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# KANSAS FARMER

Volume 76, Number 22

MAIL & BREEZE

November 4, 1939



NATIONAL CORN HUSKING CONTEST ISSUE



THE OUTSTANDING  
TRUCK FOR THE MONEY

# FORD V-8 FOR 1940



ALL THE WAY through the big new 1940 Ford Truck line you'll find value in construction, performance and economy that means "the outstanding truck for the money."

Three eight-cylinder engine sizes — 95, 85 and 60 hp — to match the engine to the job.

The 1940 Ford Truck line is the broadest in Ford history. Six wheelbases — 42 body and chassis types.

There's new modern appearance in the 1940 Ford Truck. New engine and chassis accessibility, making it easier to check the oil, service the distributor and other engine accessories, as well as clutch, transmission and rear axle. New, softer, more comfortable seats in Regular cabs. These and many more improvements join a host of time-tested, time-proved Ford features in 1940.

See the new Ford Truck at your dealer's. Compare it with any other truck. Arrange for an "on-the-job" test and know the difference before you spend another truck dollar.

• FORD MOTOR COMPANY, BUILDERS OF FORD V-8 AND MERCURY CARS, FORD TRUCKS, COMMERCIAL CARS, STATION WAGONS AND TRANSIT BUSES

## FORD FEATURES FOR 1940

New modern appearance • Increased engine accessibility • Increased chassis accessibility • Choice of power—95, 85, 60 hp • 42 body and chassis types • New Sealed-Beam Headlamps • Bigger batteries, larger generators with auto-	matic voltage regulation • Semi-centrifugal clutch • Full-floating rear axle with straddle-mounted pinion and ring gear thrust plate • Two-speed axle (optional at extra cost) • Ford Engine and Parts Exchange Plan.
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## Almost Any Crop for Silage

By ROY FREELAND

JUST about every crop on the farm is now used as silage by some stockmen. First came sorghum crops to take the spotlight from corn as desirable row crops to be ensiled. Then came alfalfa, Sweet clover and other legumes. Wheat, oats, rye and other cereal grasses have been followed by Sudan, and even native prairie grasses.

Instead of one busy season for silo filling the job is now in style the year around. In many instances permanent silos are filled, emptied and refilled, possibly 3 or 4 times with several different kinds of crops, all in one year. We've learned that our dry weather crops of corn can be successfully saved in silos, we've learned to improve our poorer silage by addition of molasses, and dairymen in many areas are obtaining satisfactory results from the A. I. V. or "acid" method of silage preparation.

Changes and new ideas in silage preparation have followed one another in such rapid succession as to bring upon many of us a feeling of bewilderment—a sense of wondering what the future holds.

### Silage Increasingly Popular

Undoubtedly one thing we can expect in years to come is more feeding of silage. Due to the new methods of storing, new feeds included as silage crops, and new ways of handling, silage seems destined to ever-increasing popularity. Dr. C. W. McCampbell, head of the Kansas State College Animal Husbandry department, a veteran in silage experimental work, is one who advises continued increases in silos and feeding of silage in this state.

He considers that for economical production, at least 50 per cent of the Kansas farms and ranches that handle beef cattle should have silo capacity equal to their minimum silage requirement for at least 2 years. Maintaining twice the needed silo capacity and filling all empty silos each fall will enable one to maintain an extra year's supply of high class roughage in normal times, and in case of feed shortage a cattle owner will have on hand enough good roughage to carry him another year. Dr. McCampbell points out. Such a plan could eliminate worry, extra feed cost, and the possibility of sacrificing good herds for want of feed. The plan is entirely possible and practical because silage may be kept indefinitely in a good silo. Even trench silos have preserved silage well for 11 years and longer.

Silage has a number of natural advantages which serve to explain why use of this feed has increased so rapidly and is expected to increase still more in years to come. First of all, as listed by Dr. McCampbell, silage crops go into the silo at the time

their feeding value is greatest, and ensiling retains this high feed value indefinitely. Acre value of crops from a silo averages about double that of crops fed from the shock. Probably next important is the fact that silos make possible the saving of feeds in their original form from years of abundance, to be used during years of scarcity.

Ensiling is the cheapest method of harvesting crops suitable for silage purposes and silage, next to grass, the best of all feeds as a livestock conditioner. Feeding from a silo adds greatly to the economy and convenience of livestock management. Putting crops in silos enables stockmen to save virtually all the leaves and reduces waste in feeding by 40 per cent or more.

What about the cost of silos? Testimony from silo users indicates better types of upright silos vary from around \$3.50 to \$5 or \$6 for each ton of capacity, depending on size and materials used.

Upright temporary types vary from 50 cents to \$2 or \$3 for each ton capacity. Trench and pit silos can usually be dug with home labor during idle time at virtually no cost. If they are constructed the cost can be expected to vary from 7 to 9 cents square foot of surface or about \$100 ton of capacity. Silos come in different shapes, different sizes and at different costs to fit every kind of circumstances found on Kansas farms.

—KF—

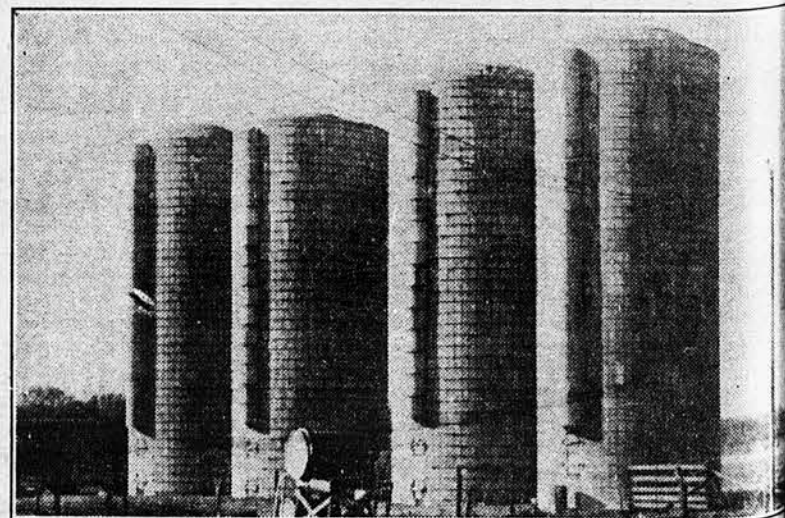
### Farmers Union Meets

Wakeeney was host to 400 or more delegates at a 4-day convention of the Kansas Farmers Union and its auxiliary organization, October 24-27. Prominent speakers included: Dr. M. Dickinson, president of the Arkansas Farmers Union; Charles G. Baderup, president of the Constitution Money League of America and former Nebraska Congressman; and Joe Vesecky, formerly of Timken, now National Farmers Union president. John Fengel, of Lincolnville, Kansas, president, opened the meeting. Esth. Ekblad, of Leonardville, state junior leader, directed a program for young people.

—KF—

### Kansas Farm Calendar

November 15-24 — National Grain Convention, Peoria, Ill.  
December 1-9 — National 4-H Club Congress, Chicago, Ill.  
December 2-9 — International Livestock Exposition, Chicago.  
December 4-7 — Denver Poultry Exposition, Denver.  
February 20-23 — Thirty-Seventh Annual Western Tractor and Power Farm Equipment Show, and Annual Southwest Road Show and Show, Wichita.



More than 1,200 tons of silage are put in these 4 big uprights on E. C. Kielhorn's farm at Cambridge. They were filled extra full as they still bulge over, after 2 weeks.



## Rules of National Husking Contest

TIME—80 minutes.

**TIME OUT**—Time out will be granted a husker only for emergencies and never because of accidents to his personal equipment.

**HUSKING ROWS**—The contestant will husk 2 rows at a time. He is required to take all the corn on the 2 rows being husked, even if some of the stalks lean into adjoining rows. He must leave alone corn on adjoining rows which may lean into the 2 rows being husked.

**LOOSE CORN**—The contestant is required to pick up corn that lies on the ground between the 2 rows being husked and loose corn lying between the hills in the 2 rows being husked. All corn left on the ground in that area will be gleaned against him. Ears which are husked and miss the wagon on the row will be gleaned against the contestant unless the contestant recovers them. An ear which rolls off a full wagon may be recovered for the husker by the wagon officials.

**HUSKING ENDS**—A contestant may husk across the ends while the wagon is turning. However, he must finish out to the end the 2 rows he is husking and must husk all corn from the next 2 rows he is beginning. No meaning will be done across the ends.

**COACHING**—Coaching is prohibited.

**DRAWING LANDS**—Lands and wagons will be numbered and drawn by farm.

**ELIGIBILITY**—Only amateur huskers may compete. Representation in the National Corn Husking Contest of 1939 shall be limited to 2 contestants from each of the state contests sponsored by members of the National Corn Husking Contest Association in South Dakota, Kansas, Iowa, Illinois, Nebraska, Minnesota, Indiana, Wisconsin, Ohio, Missouri, and Pennsylvania.

**GLEANINGS**—Gleanings are the merchantable corn which the husker has failed or failed to throw into his wagon. Any ear is considered merchantable which has a band of sound corn 3 or 4 inches around the cob. For each pound of gleanings charged against the contestant, he shall have 3 pounds deducted from his load.

**HUSKS**—Husk deductions are determined by taking the husks from a 10-pound sample from each load and weighing them on a delicate scale. Five ounces per 100 pounds are allowable without deduction. For the next 4 ounces above 5, deduction will be at the rate of 1 per cent an ounce. For each ounce above 9 ounces deduction will be at the rate of 3 per cent an ounce. This deduction is made from the total amount of corn husked.

**RESULTS**—The winner is determined by adding deductions for gleanings and husks and subtracting this total from the weight of corn brought from the field. The contestant with the largest net pounds is the winner.

—KF—

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Hope that X-Bar-Y Ranch doesn't decide to raise elephants."

Kansas Farmer for November 4, 1939

# There's *Stamina* in this Tractor Oil, too!

# 150-HOUR VEEDOL

**CECIL VINING** of Richmond, Kansas, 1938 State Corn Husking Champion . . . 32 years old; over 6 feet tall; weight 200 pounds. He's got the stamina that wins.

**W**HEN the "battle of the bang-boards" begins, only the pickers with stamina will have a chance. They will be able to stand up and take it for a full hour and twenty minutes . . . no time out for rest . . . no breathing spells . . . just gruelling work at top speed for eighty minutes . . . throwing as much as a ton and a half of corn, one ear at a time.

Your tractor oil must have that stamina, too . . . that ability to stand up hour after hour in pounding cylinders . . . to resist the extreme degrees of heat and friction . . . to come home a winner in economy and performance. 150-Hour Veedol has that stamina and has won its place.



## 150-HOUR VEEDOL CUTS COSTS 5 ways in your gasoline tractor

1. **Saves Fuel** . . . Reduces power "blow-by", minimizes dilution . . . thus saves fuel consumption.
2. **Saves Oil** . . . In many cases doubles operating hours between oil refills.
3. **Saves Losses** . . . Ends time and money losses from needless breakdowns.
4. **Saves Repairs** . . . Greater resistance to heat and friction cuts costly tractor repairs.
5. **Saves Tractors** . . . By reducing wear, assures long, economical tractor life.

**P**UT 150-Hour Veedol through any tractor test and it will come out a winner every time . . . and no wonder! This great oil is made 100% from the world's finest crude, Bradford-Pennsylvania . . . and it's made in the world's largest refinery of Pennsylvania lubricants.

Hour after hour, under the toughest operating conditions, Veedol provides a positive piston seal . . . with less sludging . . . less oxidation . . . and less fuel consumption.

If you have not tried 150-Hour Veedol, a single 5-gallon pail will prove to your complete satisfaction that here is "a better tractor oil by the clock". Important: In winter, Veedol has the quick fluidity to assure fast, free starting plus the stability to hold its body after engine warm-up.

100% PENNSYLVANIA . . . "A Better Tractor Oil by

SEE THE VEEDOL DISPLAY  
AT THE HUSKING CONTEST

Lawrence, Kansas . . . November 2nd and 3rd



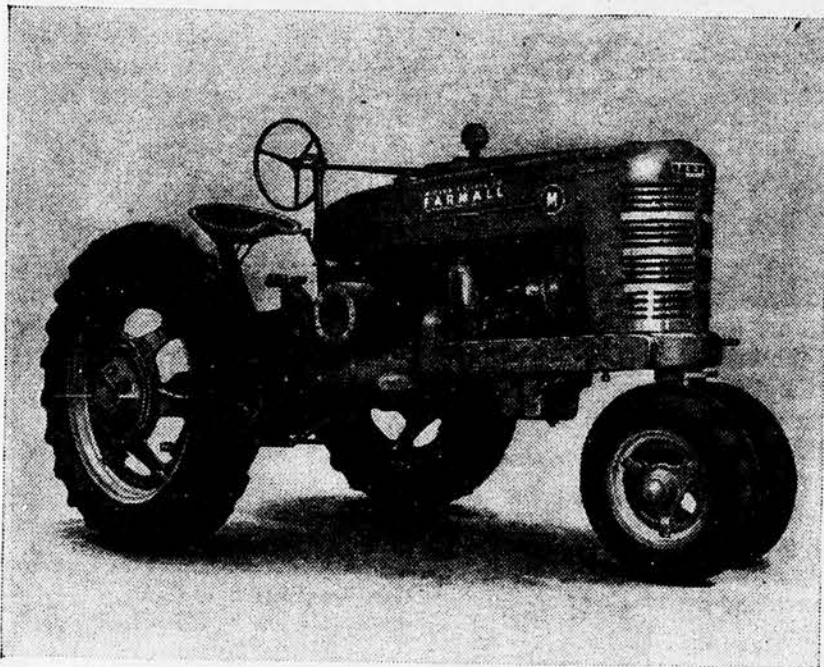
the Clock"

Copyright 1939 by Tide Water Associated Oil Company

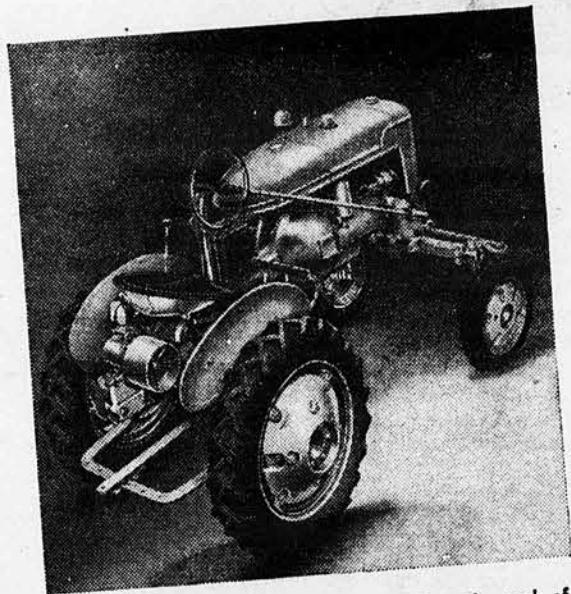


# MEETING PLACE OF CHAMPIONS ... MEN AND MACHINES

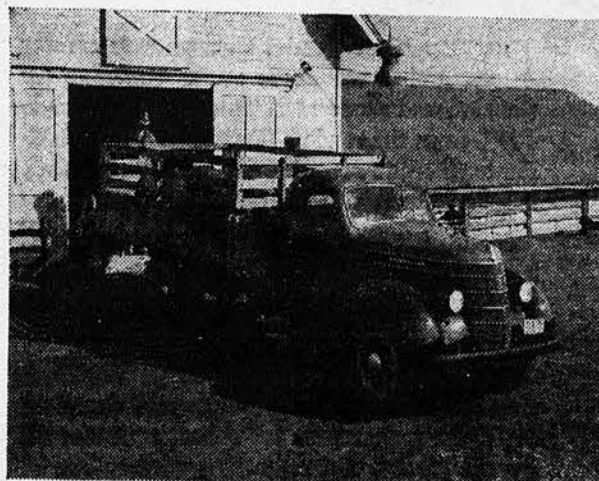
## NATIONAL CORN HUSKING CONTEST LAWRENCE, KANS.—NOVEMBER 2-3



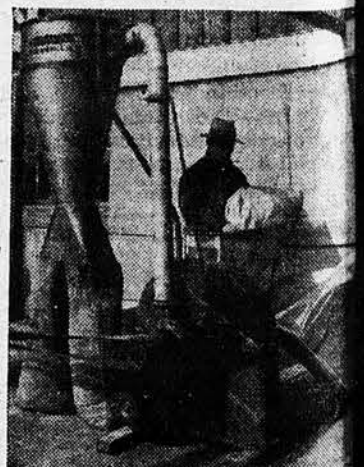
Farmall-M is the big brother of the handsome new Farmall family. It is a powerful brute, but will work all day at low fuel cost. Farmall-M and middle-size Farmall-H have many important features, including a 5-speed transmission with 16-mile road speed on rubber.



The new Farmall-A with "Culti-Vision." It does the work of four horses . . . at the cost of two. Its many outstanding features put Farmall-A in a class by itself. See Farmall-A at the Harvester Exhibit on the contest grounds and ask about the wide variety of direct-attachable machines.



Your farm-to-market hauling problem is solved once you buy an International Truck. Internationals are modern in appearance . . . practical in performance. Shown here is the 1½ ton Model D-30. Ask for a demonstration.



McCormick-Deering Hammer Mill No. 10 grinds practically all grains and roughages. Priced surprisingly low, this mill offers you great value. Other sizes also available.

### BE SURE TO SEE INTERNATIONAL HARVESTER'S DISPLAY OF NEW EQUIPMENT

● On November 2nd and 3rd the eyes of farm folks will be focused on agriculture's great annual event . . . the National Corn Husking Contest. This year Lawrence, Kans., plays host to visitors from many states who come to watch the champion huskers perform.

Other champion performers will be on hand, too—sure to attract their share of attention. We mean the new Farmall Tractors and the variety of McCormick-Deering Machines and International Trucks which will be on display at the International Harvester Exhibit on the contest grounds.

Make the Harvester exhibit your headquarters for the big two-day championship event. And, while you're with us, make a note of the equipment you need for a winter wind-up and a quick start next season. Back home . . . see your McCormick-Deering dealer. Ask him to explain how quickly and inexpensively you can put modern McCormick-Deering equipment to work on your farm.

**INTERNATIONAL HARVESTER COMPANY**  
(INCORPORATED) Chicago, Illinois  
180 North Michigan Avenue  
BRANCHES SERVING KANSAS: Hutchinson, Salina, Topeka, and  
Wichita, Kans., Kansas City and St. Joseph, Mo., and Lincoln, Nebr.

# INTERNATIONAL HARVESTER



# 16<sup>th</sup> NATIONAL CORN HUSKING CONTEST COMES TO KANSAS



Air view of field in which the National Corn Husking Contest will be held.

## THREE BIG DAYS . . .

**Wednesday, November 1 — Resource-Full Kansas Exhibit**  
**Thursday, November 2 — Farm Power and Equipment Day**  
**Friday, November 3 — National Corn Husking Contest**

TWENTY-TWO of the nation's speediest corn huskers will compete for world's championship honors in the National Corn Husking Contest, which will be held on the H. Leonhard farm, 3 miles northeast of Lawrence, in Douglas county, on November 3. They will be the pick from more than 400 county and state elimination contests held in 11 Corn Belt states, and they will slash and rip plump ears of corn from their husks quicker than the eye can follow. In each case the state champion and runner-up both are eligible to the national. This admittedly is the world's greatest agricultural sporting event. Kansas Farmer Mail and Breeze invites you to attend. It is a free show for everybody in general and for farm folks in particular. There is no charge for admission and 300 acres of free parking space have been provided. Officials in charge are endeavoring to make this one of the best vacation days of the year for Kansas folks.

More than 2,000 officers will be on duty directing traffic and parking cars. When the aerial bomb goes off starting the contest, gates will be opened so visitors can follow the huskers thru the field in special lanes prepared for their convenience. Radio broadcasts, loud-speaker systems, an official announcers' platform and scoreboard all will be used to keep folks attending the contest informed of everything going on. All arrangements are being gauged for the convenience and comfort of the contest visitors.

Awaiting the champion huskers is an excellent field of hybrid corn planted especially for this great contest. It was grown under the expert supervision of F. H. Leonhard and his son, Lawrence. The field is clean as a pin. This corn was planted May 16, under ideal conditions and has produced a crop that is estimated at 60 to 75 bushels an acre. It was not irrigated.

Popularity of this national contest is shown by the fact that it has grown from a one-day event which drew a few hundred people to this year's 3-day celebration, crammed full of interest and action, which will attract perhaps 150,000 people.

Haskell Institute Indians helped dedicate the contest field, near Lawrence, by showing early Indian method of planting—putting a fish in each hill of corn for fertilizer. They are: William Mehojah, a Kaw; Arthur Rowledge, an Arapahoe; and Marvin Littlehole, a Ponca. In background, J. C. Mohler, secretary State Board of Agriculture, ready to plant a round.



Part of crowd following a husker at the 1938 national contest in South Dakota.



The first day, November 1, will be the opening day of the "Resource-Full Kansas Exhibit," which is being presented by the Kansas State Board of Agriculture. It will be housed under a huge 500-foot tent, and is designed to show the great natural resources and commercial development of Kansas, as well as many services of our state government. Several hours of interest await folks under this "big top." Band concerts and 10 special acts put on by 50 expert performers will complete a full day's entertainment.

Second day, November 2, is Farm Power and Equipment Day, when the latest designs and improvements in farm equipment will be featured. This will be an exhibit primarily for farm folks, with factories and dealers setting up more than a half million dollars worth of machinery for their inspection. Equipment has been moving onto the 60-acre machinery show arena which adjoins the contest field for 3 weeks. It will be one of the

[Continued on Page 16]



# Passing COMMENT

I HAVE been requested, in view of the approaching National Corn Husking Contest, to relate some of the "tall corn" stories told to me by various old-timers.

Kansas is a land of extremes; extremes in crops, extremes in weather, extremes in prosperity and extremes in adversity. The reason Kansas has remained unperturbed for  $\frac{3}{4}$  of a century and more is due largely to the fact that the people who settled the state, for the most part, had never experienced easy circumstances and didn't anticipate any flowery beds of ease, consequently they were not expecting to find any. Tens of thousands of the men had for 3 or 4 years slept on the ground, drank water out of streams polluted with decaying carcasses of deceased mules, marched until they actually fell asleep while moving forward automatically, and had reached the place where hardships became normal and privation just a matter of course.

I will cite a few instances, not giving the actual names of the men mentioned, but illustrating how the human animal can adjust himself to circumstances. If they had taken life as seriously as they would have been justified in taking it, most of them would have been buried before the war was over. No doubt, some of them were cowards. In fact, I have heard a number of them privately acknowledge that they were, and not only admit their cowardice but greatly exaggerate the facts.

There was Jason Bickson who served with Sherman thru all the campaign before Atlanta and in the march to the sea. He admitted that he had often been scared and made several runs which broke all the speed records of any of the professional foot racers. "But," he said, "the worst I ever was scared was at Mission Ridge. I got right in a Rebel cross-fire and how I escaped I can't understand. You may not believe it, but I went into that fight with a full crop of red hair and the finest outfit of whiskers there was in Sherman's army. When I cum out my head was as smooth as a peeled onion, not a hair longer than  $\frac{1}{4}$  of an inch from the nape of my neck to my eyebrows, all cut off by bullets, and the curious thing about it was that nary one of the bullets even cut the skin.

"Also, the bullets trimmed my whiskers as close as the other bullets had cut my hair. The

## Kansas Offers a Glad Hand

By ED BLAIR  
Spring Hill, Kansas

Variety's The Spice of Life  
We know this out in Kansas  
Though some make noise, there's little strife  
Out here in sunny Kansas  
Here some raise corn and others wheat  
To feed the world for all must eat  
And some folks raise the sugar beet  
You can't beat these in Kansas!

Variety's The Spice of Life  
We raise some hogs in Kansas  
And Texas cattle still run rife  
On bluestem grass in Kansas  
But if too slow or hard the toil  
There's wealth here hidden 'neath the soil  
So take a shot and drill for oil  
A lot win here in Kansas!

Variety's good stuff we say  
We have it here in Kansas  
And even on election day  
Count votes as cast in Kansas  
So if industrious and fair  
Will give and take—are on the square  
You can't beat Kansas anywhere!  
A glad hand's yours in Kansas!

By T. A. McNeal

most surprisin' thing was none of them bullets touched my mustache which, at that time, measured 6 inches in length. My nearest friends didn't recognize me when the battle was over."

There also was Jack Sparks, who rejoiced in the title of "Tiger Jack," self-proclaimed the greatest Indian fighter on the frontier. I asked him one day what he considered his most thrilling adventure when fighting among the Indians.

"Well," he said, "I always so regarded my rescue of a white woman who had been captured by the Sioux Indians. I heard about it and sed to myself, says I, 'Never let it be said of Tiger Jack that he permitted a white female to be carried away by the murderous savages into a captivity worse than death, so long as life is in my body and I am able to ride and shoot.' So I saddled up my favorite huntin' horse, I called him Greased Lightin', took a revolver in each hand and the bridle rein between my teeth and rode right into the middle of the Indian camp with a yell that echoed thru the canyons of the Rocky Mountains, shootin' both revolvers. Them Indians wuz plum paralyzed when I let out that yell. I knowed that the woman was confined in the tent of the head chief. I dashed right thru the openin' of the tent, grasped the astonished lady and swung her up on to my saddle horn and turned and dashed out of the camp before the Indians re'ly realized what was goin' on."

"But Jack," I suggested, "how could you yell that way when you had the bridle rein in your mouth, and how did you grab that lady when you had a revolver in each hand and was shootin' in that promiscuous manner?"

That sort of stumped Tiger Jack for a minute, but he recovered and said, "Young feller, the reason Tiger Jack has lived as long as he has is that he is always able to do whatever the occasion demands."

The exaggerations of the frontiersman were not lies; they were mere figments of the imagination, romances not intended to deceive, but to add proper embellishment, to impress the essential facts on the memory of the listener.

It is necessary to take that fact into consideration in order to properly understand the "tall corn" stories and other relations of early agricultural statistics.

For example, there was George Ebersole who owned some land as rich as there was in the Medicine Valley. In his farming operations George touched the high and low of corn production. During a period of 15 years he only raised one bumper corn crop. His faithfully kept diary showed that his average yield during 14 years was  $\frac{1}{2}$  a peck or 4 quarts of corn, cobs and worms to the acre. In June of every one of these 14 years George figured confidently on a crop of at least 60 bushels an acre.

George really was a very sentimental and sympathetic man. He related, with tears running down his cheeks, how his sympathies went out to the little baby corn worms which had been brought to the edge of the cornfield to wait for the crop to develop. Then the drouths and hot winds came, the corn began to wilt. George reduced his estimate of the prospective crop from 60 to 40 bushels. He went to sleep under the shade of a cottonwood tree and woke up 3 hours later. When he had wiped the dust out of his eyes he looked at the cornfield and reduced his estimate from 40 bushels an acre to 15 bushels.

Then he went to sleep again and did not wake up until the next morning at 7 o'clock. The temperature was already 100 in the shade. By 1

o'clock it had climbed to 120 in the shade and 150 in the sun. He looked at the cornfield and reduced his estimate from 15 bushels an acre to half a peck. He said that what excited his pity was to see a mother worm fanning her offspring with a peppergrass leaf while they were panting in their agony with their tongues sticking out of their mouths and pleading for a drop of water. He said that he did not get any corn at all that year but he gathered the remains of 60 bushels of worms which he ground into worm meal and fed to the birds the following winter.

But perseverance was finally rewarded. The rains happened to come just right one year and he figured that in that one year he raised enough to make up for 14 years of deficiency. "The fact is," said George, to the other members of the Loafers' club, "I got so blamed tired harvestin' that crop of corn that I kin hardly bear to look at an ear of corn since. The stalks were so thick that I couldn't cut them with a corn cutter and they were so close together that I hadn't room to cut them with an ax. I hired a couple of men with a cross-cut saw to saw the stalks off, but the first day one of them had a leg broke from a cornstalk fallin' on it and the other one was so near smothered to death that we had a dickens of a time revivin' him.

"Just to make up for the years when I didn't raise any corn at all, nearly all the stalks had 15 ears on them. The cobs weren't long enough to hold the grains that tried to get on the cob. I gathered 20 bushels of shelled corn to the acre; corn that fell on the ground because there wasn't room for it on the cobs.

"It was awful slow work harvestin' that corn. I had to get a ladder and climb the stalks pullin' off the ears as I clum up, and there was where I blamed near met my finish. You see the weight of them ears, many of them weighin' over 10 pounds, bent the stalks over and when the ears was pulled off that took the weight off the stalk and it sprung back with such force that it throwed me 25 feet into the air and also throwed me loose from the stalk. When I hit the ground the jar blamed near knocked the wind out of me.

"You ask me what was the yield per acre? Well I lost the exact record I kep of it, but my best recollections is that the average yield was 450 bushels per acre. That made a general average of 30 bushels per acre for the 15 years.

"The cobs was something to write about. You may doubt it when I tell you that I fastened 3 of those cobs together, took the pith out of them and used them fur several years as a waterin' trough. It was 75 feet long and was sufficient for waterin' 80 head of steers. When finally I got that corn crop harvested I said, says I, 'This here is the last corn I am ever goin' to raise.'"

## THE KANSAS FARMER

Continuing Mail & Breeze

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MARCO MORROW ..... Assistant Publisher  
H. S. BLAKE ..... General Manager

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One year 50 cents; three years \$1.



# FARM MATTERS

*As I See Them*

I REGRET I cannot be in Kansas on November 3, when the National Corn Husking Contest is held in Douglas county, near Lawrence, on the old Governor Robinson farm. I did attend one husking contest there, by the way. It was back in 1931 when the state meet was held on this same farm which has been operated so efficiently for many years by F. H. Leonhard. I am glad to know that Lawrence Leonhard, a son, is farming there with his father. We need more father-son partnerships of this kind in our state. It would be a healthy thing for our agriculture.

From all reports I get from home, this year's national contest will be one of the greatest ever held. I heard many of the plans before coming back to Washington for this special session of Congress. I know, as you folks do who have had anything to do with such fine sporting matches, that plans must be made well in advance. As a matter of fact, these Lawrence folks, who make up the local husking contest committee, have had this year's national contest in mind, not for weeks or months, but for years.

Soon after the first national corn husking contest was held in Norton county, Kansas, in 1930, an invitation was extended to Kansas Farmer by the Lawrence Chamber of Commerce to bring the next national held in this state to Douglas county. Frequently since then, the capable secretary of that organization, George Hedrick, has renewed that invitation. Then about 2 years ago, a delegation from Lawrence called on the Kansas Farmer editors and laid out plans for conducting this year's big event.

I was particularly interested to note that the Lawrence committee included Emil Heck, one of the best farmers in the Kaw Valley. And I note now, in the detailed plans drawn up for the 1939 National Corn Husking Contest, that Emil Heck is general chairman of the Lawrence executive committee for the corn husking contest.

It not only shows wisdom to have a successful farmer head up such a committee, but it shows plainly enough what kind of people go to make up the Chamber of Commerce and business men of Lawrence. They all recognize the vital importance of agriculture to their town and to the whole state. I am proud of Kansas for many reasons. But my pride in my home state is no more genuinely justified than in the fact that town and farm folks know how to get along together and work in co-operation.

Now these folks down at Lawrence have been working with our editors for many months per-

fecting plans that will make everything as convenient as possible for the many visitors who will attend the 1939 National Corn Husking Contest. An excellent field of hybrid corn has been grown by the Leonards. Wide lanes will be cleared thru this field so folks can watch the huskers work. All traffic will be under the personal direction of Col. E. T. Moomau, director of the state highway patrol. Eating concessions will be watched over by the state board of health. The whole event is set up so farm folks can make it an interesting vacation day from their regular rounds of farm work. I hope all who can will attend.

One of the big features, aside from the husking match and the huge machinery show, in which the latest farm equipment will be displayed, is the all-Kansas exhibit. The Legislature, the State Board of Agriculture, and many state and commercial agencies are working to make this Kansas exhibit something to remember. That they will succeed is, of course, assured.

Now, Kansas folks attending the contest are bound to find many things in this great Kansas exhibit that will open their eyes and generate a stronger feeling of pride for their home state. But there is another value to such an all-state exhibit. It will prove, in no uncertain way, to visitors from out-of-state that Kansas is a wonderful place in which to live and in which to establish a business—farming or otherwise. With all the publicity regarding this national contest directing attention to Kansas, and with more than a hundred radio stations telling the story the day of the contest, Kansas is sure to be remembered and mentioned in the future as outstanding agriculturally as well as in many other ways.

The Kaw Valley, in which Lawrence is located, is a very attractive place to be in any season of year. And fall weather will add its special appeal by contest day. All in all, if there is one vacation day you can take off this fall, I strongly recommend a trip to Lawrence on November 3. I personally wish to congratulate and thank

every member of the executive committee at Lawrence, and all the folks of our famous Kansas University town and Douglas county for the months of untiring effort they have devoted to making the national contest a success. The major credit for conducting this huge event belongs to the local folks.

Again I regret to say that I cannot be home on November 3, to personally take a part in welcoming my Kansas friends and out-of-state visitors. But my thoughts will be with you.

Down here in Washington we have been up against something serious. We are doing our dead-level best to keep the United States in a position where agriculture can hold great, gala husking contests; a position that will enable every man and woman, every boy and girl, to live peaceful lives entirely free from the restrictions and heartaches of war.

I have every sympathy with the countries that have been overrun by force; and for England and France. But I cannot agree that England and France are fighting our battle. I have no feeling of obligation which would lead me to vote for our boys to go overseas and die merely to settle boundary lines in Europe. If some other power attempts to invade our country, that is a different matter. But the idea of our getting the habit of entering the frequent wars in Europe is far beyond all good judgment.

We simply can't afford to spend millions of dollars ourselves, lend millions more—which we don't get back—and risk the lives of our best young men to police Europe. We cannot now or ever be at the beck and call of some country or another in Europe when some whim or expression of greed starts a war. Our job is right at home, and it is big enough to demand all of our attention and our best efforts.

Let us get our own house in order before we take chips in some other country's war game, in which we would probably pay the bill. If we solve our very difficult farm problem, make sure that farmers get a decent price for what they produce; if we end the unemployment problem; if we accomplish just those two things while this present European war is waging, we will have our time and energy sufficiently well employed.

*Arthur Capper*

Washington, D. C.

## A Farm "Grind" That Pays

*Feed Made More Palatable; Losses Reduced*

IF YOU should happen to ask, hundreds of Kansans will tell you their farming operations are becoming pretty much a "grind"—increasingly so each year. To these farmers the word "grind" means "cranking up the old tractor or motor to prepare a little feed."

They say grinding is one of the most important jobs on their farms, and the testimony comes from those owning only a few head of stock, as well as those who handle extensive herds.

When you stop to think of it, few machines have done more to help us along thru all types of conditions than the trusty old feed grinder. This is especially true in Kansas where we utilize large quantities of rough feeds, and where we make considerable use of wheat and sorghum grain in feeding practice.

Arthur Higley, Jackson county, tells the story of grinding very much as you would hear it from hundreds of others

thruout the state. Mr. Higley farms a quarter-section in Jackson county, and owns average numbers of stock.

During the dry years his principal feed for cattle was sorghum fodder. Altho the fodder carried grain, it was not exactly a choice feed when fed whole. Cattle left much of the fodder uneaten and it was necessary to buy supplementary feeds to carry them.

Under these circumstances, Mr. Higley bought a grinder. By putting his fodder thru this machine, it was converted into a palatable feed and all waste was eliminated. Buying additional feeds to supplement the ground fodder was not necessary.

Mr. Higley found that savings of not having to buy other feeds were great enough to more than pay for his grinder the first year. The grinder still has several years of good wear in it, and it is used for preparing grains and roughages for all kinds of stock and poultry kept on the Higley farm.

H. H. Johnsmeyer, Marion county, declares he would rather feed ground fodder than silage to his cattle and sheep. He usually winters about 500 lambs and 100 head of cattle, and the principle feed consists of ground Atlas sorgho fodder, produced on an average of 40 acres each year.

Atlas, on the Johnsmeyer farm, is cut with a binder and shocked in the field. As it is needed, thruout the winter, this feed is hauled in and put thru the grinder. As the fodder is ground it is mixed with cotton seed cake, which, with seed on the fodder, makes a highly desirable ration. Three bales of alfalfa hay also are ground with each load of fodder.

Mr. Johnsmeyer finds the principal disadvantage with this system is the fact that a long period of rain or snow causes difficulty in hauling feed from the field. Experiments at the Fort Hays Branch of the Kansas Agricultural Experiment Station bear out the general

belief that grinding greatly increases the value of fodder. Cattle feeding tests there have indicated that ground kafir fodder will produce nearly 50 per cent more gain to the acre than will whole kafir fodder.

Probably one of the greatest contributions of feed grinders is in utilization of wheat for hogs. Wheat in the ground form has been proved decidedly superior, in tests thruout the Midwest. A similar situation exists in feeding grain sorghums. With most of our agricultural leaders advocating general increase of grain sorghum production in Kansas, it would seem this factor might lead to still more rapid increases in grinding.

Future developments of feed grinding in Kansas will take their place beside past accomplishments which have virtually given the state, for feeding, a number of grains and roughages that otherwise could not be so economically utilized for livestock.



# KANSAS CREATED A NEW AGRICULTURE



OF THE 35 territories that were admitted as states in the American Union, Kansas was numbered 21 and was, therefore, a junior member. The state still retains its youth as measured by units of time, but in experience it is mature beyond its years.

Few lands have had to face such problems as did Kansas in its early days. With no native crops of importance except corn, which had to be acclimated, the state was confronted with the necessity of creating a new agriculture, with new crops, in a new and untried region where none had ever been, with corn only as its basic crop, but aided by the luxuriant and nutritious prairie grasses.

A start was made in testing out the corn brought by the settlers from many regions, and before the state was 15 years old it had grown 8 crops that averaged 44 bushels to the acre for the entire state, a creditable record in any new region. From this point corn has spread to every one of the state's 105 counties, developing new varieties for the low and humid east, and for the higher and dryer parts of the west with its shorter growing season.

As Kansas extended the horizon of corn beyond any previously known limit for its growth, a new area for improved livestock was opened up and new demands were made for new machinery to handle the crop in larger areas with greater economy, and the history of modern farm machinery, and the improvement of modern livestock coincides with the history of Kansas.

The tall columns of figures in the archives of the Kansas State Board of Agriculture, continuous since 1860, tell the story of Kansas agriculture as no other agency can do. They tell that, with corn as the dominant crop and livestock as the chief source of farm income, the state has built the second largest livestock market and the second largest meat packing industry in the United States, and these built banks, commission houses, railroad expansion, and gave impetus to all business.

These archives tell of the development of a purebred livestock industry until the state ranks seventh in number of farms engaged, and first in Galloways, second in Shorthorns, Herefords and Polled Herefords, third in Polled Shorthorns and Milking Shorthorns, fourth in Red Polls, and fifth in Aberdeen Angus cattle, third in Percheron horses, and similar ranks among swine and sheep.

They also tell of the development of a great

## Stands First in Farms Operated by Owners

By J. C. MOHLER, Secretary  
Kansas State Board of Agriculture

dairy industry in Kansas, now the home of the second largest creamery in the United States, and a state output of more than 90 million pounds of butter in a single year and a state annual income of more than 30 million dollars; with 80 per cent of Kansas' farms supplying surplus milk and cream for market. They tell that Kansas has the largest cheese factory west of the Mississippi river and that cheese production increased more than 200 per cent in the state in a decade. At times the dairy product of the state is larger in value than the assessed value of the cows that produce it.

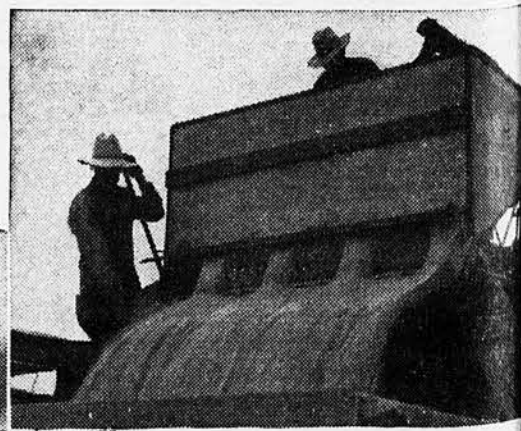
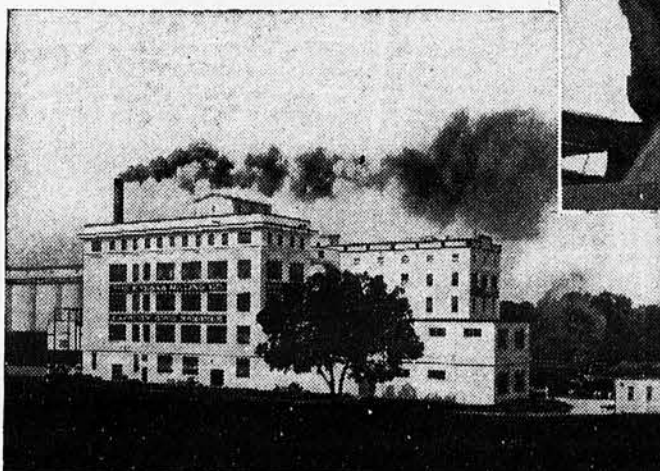
These tall columns of figures tell of the introduction of alfalfa in the state, bringing a new era of prosperity to Kansas, and to the Great Plains region, thru dissemination of its facts by the State Board of Agriculture, and thence to spread it abroad over the country. For years Kansas has been the largest producer of alfalfa seed, of unrivaled reputation and market value.

And the splendid grain sorghums, in the production of which Kansas ranks third. The figures tell of their introduction in Kansas and their

spread over the state, and the west, to take the hazard out of growing feed grains for livestock. Like the coming of alfalfa, the grain sorghums brought a new era of prosperity to the farms of Kansas and elsewhere by supplementing corn and challenging dry weather.

As these figures tell the march of years, they show the more general use of the saccharine sorghums, cousins of the grain sorghums, as an invaluable crop for hay and fodder and away from their original use as the source of the family molasses. In this latter use Kansas ranks first among the states in volume of production. Of the other sorghums, Kansas maintains a large acreage in Sudan grass for pasture and hay and has the chief market for broomcorn in the country, handling the large crop of Southwest Kansas as well as of other states.

Prior to the outbreak of the World War, corn was the dominant field crop of Kansas, but in 1914, when wheat assumed supreme importance under war conditions, Kansas came thru with an unheard of crop of more than 180 million bushels. Since that time, with its increased acreage, the state has become the largest grower of wheat in the United States, [Continued on Page 13]



Wheat assumed command as the dominant field crop in Kansas in 1914. Since then, with increased acreage, the state reached a peak production of 240 million bushels in one year.

It is natural that Kansas should rank first in milling wheat flour. Efficient plants, such as the one at left, turn out more than 15 million barrels a year.



## What Has Happened So Far in—

# The AAA Corn Program

By R. M. EVANS, Administrator  
Agricultural Adjustment Administration

AS THE abundant corn crop of 1939 nears maturity, drying in crisp fall weather, Corn Belt farmers may well take stock of the first years of the Corn Program established by the Agricultural Adjustment Act of 1938.

Farmers, planning and operating their own Corn Program for 2 years, have learned these things that might be viewed as outstanding:

1—The Corn Loan Program is a sound, workable device for preventing price collapse.

2—An Ever-Normal Granary can be established on farms in years of above-average production.

3—The Nation's corn needs can now be supplied from fewer acres and at less cost to farmers than was the case a few years ago.

The Corn Loan might be called the hub of the corn program, for it contributes both to price stabilization and to the establishment of an Ever-Normal Granary as a bulwark against years of low production.

In the 6 years that corn loans have been made, farmers of the commercial corn area have placed under loan more than 600 million bushels of corn. When the loan rate has been above the market price, as it was in 1933, 1937, and 1938, large amounts of corn have gone under seal. During the period of nation-wide drouth from 1934 to 1936, little corn was sealed, since the price was relatively high and there was, besides, far less than normal amount of corn produced.

### Lends to Co-operators

Under these loans the Commodity Credit Corporation, an agency of the Department of Agriculture, lends to the farmer who is co-operating in the program an amount for each bushel that is based on a formula contained in the Farm Act and depends upon supply and price conditions. The rate was 57 cents a bushel in 1938. At maturity of the loan, the farmer may pay off his loan and redeem his corn, deliver the corn in full settlement of all charges against it or, if a resealing program is offered as it has been the last 2 years, extend his loan for a specified period. Thru the loan, borrowers are enabled to withhold their corn from the temporary glut and depressed prices that always immediately follow abundant harvests.

This benefit derived thru orderly marketing is only one contribution of the loan program to sounder farming in the Corn Belt. Let us see how farmers have used the program in building an Ever-Normal Granary, the sort of granary they lacked when the 1934 and 1936 drouths hampered seeding operations so seriously that many farmers had to give up even their foundation herds of livestock. With 257 million bushels of 1937 and 1938 corn under seal, the AAA this fall undertook its most extensive resealing program, seeking to keep this supply of corn on the farms of

the Corn Belt and out of terminals where transportation and storage charges would increase its price to the feeder if it were needed in time of drouth. This resealing program began September 1, and is still in progress.

Farmers who are resealing their corn will earn a storage allowance of 7 cents a bushel if, at the end of the 1-year extension period, they deliver their corn in payment of corn loans. If they redeem their corn, they will not receive the 7 cents directly but will, in effect, get it in the form of a price increase.

Naturally, a part of this corn is being delivered to Commodity Credit Corporation in settlement of loans by farmers who do not have on their farms facilities for storing both their 1937 and 1938 crops and that which is coming along in 1939. But this, too, is being kept in the country in bins which have been purchased for the purpose. Whether on farms or in Commodity Credit bins, however, the corn will be withheld from market until it is needed for feeding livestock or until prices make its sale in commercial channels advisable.

### Would Last 3 Months

The new corn marketing year began on October 1, 1939. The preliminary estimate for the nation's carryover of corn, on farms and in terminals, on that date was 470 million bushels. That is something more than twice as much corn as farmers were accustomed to carry over from one year to the next in the pre-drouth period. Some farmers have worried about the danger of building too large a carryover. It is fair to point out that 470 million bushels of corn is only about 20 per cent of a normal year's corn crop and that, in event of drouth, it would feed the nation's livestock for fewer than 3 months. And we must not forget that in 2 of the last 6 years—1934 and 1936—drouth and searing winds reduced United States corn production a billion bushels below normal expectations.

Farmers doubtless are wondering whether there will be a loan on the 1939 corn crop. No definite answer can be given until November, but it is probable that a 1939 corn loan will be offered. Supply and price conditions both indicate that a loan will be called for under the provisions of the act.

During the last 3 years the average corn yield of the country has been about 28 bushels an acre. But for the period 1928-37 it was only 23 bushels. Thus each 100 acres planted to corn in the United States is producing about 500 bushels more than it did on the average from 1928 to 1937.

Utilizing all the devices of mechanized farming, improving tillage

practices year by year, retiring poorer land from cultivation and extending the use of hybrid seed corn, farmers can now produce the nation's corn needs from substantially fewer acres than they could a number of years ago.

This production of adequate corn supplies from fewer acres is of great importance in the economy of the Corn Belt. It means, for one thing, that the farmer can produce corn at

million and a half acres and soil-building legumes on another quarter-million acres.

Since around 85 per cent of all corn grown in the United States is marketed in the form of livestock, adjustment of corn supplies is important principally in terms of the adjustment in livestock and livestock products that it brings about. Here the problem of AAA is two-fold—to prevent supplies from becoming so large that they depress the market and to protect consumers by maintaining supplies adequate for their needs.

Livestock adjustment has been the more difficult because for 2 years—

## National Corn Husking Contest Winners

YEAR	LOCATION	WINNER	NET RESULTS
1924	Polk County, Iowa	Fred Stanek, Iowa	24.3 bu.
1925	Mercer County, Ill.	Elmer Williams, Ill.	35.8 bu.
1926	Dodge County, Nebr.	Fred Stanek, Iowa	30.3 bu.
1927	Fairbault County, Minn.	Fred Stanek, Iowa	15.4 bu.
1928	Benton County, Ind.	Walter Olsen, Ill.	26.6 bu.
1929	Platte County, Mo.	Walter Olsen, Ill.	25.27 bu.
1930	Norton County, Kansas	Fred Stanek, Iowa	30.3 bu.
1931	Grundy County, Iowa	Orville Welch, Ill.	31.3 bu.
1932	Henry County, Ill.	Carl Seiler, Ill.	36.9 bu.
1933	Cuming County, Nebr.	Sherman Hendrickson, Nebr.	27 bu.
1934	Martin County, Minn.	Ted Balko, Minn.	25.7 bu.
1935	Fountain County, Ind.	Elmer Carlson, Iowa	41.5 bu.
1936	Licking County, Ohio	Carl Carlson, Iowa	21.04 bu.
1937	Saline County, Mo.	Ray Hanson, Minn.	21.38 bu.
1938	Minnehaha County, S. D.	Ted Balko, Minn.	22.24 bu.
1939	Douglas County, Kan.	(To be decided Nov. 3, near Lawrence)	

less cost to the bushel. That means, in turn, profitable corn production at a relatively lower price to the bushel. This year, for instance, we are producing abundant supplies of corn on an acreage a full 10 million acres below the 10-year average.

Consequently, we should look forward to planting fewer acres to corn and more acres to soil-conserving crops. Certainly, unless there is a marked change in demand conditions during the coming months, it will be necessary to plant within smaller corn acreage allotments in 1940 if supplies are to be kept in balance with demand.

### More Soil-Building Crops

The smaller the acreage devoted to corn, naturally, the larger will be the acreage left for other crops. Under the AAA an ever-greater percentage of those acres is being devoted to crops that build and conserve the soil. With proper soil management such as results from reduced acreage of soil-depleting crops, America's great mine of natural resources in the Corn Belt will continue to provide an abundance of food for many years to come.

For example, altho most of Kansas has been cropped for only 50 to 75 years, surveys show 25.5 per cent of the state is subject to severe erosion, 46.5 per cent is subject to moderate erosion, and only 28 per cent has no apparent or slight erosion.

Into this picture has stepped AAA, with definite encouragement to farming practices that check erosion and restore fertility to eroded soil.

In Kansas, under the 1938 farm program alone, co-operators carried out on more than 1,600,000 acres of land such erosion control practices as protected summer fallow, strip cropping, contour farming, contour listing or furrowing of non-cropland and contour and basin listing. They planted 9,000 acres of trees, applied 17,000 tons of lime, and reseeded 117,000 acres of pasture by deferred grazing. They planted cover crops on almost a

1936 and 1937—farmers had no effective adjustment program. It is unfortunate that they lacked such a program during a time when it was so greatly needed—that post-drouth period when farmers were deeply concerned about rebuilding livestock herds that had been seriously depleted from 1934 to 1936. Without acreage allotments, there was little to guide farmers in determining a desirable level of livestock numbers. At the present level of consumer buying power and export demand, somewhat less than present livestock numbers undoubtedly would supply adequate meat and livestock products for domestic consumers and for exports, and would provide farmers with more satisfactory prices and incomes.

### What Will War Do?

Now, like all other businessmen, farmers are undoubtedly wondering just how the present European war will affect them. It would be presumptuous to attempt to tell them. For one thing, it depends a great deal on whether this is to be a long war or a short war. For another, there is no assurance that business activity in the present situation will follow the same course it did at the time of the World War of 1914-18. There is one important difference in that world stocks of many agricultural commodities are higher today than they were in 1914 and that many European countries have substantially increased their capacity for farm production since that time.

The export demand for pork and lard probably will be greater in 1940 than it was in 1939, but there is little possibility of these exports approaching 1920-29 levels, when the United States was able to export about 1,365,000,000 pounds of pork and lard annually. In the case of wheat, world stocks are 55 per cent higher than they were in 1914.

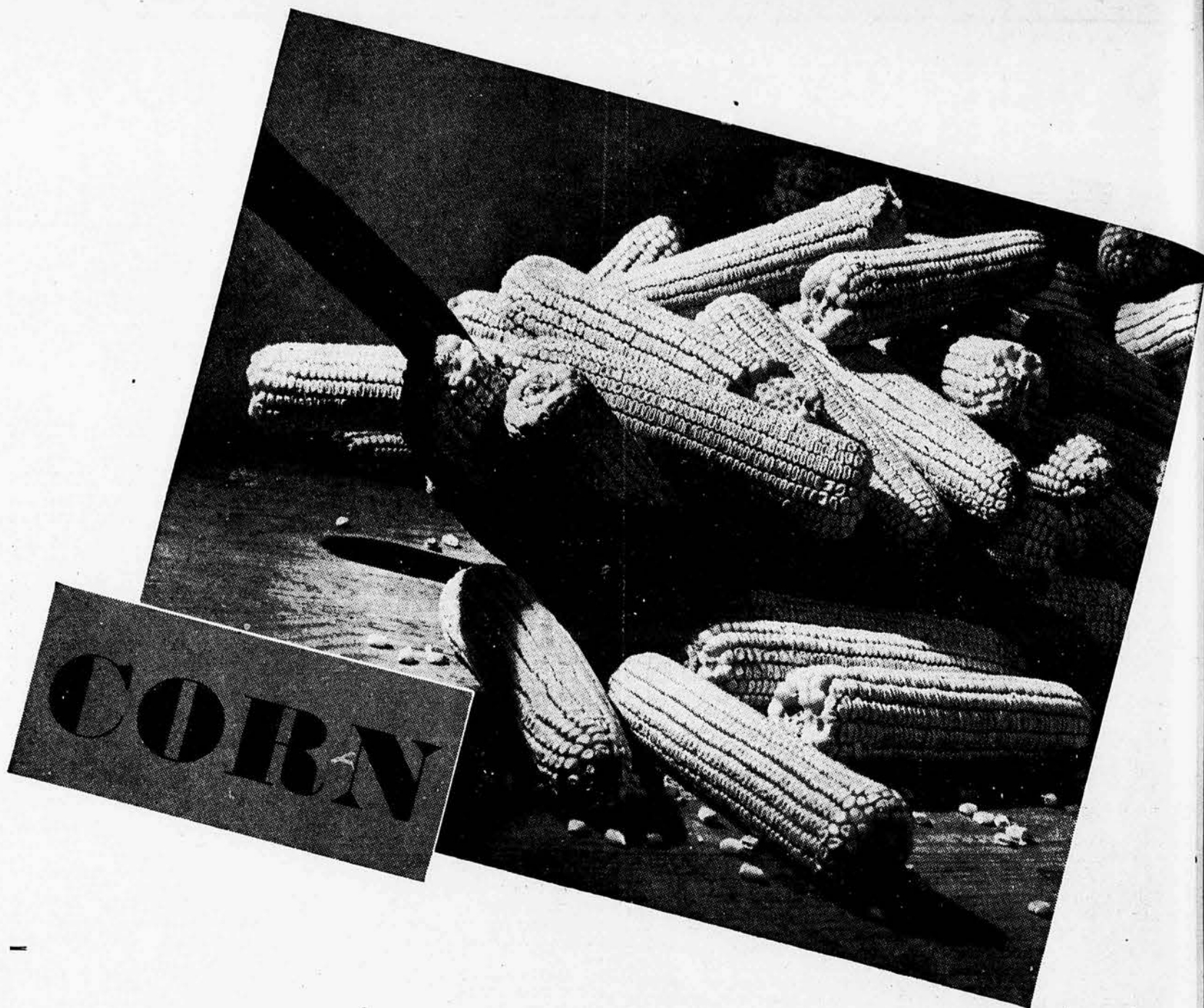
The watchword for farmers in the emergency would seem to be "caution," with an eye to future developments.

## Kansas Corn Husking Contest Winners

YEAR	LOCATION OF STATE CONTEST	NAME	ADDRESS	BUSHEL
1927	Bern	Orville Chase	Brown County	26.68
1928	Ottawa	William Lutz	Riley County	24
1929	Manhattan	William Lutz	Riley County	25.78
1930	Goodland	C. J. Simon	Barber County	26.22
1931	Lawrence	Omer Little	Miami County	22.25
1932	Abilene	Orville Peterson	Cloud County	24.6
1933	Horton	Lawrence House	Sherman County	29.42
1934-35-36	Wellsville	Lawrence House	Sherman County	24.51
1937	Humboldt	Cecil Vining	Franklin County	30.08
1938	Belle Plaine	Cecil Vining	Franklin County	22.47

(Kansas contest sponsored every year by Kansas Farmer Mail & Breeze)





**O**F ALL things green which clothe the northern zone of earth thru man's activity, corn is the most important and the most valuable. No other crop approaches it in acreage or yield; none other in economic use or value, and upon no other does so much of man's well-being depend.

Charging up the mountain sides and marching across the plains, its serried ranks have advanced until its homeland now grows more of corn, and supplies more of food to man and his kine, than all the earth beside. No other grass is so beneficent, none other so bountiful.

Land there was for the pilgrims who came to America, the home of corn, rich and vast from the hand of Nature. Seeds there were, brought from the far countries to grow the home-foods of the pioneers on an unknown soil. Climate and soil were hospitable to their plantings but it was the native corn that supplied their sustenance and made possible the defeat of the wild things of woods and waters, and the wilder men who hemmed them in with constant threats of oblivion.

From its scant seeding of a few handfuls to the acre there comes a vast arborescence to cover the earth with verdure and by its subtle chemistry to transmute the earth-mote, the rain-drop, and the sunbeam into golden nuggets of corn hidden in their fustian pouches and many fold greater in yield than any other grain.

Not in human annals was there a crop-spread so widely diffused in all lands, all climates, and in a time so short as that which followed the discovery of corn in America. Wheat antedates human history and its spread over the earth has taken all of measured time; rice has a large production but none knows its beginnings, while

**By I. D. GRAHAM**  
*Kansas State Board of Agriculture*

corn has reached every continent in the 4 centuries of its known existence.

The seasonal use of corn as roasting ears was followed in the harder months of the year by the white man's first pone, succotash and hominy, while at times necessity forced its use for coffee and for fuel. Time and the skill of American farmers produced varieties to please the palate with the delicate flavor of sugar corn, or enhance the yuletide festivities with the bursting

of the hard kernels into the snowy puffs for the popcorn ball.

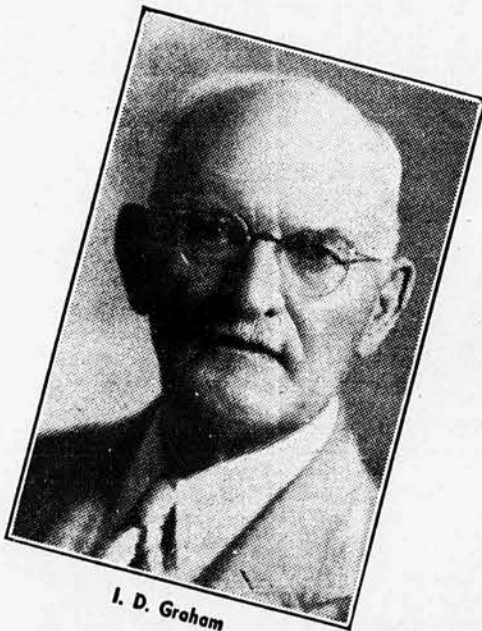
Because of its quality and abundance, corn is a universal feed for all domestic animals and poultry, either as a grain, fodder, or silage, and from it man derives his own food and a multitude of products for his convenience.

His cob pipe, his mattress, his breakfast food, oil for paint, gluten, synthetic rubber, sirup, paper, lumber, rayon silk, embalming fluid, dextrin, battleship lining, horse-collar stuffing, glucose, hydrol, caramel, ice cream, soap, salad oil, alcohol, lacquer, explosives, motion picture films, fountain pens, maltose, core binders, malted milk, germ oil, are all derived from corn and the work of the chemist is not yet done.

**B**ECAUSE of the widespread plantings of corn, have come such farm implements as the world never saw and man's power is multiplied until the American farmer is the greatest crop producer, to the man, in the world.

Corn is the basis of the vast meat packing industry with its standard out-put and a bewildering array of byproducts in leather, soap, buttons, ammonia, brushes, mattresses, fertilizers, and medicines. Corn built the stockyards and these built banks and exchanges, and extended the railroads with their service of refrigerator cars. More than any other crop corn has built America.

Blot out corn and calamity would howl, banks would close, the wheels of commerce would cease to turn, the hum of industry would fade and want and famine would stalk abroad in the land. Foster the crop with good seed and care, and business flourishes as from no other crop; transportation is burdened with traffic, factories hum with industry, and plenty sits at the table.



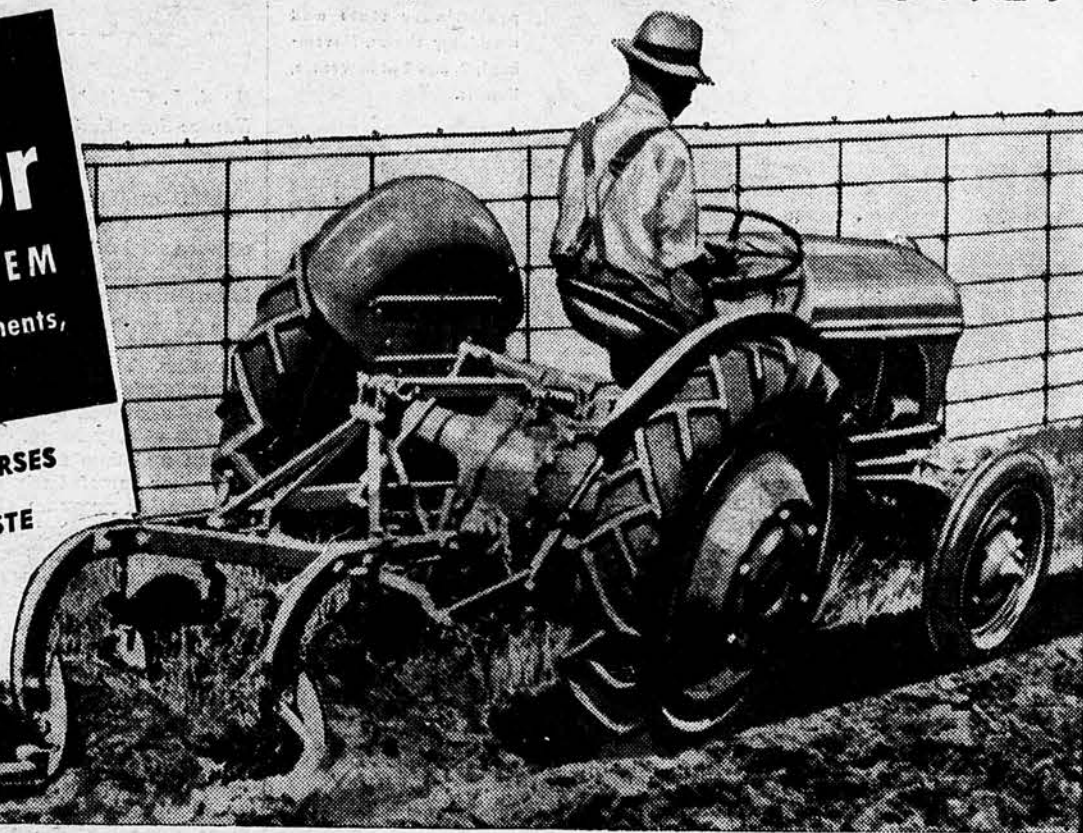
*I. D. Graham*



# TO HELP YOU TURN CORN INTO MONEY

## SEE THE NEW Ford Tractor WITH FERGUSON SYSTEM and Ferguson wheel-less implements, hydraulically controlled

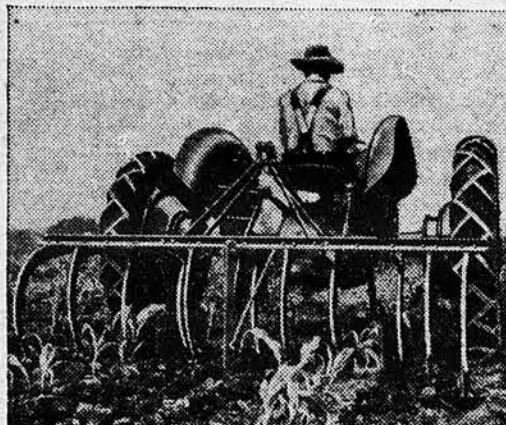
- HORSEPOWER WITHOUT HORSES
- OPERATION WITHOUT WASTE
- TRACTION WITHOUT EXCESS WEIGHT



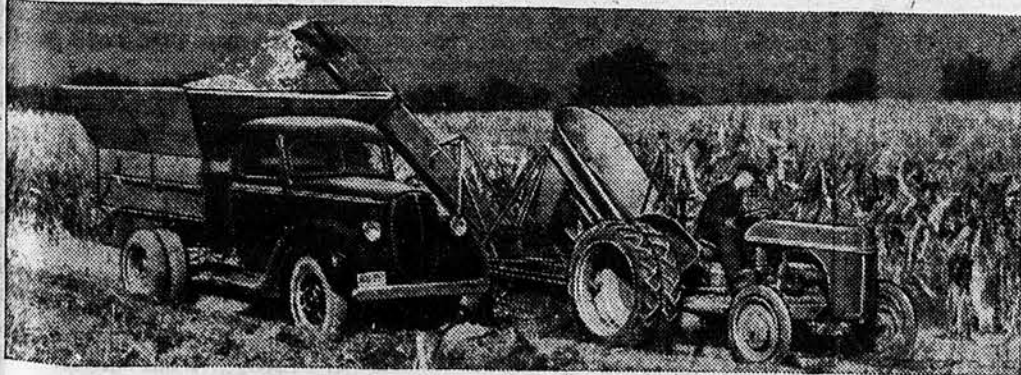
Pulling a two-row corn-picker. Power take-off and drawbar are standard equipment



No damage to stalks. No packing the land



Just sit and steer — no watching shovels!



One-row ensilage harvester behind the new Ford Tractor

FORGET your old notions about tractor power. The new Ford Tractor with Ferguson system introduces an entirely new principle. The power unit is linked to the special wheel-less implements. A simple hydraulic control system not only keeps the implement at a predetermined depth in the ground, but also lifts and lowers it quickly behind the tractor. This new farm unit will do anything that horses can do — do it better, cheaper, quicker, and with far less effort on your part.

The new Ford Tractor with Ferguson system is light enough not to pack the land, yet pulls two 14-inch plows. Traction is gained and maintained through the unique Ferguson system "line of draft."

Here is a cultivating 4-wheel tractor that operates on a gallon of fuel per hour. It is being demonstrated at the National Cornhusking Contest at Lawrence, November 2-3. Be sure to see the new Ford Tractor with Ferguson system. Visit the Ford Tractor Exhibit.



FERGUSON  
SYSTEM

TRACTOR  
(two 14-inch-plow capacity)

\$585 AT  
DEARBORN, MICH.  
Taxes (if any) extra

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Oklahoma City, Oklahoma

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BERRY TRACTOR & EQUIPMENT CO.  
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There is a local Ford Tractor dealer near you. Ask your distributor for his name and address.



# See These NEW CHAMPS

Be sure to visit the Case exhibit at the National Corn Husking Contest and preliminary state and machinery shows, November 1, 2, and 3 at Lawrence, Kansas.

A  
FASTER  
FREER  
WAY TO  
FARM



## Flambeau Red SERIES

Come to the contest . . . or go to your Case dealer . . . and feast your eyes on more tractor than you ever saw before. See the extra convenience of steering-post engine gauges and controls . . . the extra ease in operation with new auto-type shift lever and rubber-rimmed steering wheel with spinner . . . the luxury of push-button starting, the ability to work at night with full electric equipment—available when you get your tractor or any time later.

See how four speeds forward give you new capacity—a high gear of ten miles an hour for the fastest field work and for quick jumps between jobs, a complete range of other speeds for every need down to the most exacting power take-off work. See how Fuel-Miser carburetion gives peak power at full throttle, an economy mixture at all other loads. Ask your dealer or write for description of dozens of new features for lower upkeep costs and longer tractor life.

### IT STILL COSTS LESS To Get the Corn With a Case Picker

Save time and money with a two-row picker. Crib your crop with half the trips around the field, half the wear and tear on your tractor. Save more time with a Case because it's quick to hitch onto with any tractor, quick to grease, easy to handle and adjust. Save more power because it's hundreds of pounds lighter and dozens of parts simpler than comparable pickers. Save more money because it's built to run extra years and husk hundreds of extra acres on the original investment.

J. I. CASE COMPANY, Kansas City, Mo.

# CASE

## CERTIFICATION

*Supplies Pure Adapted Seed;  
Guards Future of Grain Crops*

By A. L. CLAPP  
Kansas State College

SEED certification is an organized program of maintaining supplies of pure seed of crop varieties adapted to certain areas of the state. This work is carried on in Kansas by an organization of farmer producers known as the Kansas Crop Improvement Association. The membership includes about 700 farmers.

Seed approved by the association is true to variety name, of good germination and free from noxious weeds and other harmful mixtures. The seed certification program also provides a means of increasing and distributing new adapted varieties produced by the Agricultural Experiment Station and other agencies. The Kansas Crop Improvement Association also promotes the distribution of seed produced in Kansas thruout the United States and enters into programs for the improvement of Kansas agriculture.

The association is designated by law to conduct the certification of farm crop seeds in this state. It is incorporated and includes in its board of directors some of the most prominent farmers of Kansas. Harlan Deaver, of Sabetha, is president.

The Kansas association is affiliated thru the International Crop Improvement Association with similar seed certifying agencies in 31 other states and all Canadian provinces. The value



A carload of certified Tenmarq wheat seed sold by a member of The Kansas Crop Improvement Association and shipped to Russia.

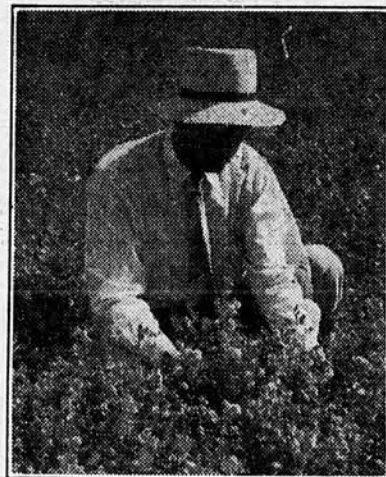
The Kansas Crop Improvement Association grew out of the Kansas Corn Growers' Association organized in 1902. Seed certification started in 1918 when pure seed of Kanred wheat was first distributed.

Seed certification was legalized when the 1937 legislature passed a law making it illegal to label seed as certified unless such seed was produced under the supervision of a certifying organization appointed by Kansas State College. This college has appointed the Kansas Crop Improvement Association the legal certifying agency for farm crop seeds in the state.

The constitution of the association provides that no variety shall be certified until it has been approved for distribution by Kansas State College. The rules of certification are adopted by the association only after they have been studied by all members of the Kansas State College staff who are interested in seed production and found satisfactory for the production of good, pure seed.

The principal rules of certification provide: (1) that certified or foundation seed must have been planted; (2) that the field to be certified must not have been planted to the same crop the previous year unless it was planted with certified seed of the same variety; (3) that the field must be properly isolated from other fields with which the crop is likely to cross-pollinate; (4) that the amount of disease, such as smut in wheat or sorghum, which might be transmitted to the following crop is very small; (5) that the field must not contain noxious weeds or a large amount of other weeds; (6) that the mixture of other varieties or hybrids must not be greater than a trace—usually not more than 3 or 4 plants to the acre.

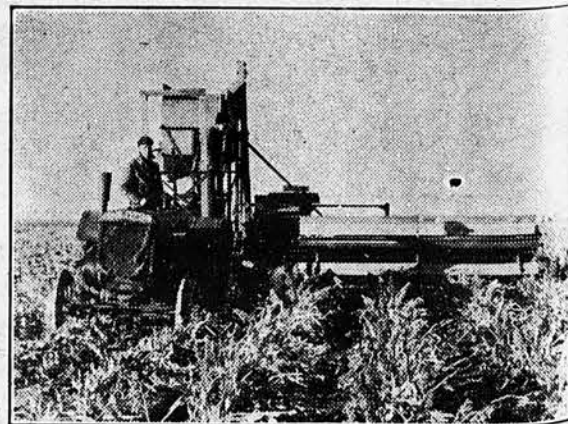
Field inspections are made by parties not interested in the crop and (Continued on Page 25)



A. L. Clapp, secretary of The Kansas Crop Improvement Association, inspecting a field of Kansas Common alfalfa for certification.

of this affiliation is the formation of certification standards which give confidence in the term "Certification" when seed bearing the certification tag is shipped across state borders. Representatives of the various state seed certifying agencies meet once each year to discuss ways and means of improving the standards used for certification. In December, 1938, the International Crop Improvement Association completed 20 years of effective work.

Combining a field of certified Colby milo sorghum seed. Colby milo is an early maturing, short stalked, combine type recently released for distribution.





## Kansas Created a New Agriculture

(Continued from Page 8)

the largest grower of hard winter wheat of any known like area. Kansas ranks first in the milling of wheat, averaging more than 13 million bushels a year.

The column of figures tells the story of the expansion of Kansas' wheat area. The annual crop covers more acres than 39 other states have in all kinds of crops together; uses more wheat for each year than is harvested in 28 other states; made a record planting more than 17 million acres in 1 year; a record crop of 240 million bushels another year.

Kansas excels in the production of important crops of the north temperate zone; ranks among the first 6 in the volume and value of agricultural products, and produces more value in cereal crops than do other states.

Altho usually thought of as a north crop, Kansas ranks third in the production of flax, of which a large acreage is grown in the southeast counties where it is processed for the production of linseed oil.

Kansas has an important sugar beet industry, for which the crop is grown in 10 southwestern counties as a prominent factor in the farming system. The counties in which sugar beets are grown commercially comprise the largest irrigation district in the state, with the Arkansas river and tributaries as the source of water supply.

### Adapted to Balanced Farming

With approximately 24 million acres of crops, Kansas soil is well-adapted to balanced agriculture, averaging 12 million acres in corn, sorghums, oats, wheat, and legumes, with a similar area in wheat. Northeast counties, with heavy soil, comprise a fruit region especially noted for the flavor and quality of its apples. Another important growing section is located in the river valley of the Arkansas river. Southeast Kansas is reputed to have a wider variety of natural resources than any other like area in the U. S. Kansas is first in acres of farm land owned by owners. The state has 174,000 farms averaging 275 acres each, with more than 21 million acres in farms that average 500 acres each, 11 counties where all farms average 500 acres. The farm population of the state is 90 per cent native born, mostly home owners.

In order to operate these big farms, farmers of the state have more tractors than do those of 38 other states, more tractors than 46 others, more automobiles than 45 others, more automobiles than 40 others, and generally more mechanical power for farming purposes than the farmers of 42 other states.

Kansas annual mineral production is larger in value than all of the gold produced each year in the United States, including Alaska. The state is first in oil, natural gas, coal, lime, cement, building stone, lead, zinc, and iron ore, and is first in the production of bricks, tile, pottery, and glass. With extensive beds of rock salt, 300 feet thick, extending beneath several counties.

Kansas is first in native-born citi-

zens, first in number of students per 1,000 people, ranks higher in literacy than does Massachusetts, and annually expends more than \$40,000,000 for educational purposes.

Kansas is right in the middle of things, with the exact geographical center of the United States located in Smith county and the geodetic center of the North American continent in Osborne county.

Kansas is the only state having 4 government highways, extending from ocean to ocean, thru its entire length of 400 miles from east to west. The state has more than 9,000 miles of all-weather highways, as well as having the natural route of travel from coast to coast. The state also has 12,000 miles of railways. It is an easy state to visit and wholesome in which to live.

But the most notable factor in Kan-

sas' historical records is its people. Pioneered by a sturdy folk from the stern and rock-bound coast of New England, whose history was adversity, but whose heritage was courage, these mighty men of the East came to Kansas to prevent the black smudge of slavery from smothering civilization within its boundaries, and their victory is indelible in the annals of time.

Later came a great migration of veterans of the Civil War, seeking new opportunity in the free homesteads of Kansas, there to return to civil life and build new homes in a land they had made forever free. It was these men and their kind who transformed the Great American desert of early days into the garden spot of America, built an empire of modern culture, created a state worthy of their traditions and made of Kansas the central star in the galaxy of states. It was from these men and their kind that the present population of Kansas is descended, and it was from their transmitted faith

## Handy Book a Dandy

Handiest pocket-size farm and livestock record book you ever saw is yours for the asking. It contains space for expense records, crop records, breeding records, and milk and egg records, besides 500 useful facts such as measuring tables, silo capacity, dressing weights of livestock. The 1940 books are just off the press. Both the Missus and Mister should have a copy—they are free. Send a post card to Farm Service Editor, Kansas Farmer, Topeka.

and courage that the glory of the state shines forth in her laws and institutions, as lasting monuments to an abiding faith and invincible courage.

You don't have to dig out the mud on THIS tread

# IT CLEANS ITSELF



**LIKE THIS**—Steel wheel makers for years have used designs with separate lugs that stay clean.



**DIRTY!**—"Mud traps" on a tractor tire pack up just like a horse's hoof does.

**YOU** know from your own experience how the "pocket" formed by a horse's hoof can pack up solid with earth, causes slippage, and has to be dug out.

Well, "pockets" or corners, or "mud traps" on the tread of a tractor tire can fill up the same way. And, if you don't dig out the dirt the tractor wheels will slip and spin—wasting time, fuel and labor!

That's why the Goodyear Sure-Grip tractor tire is designed with an *open-center* bar tread.

*It cleans itself*, because there are no cross-bars, no "bridges" from one lug to the other to form corners.

There are other advantages, too, made possible by this sensible

tread design. Because the bars are *evenly spaced*, you get smoother rolling—no jerks. And these bars are far enough apart to let each separate lug dig in and get a good "bite" at the soil.

Then, notice how each lug is *buttressed* at the base—wider at the bottom than at the top. That means no lug tear. Each lug is strong enough to carry its load!

Ask any farmer who's had any experience with this great Sure-Grip tire and he'll tell you how it *works out in the field*. And that's what counts.

If you want a self-cleaning tractor tire that will pull harder, pull smoother, and last longer—then Goodyear Sure-Grip is the tractor tire for you!



### READ WHAT THIS FARMER SAYS:

"I am glad, now, that when I put rubber tires on my tractor last fall I equipped it with Goodyear Sure-Grip tires. I still have the first time for them to fail to take me through.

"When I bought these tires last fall they did all that the salesman claimed they would do in fall plowing, but I was rather skeptical as to their actions in the spring on a wet cover crop. After using these tires for a year I know that they do the job.

"I've plowed with them early in the morning on alfalfa sod covered with manure and they performed more than satisfactory. I also save in fuel consumption because I can cover more ground in the same length of time and in many cases I even pull an extra implement in back of my tractor.

"So again I say, I am glad that I decided to put Goodyear Sure-Grips on my tractor."

Mark King, Tiffin, Ohio

THE GREATEST NAME IN RUBBER  
**GOODYEAR**  
**SURE-GRIP** the Self-Cleaning Tractor Tire

HAVE YOUR NEW TRACTOR COME FACTORY-EQUIPPED WITH SURE-GRIPS



"Junior's having a birthday party!"



**Avoids**

On this page we tell the dramatic story of a field of Pioneer hybrid corn located in Kansas. This particular field of Pioneer hybrid corn is on the farm of F. H. Leonhard, near Lawrence—and it is to be the site of the National Corn Husking Contest to be

held on Friday, November 3. In judging the present-day appearance of this field, it will be well to remember that the corn has been ripe for two months and would have been picked, under normal conditions, the early part of September.

*These stories from Kansas newspapers tell what the hard drouth did to Kansas*

## UPLAND CORN IS BURNING BADLY

**UPLAND CORN  
BURNING BADLY**

Upland corn in Central and  
Western Kansas is burning badly  
and probably will produce little  
and state of agriculture report  
rain is needed in the  
southeastern part of the state.

**NEED MORE RAIN**

## Shower Which Fell Yesterday Not Sufficient to Save Corn Crop

The .40-inch rain which fell ye

## CORN NEEDS RAIN

## Prospects for Good Crop in Kaw Valley Are Growing Slimmer

Prospects for a good corn crop in the Kaw Valley district continued to deteriorate today as the crop remained badly in need of rain. Some of the corn in the valley is now in the hands of the birds.

# HEAT HURTS THE CORN

**HURTS THE CORN**  
Emporia, Kan., July 12.—(Special) Today's 102-degree temperature and bright sunshine did further damage to the corn crop. It took a week ago when the best crop was expected.

**Kansas Corn Endanger  
By Lack of Good**

Topeka, July 12. (AP)—Good crops will be needed soon or the corn crop will "deteriorate," the federal and state departments of agriculture said today. "Corn, altho showing some stress from high temperatures, will in fair to good conditions need of moisture," the weekly summary said. Harvesting of wheat, favored by hot, dry weather, is nearly completed in southern and eastern states, reports indicated. Millers are preparing seed beds for seeding, but this work should be halted unless general rains are received. Rain sorghums in the eastern part of the state are making good growth but in the western stands are retarded by high temperatures. High temperatures are also delaying wheat in conditions.

# Kansas Corn Crop Is Cut Short

# Cut Short

Kansas will not have more than 25 per cent of a corn crop this year, according to Charles V. Lane, special agricultural representative of the Santa Fe System. The report issued yesterday, however, says the past year's rains have helped them

representative  
in a report issued  
What rains during the past  
in the state during that they  
were so scattered that they  
to overcome much of the ill  
of the hot winds and drouth  
damage is widespread, ex  
pastures and practical  
tion of all kinds.  
need prospects are  
an average.  
Tho the p  
they are still  
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The picture (shown above) was taken on July 26 on the day following a heavy wind and rain storm. The light strips are open-pollinated corn, planted through the Pioneer field as a check to get comparative yields.

**AT LEFT** At left is picture of open-pollinated corn, showing damage as a result of wind and rain.

**AT RIGHT:** This picture was taken from exactly the same location, with the camera pointed east, between two rows of Pioneer hybrid corn. Note how straight and sturdy it is standing.





# Hybrid Corn

## ROUTH to Produce Thousands of Kansas Farmers

The Relatively Early Planting of Pioneer Early Hybrids  
Produced Profits for Thousands of Kansas Farmers

In practically all of Kansas, good strong seed corn can be planted in the first half of April with good assurance of obtaining good stands.

Pioneer hybrid varieties which are recommended for planting in Kansas, when planted during the first half of April, will be in shelling ears by the 4th of July, and will be hard-dented corn shortly thereafter.

Kansas normally gets ample rainfall in April, May and June.

Extreme heat and drouth normally arrive in Kansas about the middle of July.

These normal conditions obtained in Kansas in 1939. Condition of corn was very excellent in Kansas on July 4th. Then for three weeks' period there was rain and excessive heat. The Pioneer hybrids planted relatively early were matured to such a degree that, in most cases, they escaped severe damage, whereas open-pollinated corn was practically all either destroyed utterly or very severely damaged. What we wish to point out is that this situation is a perfectly normal condition.

A conservative farmer is the farmer who plants his crops, figuring on normal weather.

Thousands of Kansas farmers were conservative last spring. They refused to gamble with

### VISIT OUR PIONEER EXHIBIT

While attending the National Corn Husking Contest at Lawrence, Kansas, on Friday, November 3 — be sure and make it a point to visit the Pioneer exhibit, which will be located there on the grounds. Stop in — learn at first hand why Pioneer is the proved and PROFITABLE hybrid to plant in Kansas and the Southwestern Corn Belt.

their open-pollinated corn. They planted Pioneer hybrid corn — planted it relatively early — and matured a decent corn crop before the hot, dry weather set in.

Be conservative next spring. Plant your full corn acreage with Pioneer hybrid seed corn, and avoid the drouth and the heat.

### It Is Advisable to Order Your PIONEER NOW!

Because of the very grand results which Pioneer hybrid seed gave in the Southwestern Corn Belt in 1939, there will be a very greatly increased demand for seed to plant in the spring of 1940.

This is true, not only in Kansas — it is true in Nebraska — it is true in Missouri — it is true in Iowa.

Never before has the superiority of Pioneer been so generally recognized as it is this fall.

Sales of Pioneer to date far exceed sales on a similar date in any year in our history.

PRUDENT FARMERS WILL PLACE THEIR ORDERS FOR PIONEER NOW WHILE A FULL CHOICE OF KERNEL SIZES AND VARIETIES IS STILL AVAILABLE. THERE IS NO ADVANTAGE IN DELAY — AND THERE ARE DISTINCT RISKS IN DELAY.

## ORDER YOUR PIONEER HYBRID SEED CORN NOW!



## National Comes to Kansas

(Continued from Page 5)

greatest machinery shows in the Midwest this year. Of course, it will be right on deck for everybody to see until after the husking meet is over. Band concerts and other special features have been arranged for the pleasure of visitors.

The third day, November 3, is the

actual husking contest. A big parade on the contest farm starts things rolling. At exactly 11:45 an aerial bomb will be exploded to start the huskers on their 80 minute battle of endurance; a test of strength unmatched by any other athletic event. For 1 hour and 20 minutes the huskers will amaze on-lookers with their ripping speed and their ability to keep more than one ear of corn in the air much of the time. Special features on the big outdoor

platform will include broadcasts by WIBW talent.

Newsreel camera men will be on the job so thousands of movie fans thruout the entire country later on will get a glimpse of this big Kansas show as it flashes on the silver screen. The National Broadcasting Company is sending 8 men to the contest from Chicago, to broadcast a description of the colorful event over nearly 100 NBC-Blue Network stations. WREN,

of Lawrence, and WIBW, of Topeka both will be on the spot to tell the complete story. Folks at the contest enjoy seeing these expert movie radio men in action.

This big event is sponsored by National Corn Husking Contest Association, which is composed of the leading farm papers serving these states: Kansas, Nebraska, Missouri, Illinois, Indiana, Iowa, Minnesota, South Dakota, Wisconsin, Ohio and Pennsylvania. The host paper which brings the contest to Kansas this year is KANSAS FARMER MAIL and BREEZE of Topeka. In turn the contest rotates among all the states mentioned.

All local arrangements for the day event are being made by the Lawrence and Douglas county folks who set up 21 efficient committees under the direction of Emil Heck, prominent Kaw Valley farmer, who is general chairman of the Lawrence committee. Nothing too good can be said about the efficiency and the excellent operation in evidence as this Lawrence committee, having planned for many months, now rush to completion plans for the biggest husking contest ever held.

So Kansas Farmer Mail and Breeze invites you to attend the big, free National Corn Husking Contest on November 1-2-3, three days replete with new ideas, fresh inspirations, and color and excitement of a fun-loving crowd.

—KF—

## May Be Many Diseases

By C. H. LERRIGO, M. D.

It has been my painful duty, recently, to wound the feelings of Uncle Jud. He appealed, in all sincerity, for "a medicine for kidney trouble." Since I insisted that "kidney trouble" meant no definite disease, and no medicine prescribed on such a diagnosis would be of value, he went away angry. For the benefit of Uncle Jud and others like-minded, let me explain.

The kidneys, 2 in number, are excreting glands. They contain a mass of little tubes and all the blood of the body flows thru these tubes. The function of the kidneys is to select the waste and cast it out of the body. In doing this they use watery elements of the blood as a fluid carrier. There is a short canal from each kidney emptying into the bladder and called the ureter.

Kidney excretion goes on every moment, so a reservoir such as the bladder is a necessity. The urinary bladder is served by a canal to carry away its contents, and this is called the urethra. The emptying of the bladder is a matter of conscious control, but the excretion from the kidney is not.

The average person with any kidney disturbance first notices symptoms in some abnormality of the urine. It may be highly colored, pale, heavy with deposits, scanty, frequently burning, bloody. No matter what the trouble, the instinct of the patient is to put the blame on the kidneys. Most of these symptoms may come when the kidneys are normal. They may be due wholly to some infection or injury of the prostate, urethra or bladder. On the other hand, they may be due to disease of the kidneys. It requires a medical education to make the diagnosis, and that is why many mistakes are made.

Kidney trouble may be a brief inflammation such as can come from a cold, exposure, or over-exertion. It may be a chronic disease causing breaking down of the functions of the kidneys such as the well-known practically incurable Bright's disease. It may be the formation of gravel or stone with the unspeakable pain that comes as the sharp granules try to pass down the sensitive ureter. It may be tuberculosis or it may be cancer. These things help you to see how important may be an annual examination of urine. Remember that the X-ray also gives information.



## The best dressed men at the NATIONAL CORN HUSKING CONTEST won't be wearing full dress suits



## Come dressed for the occasion in Lee OVERALLS!

(Made of Genuine Jelt Denim)

America's finest looking, best-fitting  
and longest wearing Overalls.

You'll enjoy the feeling of confidence and well-being Lee Overalls give you. You'll be one of thousands of prosperous-looking men dressed in these smart, comfortable, "tailored-sized" garments.

Remember, your Lee Overalls are guaranteed to be better in every way—or a new pair free!

**FREE Souvenir on the Grounds.** Be sure to get yours, where you see the world's largest overall displayed.

## THE H. D. LEE MERC. COMPANY

Salina, Kan. Kansas City, Mo.  
So. Bend, Ind. Trenton, N. J.  
San Francisco, Calif.

*See the World's Largest Overall  
Displayed on and near the Grounds*



Head men of the Lawrence committee co-operating with Kansas Farmer in staging the National Corn Husking Contest to be held near Lawrence, November 3. They are wearing the "Bangboard Specials". Left, Charles Radcliffe, president of the Lawrence Chamber of Commerce; right, Emil Heck, prominent Kaw Valley farmer who is chairman of the Lawrence executive contest committee.



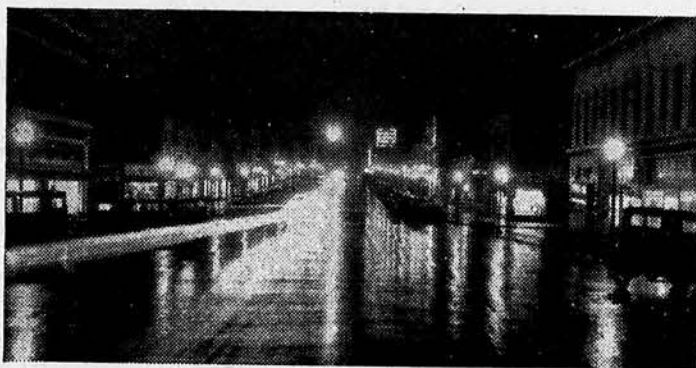
*Rich in Historical Background;  
Heart of the Fertile Kaw Valley*

# LAWRENCE WELCOMES YOU

By **DOLPH SIMONS**  
Lawrence Daily Journal-World

LAWRENCE, located in the center of the rich Kaw Valley of Eastern Kansas, and experienced as a host city in entertaining hundreds of large conventions, was a logical choice for the 1939 National Corn Husking Contest and for entertaining the 10,000 visitors expected for the event. Mother Nature smiled on the Kaw Valley again this year and produced a bushel cornfield only 3 miles from Lawrence—the field which will serve as proving ground for champion huskers from 11 Corn Belt states.

The 22 contestants, 2 from each state, can't complain about "picking nuts." The big yellow ears are thick and are hanging at an even height. When the huskers hear the finish bomb at the end of a fast and furious 80 minutes, they are certain to agree that the 40-acre patch is one of the best cornfields they have ever worked. Visitors are likely to learn that the record 41.52 bushels husked by Elmer Carlson, of Iowa, back in 1935 in Fountain county, Indiana, has been broken.



A glimpse of Massachusetts street, in Lawrence, at night. Visitors to the National Corn Husking Contest will find a hearty welcome awaiting them here in one of the most progressive and strikingly beautiful cities in the Midwest.

The 1939 contest field is on a large farm owned by the University of Kansas, given to the school by Charles Robinson, the first governor of Kansas. Thirty years ago the farm was leased by F. H. Leonhard, well-known and successful Kaw Valley farmer who, in recent years, has shared operation with his son, Lawrence Leonhard.

It was Charles Robinson, the state's first chief executive, who first spotted the valley to the north of Mount Oread as a townsit. Back in 1849, when he was a member of a train of California-bound gold seekers following the trail on the Kaw River bluffs, the party stopped to view the beautiful valley.

Looking out from the hilltop, where the wagon team stopped to rest, Robinson told his friends, "Some day I am coming back to this country. Do you see that big oak tree down there on the slope? Well, that's where I am going to stake out a claim and build a home for my family."

The dream came true. In 1854, after the pioneer had returned to the Atlantic coast, he came west in the company of Charles Branscomb, serving as an agent of "The New England Emigrant Aid Society," and selected the site of Lawrence. The Kansas-Nebraska Bill opening the territory for settlement had been passed by Congress only a few weeks earlier, on May 14, 1854, and on August 1 the first band of 29 settlers reached Lawrence to establish the city.

"The Emigrant Aid Society," a stock company, had been organized to promote emigration to Kansas of people opposed to slavery and these first settlers came west with a definite purpose. Three additional groups from Boston had arrived by October 30, but in the meantime the town had been named after Amos Lawrence, of Boston. On January 1, the little band of citizens gathered on the hilltop to drive stakes for the founding of a college and then celebrated with a banquet.

Little did they realize the bloodshed and the heartbreaks that were to come before their community would settle down to normal growth under the shadows of a great State University on the top of majestic Mount Oread.

From the start Lawrence was labeled as the anti-slavery headquarters of Kansas. A brief resume of important dates in the first 2 years of the little community, lists a few of the experiences which led up to the sickening massacre on August 21, 1863 when Quantrell's murderous band rode into the town of 2,000 inhabitants, killed nearly 200 unarmed men and left the town site in smoldering ruins.

1855: May 20—Steamer "Emma Harmon" arrives at levee at sundown with passengers and cargo bound for Fort Riley.

December 2—Trouble brews between Free-State and Pro-Slavery [Continued on Page 43]



Crowning glory of famous Mount Oread at Lawrence is the University of Kansas. At left, the administration building which mirrors its modern outlines in Potter's Lake.



# WILL HE EVER WIN a blue ribbon?



**F**OUR thousand dogs sleep and snarl, sit up and blink, strut and pose for the judges at the annual show in Madison Square Garden. Bluebloods seeking blue ribbons. Rash indeed is the man who would try to predict which dog will finally be selected as the grand winner, the "best in show."

But you don't have to be an expert yourself... you need no technical training... to choose a winning oil for your motor. It's easy to tell. This is why:

Of the many oils refined by Phillips, we have set apart one as *our best*. Without reservations of any kind, we frankly publish the fact that Phillips 66 Motor Oil is *our finest quality*... the highest grade and greatest value... among all the oils we offer.

Now you know how to get a blue ribbon oil. Just drain and refill with Phillips 66 Motor Oil at the *Orange and Black 66 Shield*.

## Phillips Finest Quality

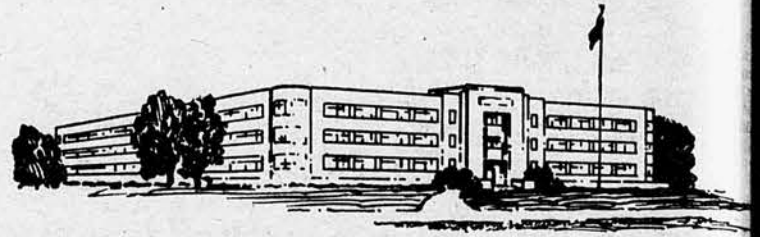
### When You Move, Send Us Your Change of Address

If you change your address, be sure to send the Kansas Farmer both your old address and your new address, so that you will not miss any copies of the paper.

**Notify Us at Least Two Weeks Before You Move**

## HUNT NEW USES FOR CORN

*Despite Progress Already Made  
the Search Has Only Started*



Northern Regional Research Laboratory, located at Peoria, Ill., which will serve Kansas, Nebraska, South Dakota, North Dakota, Minnesota, Iowa, Missouri, Illinois, Wisconsin, Michigan, Indiana and Ohio.

By DE WITT C. WING

**A**RTIFICIAL snow pictured in the movies is made from corn. Many other products of corn have been commercially introduced by the processing industries. Approximately 9 per cent of the country's total corn crop is processed and used industrially. About one-fourth of this 9 per cent is returned in the form of by-product feeds to farmers, and one-half enters the food market. Of the total crop that goes into non-food uses, the percentage is very small. Many edible corn products, however, enter non-competitive food markets, and this is a distinct advantage to farmers. About 3 per cent, or 80 million bushels, of the total annual crop, is processed for the manufacture of starch, oil, and other products. A large part of the starch is used industrially and not in foods.

About 90 per cent of the crop is utilized for animal feeding where it is grown. In each of the last 2 years that portion of the crop which was sold brought farmers a cash income of about 250 million dollars. On the average, the disposal of the corn crop is as follows: Feeding hogs, 39.7 per cent; feeding cattle and sheep, 24.5 per cent; feeding horses and mules, 13.7 per cent; other farm uses, 12.8 per cent; and industrial and city uses, 9.3 per cent.

#### Exports Have Been Small

Corn production in the United States usually has ranged from 2.5 to 3 billion bushels. Since 1900, world production of corn has remained practically constant at 4 billion bushels, of which, prior to the World War, the United States produced about 68 per cent, and about 60 per cent in recent years.

Exports of corn from this country have been large in very few years. Record exports of corn occurred in the year beginning October 1, 1921, when the total was 168 million bushels, or 5.7 per cent of domestic production. In the following year, 64 million bushels were exported; after which, corn exports declined to an average of 6 million bushels during the 5-year period 1929-33. Argentina's very small corn crop in 1937 made it possible for the United States to export 138 million bushels during the year beginning October 1, 1937.

Motor power, to the extent it has replaced power animals, has increased the demand for corn by about 10 per cent of the total domestic crop.

Starch makes up about 60 per cent of typical corn kernels. Industrial products made from corn are largely starch and starch derivatives. Starch is a mechanical separation of the dry corn kernel into the germ, the bran, and the germ. (The germ means the starchy part of the kernel.) This starchy part is further milled to yield hominy and grits, meals of various types, corn flours, processed flours, flaked products, prepared cereal foods. Most of the starch from dry-milling is derived from the sale of these and related food products.

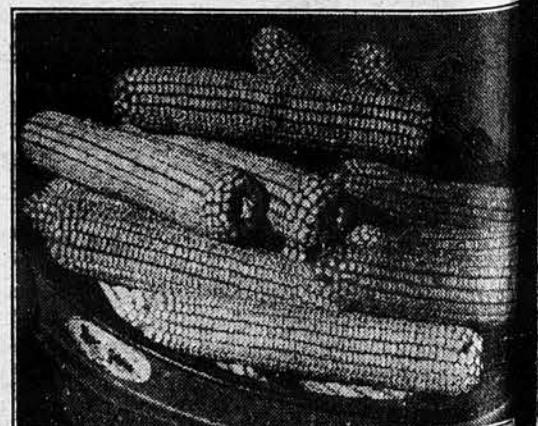
#### Many Non-food Products

In dry-milling, the germ is pressed for corn oil; the resulting germ meal, ground to a coarse meal, and, with waste from milling, is sold as stock feed. Most products of dry-milling are used as foods, but many other food uses have been developed, such as artificial snow for movies, color fast paints, cold-water pastes, food flours, and fillers for sizing paper.

In wet-milling, corn is steeped in water, then separated into starch, germ and bran. As in dry-milling, the germ is pressed for corn oil, and the press cake, together with all other products, is returned to the feed market. Starch, which is the primary product, is further processed to yield refined starches, dextrans, gums, and crude and purified dextrins, corn sugar. These commodities are utilized in various food products, such as corn-starch puddings, caramel, ice cream powders, jams, baked goods, and confectionery, and the brewing industry. They also find outlets in such non-food products as laundry starch, paper and textile explosives, adhesives and colors. In addition to which, they are employed in the tanning of leather, in rayon manufacture, and in the production of sorbitol, sorbitol, and fermentation products. Starch is separated from the corn by washing and sedimentation. Wash-waters are concentrated to cover the gluten, which is utilized as a high-protein component of feed.

To date, wet-milling methods

Corn is turned into "movie" snow, explosives, adhesives and numerous other things, but 90 per cent of the crop is fed right on the farms where it is grown.





developed more industrially useful materials than dry-milling methods. Wet-process grindings of corn to produce starch and allied products have run from a low of 55 million bushels in the 1934-35 season to a high of 88 million bushels in the 1927-28 season. Sales of these products in 1937, typical of the output of industrial derivatives by the wet-process industries, are shown in the following table:

	Pounds
starch	731,000,000
sugar	418,000,000
syrup	1,035,000,000
glucins	83,000,000
corn oil	20,000,000
refined corn oil	113,000,000
corn feed and meal	1,084,000,000
corn-oil meal	58,000,000

Any significant expansion of the industrial use of corn depends basically on the development of new or more extended uses for starch or products derived from it. Such expansion may take place under one or more of 4 types of processing industries, namely: Dry-milling, wet-milling, fermentation for industrial chemical products, and fermentation for the production of fuel. Wet-milling methods offer the most promise for future expansion. To produce chemicals from corn by special types of fermentation appears less promising than fermentation for fuel, chiefly because of the magnitude of the potential market for alcohol as a fuel. Its use becomes economically feasible.

#### Must Consider Competition

In research on corn products, the competitive relation of corn to other agricultural raw materials must be considered, as well as the competition of these agricultural products with those obtained by the methods of synthetic chemical manufacture that use raw materials which do not come from agriculture. Corn's competitive position illustrates the complexity of the economic-technologic problems to be solved in determining any research program. While the starches isolated from different plants—corn starch, potato starch, wheat starch, rice starch, and like—differ in physical properties, they are fundamentally of the same chemical constitution.

With a few exceptions it is possible to modify each starch to such an extent that it acquires the physical properties required for a particular use. Price alone determines the market outlets for the different starches, except for a limited number of special uses. One exception is the adhesive on postage stamps; clove and sweet potatoes have advantages over all other products as sources of this adhesive. For use in certain rubber products, corn starch has the advantage. Potato starch is used in Germany in the same products for which corn starch is used in this country, entirely because of price relations.

#### Market Could Be Increased

Research is needed to determine whether, by reducing costs of production or by improving quality, a larger part of domestic requirements for starch and allied products might be supplied by products made from domestic corn. No adequate method of evaluating the possible increase in markets for starch and its derivatives is available. It is frequently stated by technical men in the industry that the present markets for wet-milled products of corn could be doubled in 5 years. Such an increase would be primarily an expansion of present markets, and would not depend on the replacement of other domestic agricultural crops, or discovery of new uses.

#### Improve Yield and Quality

Research by processing companies is devoted primarily to improving yield and quality, and to diversification of products derived from corn, the objective being to reduce costs and increase sales outlets.

Section 202 of the Agricultural Adjustment Act, approved February

16, 1938, Congress authorized and directed the Secretary of Agriculture "to establish, equip and maintain 4 regional research laboratories, one in each major farm producing area, and at such laboratories to conduct researches into and develop new scientific, chemical, and technical uses and new and extended markets and outlets for farm commodities and products

and by-products thereof. Such research and development shall be devoted primarily to those farm commodities in which there are regular or seasonal surpluses, and their products and by-products."

One of the 4 laboratories—the Northern Regional Research Laboratory—is to be located at Peoria, Ill. It will serve Kansas, Nebraska, South Dakota,

North Dakota, Minnesota, Iowa, Missouri, Illinois, Wisconsin, Michigan, Indiana and Ohio. It will be the primary purpose of this laboratory to find and develop new uses for surplus farm commodities of the region. Corn, wheat and agricultural wastes are to receive first attention. About 250 people will be employed for carrying on chemical, engineering and related research.

## 5 REASONS WHY



## Are BEST for Kansas Farms!

For 52 years we have supplied field seeds to the farmers of Kansas. It has been our constant aim to keep abreast of the times, and to anticipate agricultural trends. So you, our farmer friends, may have the best hybrid seed corn, we have become associated with Funk Brothers, of Bloomington, Ill., the pioneer producer of hybrids. We have been personally acquainted with this company for many years, and are pleased to add our experience and assistance in the development, testing, growing, production, and sale of Funk's Hybrids in our territory.

### 1. Superior Background!

Funk Bros. Seed Co. is the oldest hybrid seed producer in the business. Before other seed producers had dreamed of such a thing as hybrid corn, our trusted friend, Mr. E. D. Funk, had begun his experimental work.

Funk's "G" Hybrids are the best the industry has produced, and are the results of over 25 years of painstaking and expensive trial, of testing, of throwing away the less desirable and saving only those high yielding, high quality hybrids that successfully stand adversity, wind, storm, drought, cold, and insect pests. The inbred strains and combinations developed by the Funk Bros. are retained in Funk's "G" Hybrids.

Well directed breeding, testing, and experimental departments are maintained, and special care is taken in detasseling and processing. Funk's "G" Hybrids are strong and vigorous, and are guaranteed to have 95 per cent germination.

### 2. Adapted to Kansas!

It is estimated that about 8 per cent of the corn in Kansas this year was hybrids, and the percentage is expected to jump to 40 or 50 per cent hybrids for spring planting in 1940. Test plots harvested this season in all parts of Kansas furnish conclusive proof that Funk's "G" Hybrids are well adapted to Kansas. We have had enthusiastic letters and reports from farmers throughout the state. The following are examples:

#### From NORTHERN KANSAS:

"Funk's Hybrids withstood wind and drought and produced 2 to 3 times as much corn as open pollinated."

#### From CENTRAL KANSAS:

"Funk's Hybrids are far superior to open pollinated not only because of their yield but for their ability to stand and produce quality large ears."

#### From SOUTHERN KANSAS:

Planted May 18, tested under unusual drought conditions, and harvested September 1, Funk's Hybrids yielded 48 bushels per acre which was 9 bushels over the nearest competitive hybrid and 14½ bushels over the best open pollinated corn.

A sturdier root system, general uniformity, and timely maturity make Funk's Hybrids well adapted to all Kansas farms.

### 3. Increased Yields!

Funk's "G" Hybrids are constant leaders in corn yield both in official performance tests and on numerous farms, and probably have been awarded more gold medals and honors than any other hybrids. They produce from 15 to 20 per cent up to 50 per cent more bushels per acre than the open pollinated corn.

Funk's "G" Hybrids are also bred for crib yield and when you shell this corn you will be surprised at the larger percentage of shelled corn. High corn yields under an unusually wide range of conditions account for the unusual popularity of these famous hybrids. They are champions of field and feedlot.

### 4. Higher Feeding Value!

Funk's "G" Hybrids trace their feeding and yielding qualities back to the utility type varieties from which their inbred parents were developed. That's why these "G" Hybrids are neither starchy nor hard and flinty, but palatable and high in feeding value. They are very digestible, and do not have to be ground. Combining feeding quality with high yields, these Hybrids are specially profitable for livestock feeders.

### 5. More Resistance Qualities!

"Bred to beat the elements" and "weather-proof" are slogans of Funk Bros., and Funk's "G" Hybrids live up to these claims. Thousands of tests prove these Funk Hybrids possess the necessary vitality successfully to resist wind, cold, insect pests, and disease. Outstanding performance alone accounts for the enviable reputation of Funk's "G" Hybrids among farmers and agricultural authorities.

We believe Kansas farmers want the best hybrids and the kind of service that Funk Bros. and the Peppard Seed Company can offer. FUNK'S "G" HYBRIDS ARE NOW BEING GROWN RIGHT HERE AT HOME under the supervision of our own men. Funk Bros.' breeding program insures constant progress, and the most modern machinery is provided for the processing and grading of the seed.

Place your advance order for your 1940 supply of Funk's "G" Hybrids at once. See for yourself why we claim this seed is best for Kansas Farms. See our friendly local dealer.

Visit Our Booth at the National Corn Husking Contest,  
Lawrence, Kansas, November 3

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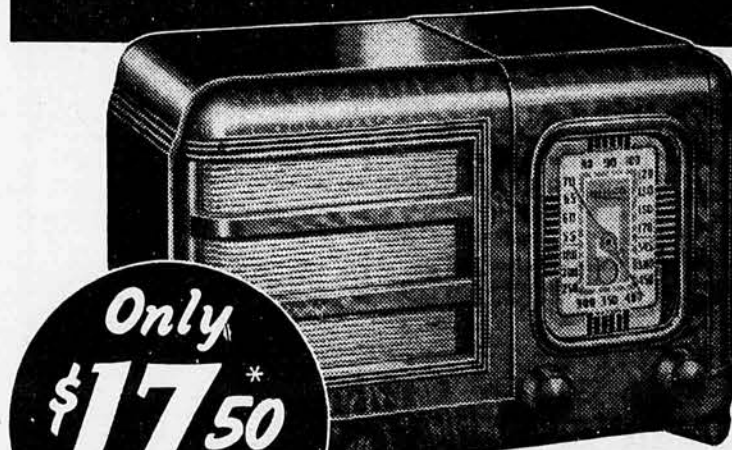
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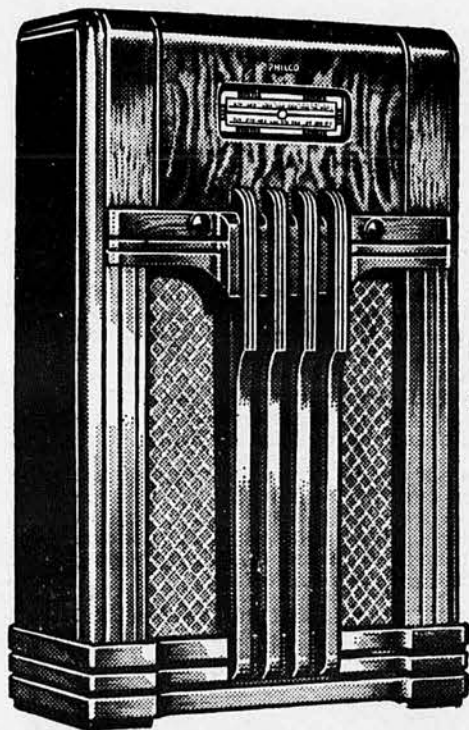
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## Tractor Tire Idea Born in World War

By ROY R. MOORE

WHO was responsible for the development of the rubber tire for tractors? Perhaps it isn't so important to thousands upon thousands of farmers who now possess tractors with rubber tire equipment and take the efficiency of these tires for granted. But from an historic angle, it is important to the men who first began dabbling in the business.

Take, for instance, George Murphy, a dealer for the Oliver Farm Equipment Company at Mundelein, Illinois, a World War veteran, who began experimenting on rubber on tractors in France in 1918. Following the World War, as an engineer for one of the implement companies, he began working with a big tire company to develop a tire that had all the desirable qualities for tractors. But let Mr. Murphy tell his own story:

"It has been generally recognized since the first practical farm tractor, invented by Hart and Parr, was put into use in 1903 that the utility of the tractor was controlled by its traction ability.

"My first contact with this traction problem was at Gievers, France, in 1918 at the Service of Supply Depot. At this depot the A. E. F. was compelled to use the French narrow-gauge railroads. We had plenty of freight cars but were very short of engines for switching, all of the available engines being in use on the main lines. Consequently, it was imperative to find means of switching at this very large depot—about 10 miles square. Horses and mules were used and finally the writer, having been reared on a farm, thought of the farm tractor.

### Found the Right Combination

"We had some of the early Fordsons there, mounted on regular steel wheels with the cross type grouters. These steel wheels were not practical because of the destruction of railroad ties, roadbeds, and switches. In those hectic days and nights something had to work. We tried 40x5 solid rubber tired wheels which were on hand for truck replacements. These wheels and tires worked a lot better. Then we used duals, then three, until we got the right combination. The result—our switching problem was solved.

"After the war, I was connected with the Fordson organization. Our problem still was traction. Solid rubber wasn't feasible on the farm—too much packing, too high cost. We tried using our old, worn pneumatic casings stretched over steel wheels—much better results, low cost, used in Florida rather extensively. They were not so good in mud as they slipped on the rims when chains were used. Then high pressure pneumatics—too high cost, too much packing, cut into the soft



George Murphy

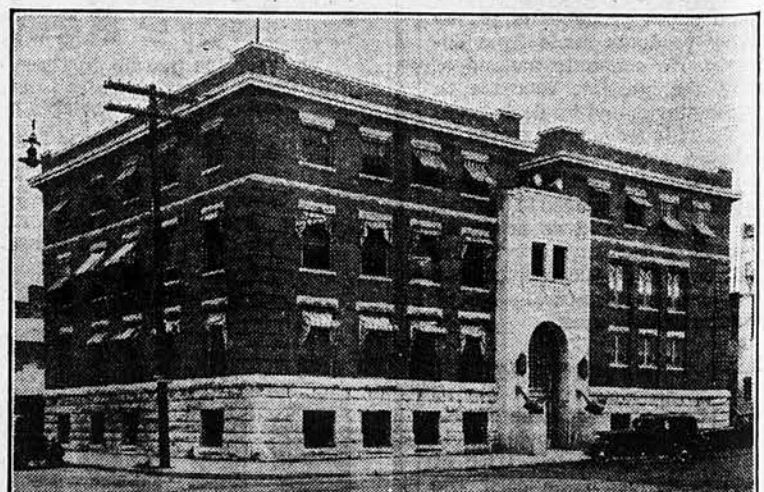
ground when the necessary weight for traction was added. It had to have a wider traction surface, less air pressure so that the traction area would be larger and consequently would not pack.

"While riding a large commercial airplane in early 1932, I happened to sit where I could see the tire action when the plane was landing and taking off. I noted the large flexing of the tires when the plane landed and while taxiing over uneven ground. I inquired of the pilot how much air pressure was in the tires, and was informed that they carried 20 to 25 pounds. I knew this large sized tire would take a lot less pressure for a tractor—a much lighter weight. I asked for a set of these aviation tires from the manufacturer—Firestone—for experimental purposes. They informed me that there was no chance of this tire standing up when used for traction purposes. The tires had no traction tread, would slip on rims. After considerable insisting, I finally got a set—had to engineer an adapter ring in order to fit this drop center rim to the wheel equipment available. Draw bar tests indicated twice the pounds pull with about  $\frac{1}{2}$  of the tractor weight, altho these tires had no traction tread.

### Water Added Pounds of Pull

"Incidentally, we did encounter a lot of ground chatter or jumping of the tires off the ground when maximum draw bar pull was being approached. Tires were filled with water to dampen or kill this chatter—found also that this water added tremendously to pounds pull. So, the present agricultural tire was born about January to March of 1932."

So that's one version of the birth of the rubber tractor tire. I wouldn't be surprised if other engineers would lay claim to the inception of the idea. In any event, Mr. Murphy has added his contribution to the records.



The Lawrence Chamber of Commerce, Lawrence, Kan., which will be headquarters for all activities in connection with the 1939 National Corn Husking Contest to be held November 3.



## Meet Our Farm Hosts

# The Leonhard Families

By DONALD J. EVANS



The Leonhard families extend an invitation to the people of the nation to attend the National Corn Husking Contest November 3, on their farm and in the contest field which they grew. Left to right, Mr. and Mrs. Lawrence Leonhard and Mr. and Mrs. F. H. Leonhard.

**TENANCY** of 39 years on the same farm, near Lawrence, Kan., and satisfied with his lot, sums up the farming history and philosophy of Frank Leonhard, grower of the field of corn where, on November 3, will be held the National Corn Husking Contest to which the public is invited.

Frank Leonhard thinks he has the best landlord and the best farm in Kansas. To this 411-acre farm he brought his bride in 1903. There he reared 4 children, and Lawrence, eldest son, remains as a partner with his father.

Active and still doing the work of a full-time hand at the age of 73 years, Mr. Leonhard has watched the rise and fall of farm fortunes during his stay here, the entire span of his farming career.

The farm, owned by the University of Kansas, has been tended by the Leonhard family even longer than 39 years. In 1893, Mr. Leonhard's father moved to the place, owned at that time by the late Charles Robinson, first governor of Kansas. Governor Robinson, at his death, left the land along with other lands, to the University of Kansas, ownership to change upon the death of Mrs. Robinson.

Mr. Leonhard plowed ground on the farm and sowed wheat in the fall of 1900 after a stay in Central Illinois where he had operated a sawmill and threshing machine. In 1903 he married Ada Schaaake, reared in the same neighborhood, and took her to live in the location now occupied by Lawrence Leonhard. Upon the death of Mrs. Charles Robinson, about 27 years ago, the Leonhards moved to the Robinson mansion atop a hill overlooking the farm in the Mud creek and Kaw river valleys.

### A 10-year-old Partnership

Lawrence Leonhard was graduated from Lawrence high school and attended Kansas State College at Manhattan for a year, before returning to farm with his father. This partnership has been in effect for 10 years. Arthur Leonhard, another son, is a graduate of Kansas State College, and is now assistant county agent engaged in soil conservation work in Coffey county. A daughter, Ruby Leonhard, is secretary of Deal Six, county agent of Douglas county. A second daughter, Mildred Leonhard, is employed in Salina. Lawrence Leonhard is married and has 2 children, Wayne, 5, and Joyce Ann, 2. His wife is the former Bessie Purcell. Wheat, potatoes and grade-A milk are the chief products produced on the

Leonhard farm. A herd of 25 dairy cows is kept all of the time. A dairy herd replaced a beef cattle program 4 years ago for 2 reasons. The price of grade-A milk is more stable than finished beef and Mr. Leonhard finds that tending a herd of cows provides less vigorous employment for a man of his age.

Potatoes, corn and wheat make up the rotation planned on the Leonhard land. They aim to run potatoes on a piece of ground for 3 years, followed by 2 years of corn and a year of wheat. A good acreage of alfalfa is carried all of the time and about 50 acres of land receives a coating of barnyard manure each year.

A large acreage of the land, especially that which has produced a crop of potatoes, is planted each year to rye, wheat and oats for fall and spring pasture for the dairy herd. All with the exception of wheat to be harvested the next year is plowed up for crops the next season.

This year the farm had 57 acres of corn, 73 acres of wheat, 80 acres of potatoes, 30 acres of alfalfa, 10 acres of grain sorghum, 35 acres of soybeans, and 10 acres of Sudan grass.

### Field Stood the Test

A little more than 40 acres of the corn acreage is in the field where the contest will be held. The field saw some trying times. There was none too much moisture and some hot winds swept across it but it will be one of the best fields ever used for the national contest. High September winds have taken most of the leaves from the stalks but big ears and plenty of them are left on the field.

Mr. Leonhard has sold wheat for \$2.53 a bushel and he has sold it for 36 cents a bushel. He has sold potatoes for \$2.75 a hundred pounds and he once paid \$120 freight on a car after it had been consigned for sale but found no taker.

While Mr. Leonhard has been a tenant thruout his farming career he also is a land owner and a landlord. He owns a 160-acre farm in Jefferson county, near Oskaloosa, which he rents out.

The Leonhards are not entirely unaccustomed to acting as hosts to corn-husking contests. In 1931 the state contest was held near where the big event will be held this fall on this same farm.

The entire family extends an invitation to the people of the Nation to attend the National Corn Husking Contest on November 3.

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**GOODRICH TRACTOR TIRES FOR GREATER VALUE!**



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**GREATER SAVINGS**—\*Total savings on fuel, oil, repairs, and time, as a result of changing from steel wheels to Goodrich Tires, are greater for the average tractor owner than the cost of the tires!

**SUPER-POWER TREAD**—Scientific tread design of the Hi-Cleat Silvertown checks slippage, throws more of your tractor's power into productive work. Rugged, extra-high cleats dig right down to firm footing—provide real Gear-Tooth Traction.

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**AUTOMOBILE STEERING**—Smooth-sided, flange-treaded Skid-Ring Silvertowns working up front will make your tractor almost as easy to handle as the family car!

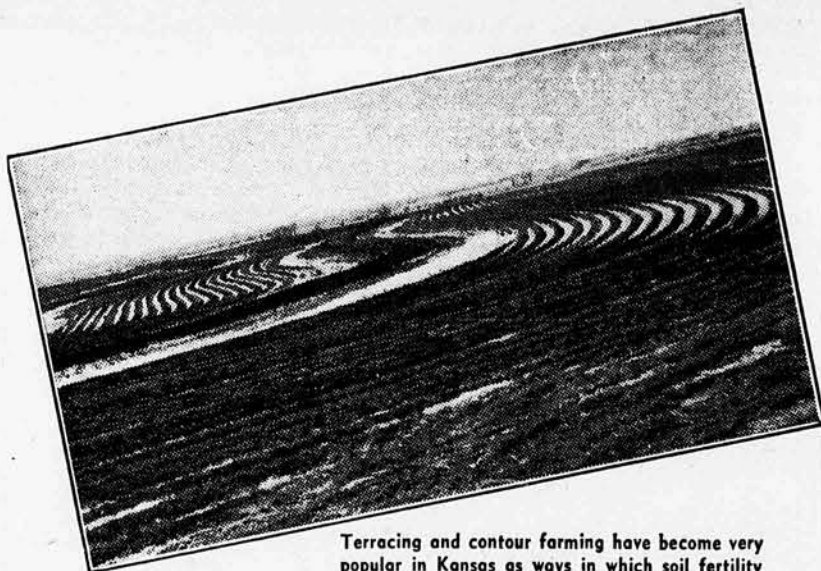
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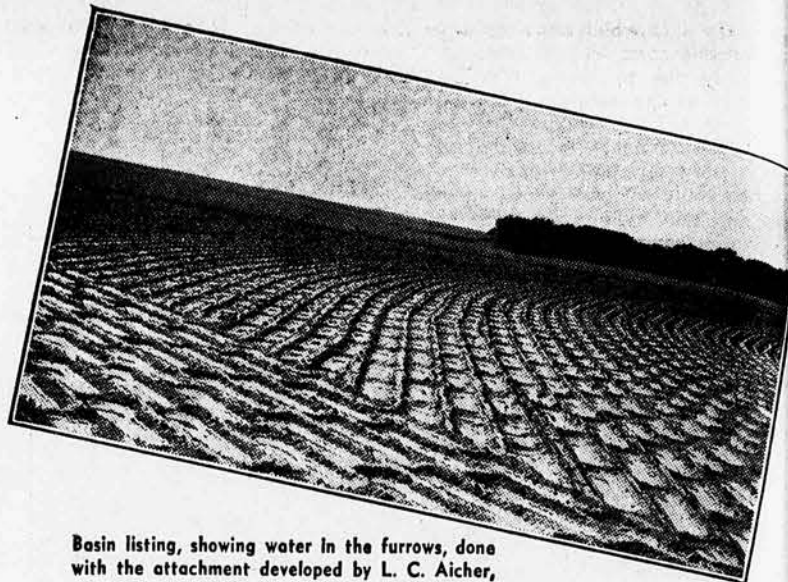
Have you seen the brand-new low-cost tractors? You can have any of these rubber-tired models delivered right now on Goodrich Silvertowns at no extra cost! Or, you can have your present steel-wheeled tractor equipped with present steel Goodrich Tires for a down payment that will take only a few dollars of your crop money. Your Goodrich dealer will give you as long as 12 months to clear the balance!

**\* Goodrich Tractor Silvertowns Save More Than They Cost!**





Terracing and contour farming have become very popular in Kansas as ways in which soil fertility and moisture can be kept where they are needed.



Basin listing, showing water in the furrows, done with the attachment developed by L. C. Aicher, Superintendent of the Fort Hays Station.

**A**GRICULTURAL practices once considered "the best" have been abandoned for other practices that make possible more economic production. Farm crops have been made to bring higher yields thru scientific plant breeding and improved cultural practices. New varieties of farm crops more adapted to our climate and soils have been introduced. Plant and animal diseases have been conquered. Methods of combating insect pests have been developed. The farmer of today has more knowledge of the factors that govern the prices he receives for his products and, therefore, markets those products more intelligently.

The progress that has been made in Kansas agriculture during the last half century has been largely due to the high level of intelligence of the Kansas farmer that has enabled him to appreciate the value of discoveries that have been made and to apply these discoveries in a practical way to every-day farm practices. No one agency alone has been responsible for these discoveries. Instead, there has been a high degree of harmony and co-operation between the several agencies whose goal was a common one—the betterment of the lives of all of us thru the improvement of agriculture, the basic industry of Kansas.

Logically, the Kansas Agricultural Experiment Station has been regarded as the major agricultural fact-finding agency in the state. Working with the station have been the State Board of Agriculture, the Extension Service of Kansas State College, the United States Department of Agriculture, the State Horticultural Society, the Livestock Sanitary Commissioner, the livestock and breed associations, the farm organizations, manufacturers of agricultural products, and hundreds of individual farmers in Kansas and the Southwest.

Undoubtedly, one of the most significant accomplishments has been the change that has taken place in the manner in which a seedbed is prepared for wheat. Not fewer than 30 years ago the common practice was to plow land for wheat in late summer when conditions were more favorable for working horses than in the heat of July and early August. All that was considered essential was to have the ground plowed and a seedbed prepared by seeding time in the fall.

The Kansas Experiment Station showed, as a result of carefully conducted experimental work, that the yield of wheat under conditions that prevailed at Manhattan was reduced on the average about 1 bushel an acre for each week the preparation of the seedbed was delayed after the middle of July. Similar work at the Branch Experiment Stations in Central and Western Kansas showed that it was even more important to prepare the seedbed for wheat early in Western

## "The Best" Gives Way to SOMETHING BETTER THUS AGRICULTURE MAKES PROGRESS

Kansas. In fact, it was shown that to omit a crop occasionally and start the preparation of the seedbed in the spring, thus practicing a period of summer fallow, was a desirable practice in this part of the state.

The dissemination of this information and the introduction of tractor power equipment has resulted in a complete change in the manner in which the seedbed for wheat is prepared. Much land is now being fallowed and where wheat follows wheat or another small grain crop the seedbed is prepared as promptly as possible following the removal of the preceding crop. In fact, it is a common sight today to see the combine being followed by tillage tools that are starting the preparation of the seedbed for the next crop.

This change in farm practice is one of the most significant and important changes that has occurred in recent years. It has resulted in a marked in-

crease in the acre yield of wheat and is largely responsible for the important position that Kansas now enjoys as a wheat state.

Another high spot in the agricultural progress of Kansas has been the large gain in the use of improved and adapted crops that have been developed in recent years, chiefly at the experiment stations. More than 25 years ago, Kanred wheat was distributed. It has yielded consistently 2 bushels more to the acre than Turkey and has added many millions of dollars additional income to the state. Blackhull wheat, developed by Earl G. Clark, of Sedgwick, because of its good yield and heavy test weight, largely replaced Kanred and added further to the farm income. More recently Tenmarq in Central Kansas and Kawvale and Clarkan in Eastern Kansas have made additional contributions. Tenmarq, because of its high yield and superior milling

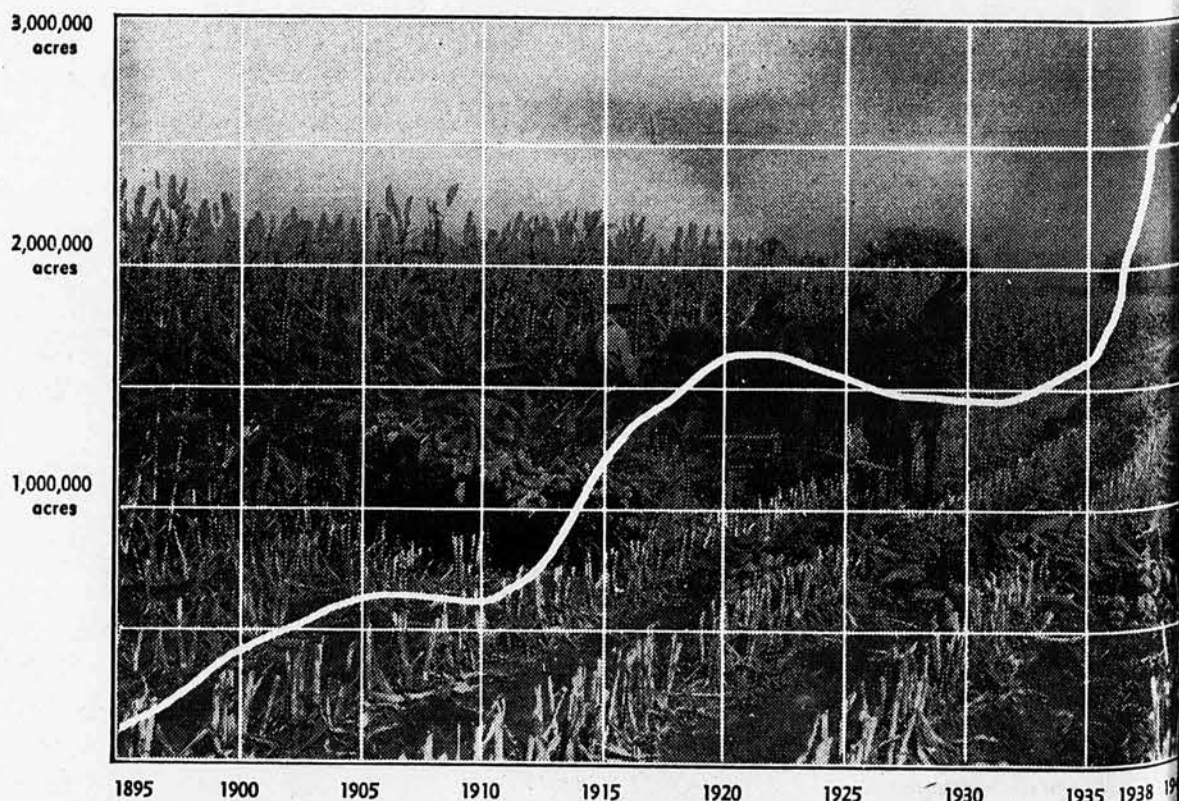
quality, is increasing rapidly in popularity and Kawvale, because it is resistant to rust, has largely replaced other varieties of soft wheat in sections of Eastern Kansas where rust occurs frequently.

The most striking example of the rapid distribution and general acceptance of a new crop variety, Kanota oats. This variety, first distributed by the Kansas Station in 1921, has been grown during the last 10 years on fully 75 per cent of the oats acreage of the state. It is conservatively estimated that the value of the increased yield resulting from the use of this variety is not less than 3 million dollars a year for the state. It has an additional value in that it is not necessary to introduce new seed as most farmers considered necessary when the Red Texas variety, the Kanota largely replaced, was grown.

Other new and improved varieties are Atlas sorgho which, because of its high forage tonnage, white seed, and resistance to lodging, has become the most popular forage sorghum; Flyer barley which has a smooth awn and is rapidly replacing common barley; Linota flax that, on account of high yield and good quality, is generally recommended for flax seed production in Southeastern Kansas; Finney milo that is resistant to milo disease; and Colby milo that, because of earliness, quality, and yield, has become the most popular grain sorghum in Northwestern Kansas.

Another high spot in the agricultural progress of the state has been

By L. E. CALL, Director  
Kansas Agricultural Experiment Station



The white line running from lower left corner to upper right on this picture of an Atlas sorgho harvesting scene, tells the story of sorghum acreage increase in Kansas.



the rapidity with which the sorghums have replaced corn. This change has been partly due to the greater dependability of the sorghum crops in dry seasons, but it has been due also to the development within recent years of more dependable varieties of sorghum, some of which have been mentioned, and by increased knowledge of the feeding value of the sorghum crops that has resulted from the extensive feeding investigations by the experiment stations.

As a result of this work, grain sorghum is known to have a feeding value fully 90 per cent as good as corn; the feeding value of the stover is usually superior to corn; for silage the sorghums produce not only from 50 to 50 per cent more tonnage to the acre than corn, but the feeding value is equal to corn until the grain yield of the corn is more than 40 bushels an acre; and the addition of a protein supplement plus a small amount of ground limestone makes sorghum silage or roughage a satisfactory winter ration for fattening cattle and sheep in the drier sections of the state where alfalfa hay is not available. This information that the sorghums can be utilized in this way, together with the wheat pasture that is often available in Central and Western Kansas, has resulted in a rapid increase in winter lamb feeding in this territory.

#### Reduced Loss From Disease

Still another high spot in agricultural progress in the state has been the success that has attended efforts to control animal and plant diseases and insects that are injurious to crops. Fifty years ago, the blackleg disease of cattle took an annual toll of approximately 4 per cent of the calf crop of Kansas and the Southwest. This disease which caused an annual loss in Kansas of more than \$44,000 has been prevented by the development at the experiment stations of anti-blackleg vaccines. In the same way, hog cholera has been practically eliminated and much progress has been made in the control of many other livestock diseases.

#### 'Hoppers Take a Beating

The Agricultural Experiment Station, since its establishment more than 50 years ago, has been working on the problems of grasshopper control and has made several contributions toward the solution of this problem. The development by the station of the "Kansas" poison brand and a demonstration of its large-scale practicability has done much to reduce the destructiveness of the insect in recent years. Other contributions toward insect control have been the development of effective means for the control of the Hessian fly and the chinch bug, the development of the first effective method for the control of the apple curculio, and the heat treatment for the control of our mill insects.

Other highlights of agricultural progress have been the increase in knowledge relative to the conduct of the farm business and changes that have taken place to improve country and the farm home. Factors that affect trends of markets for farm products are more clearly understood than at any time in the past. For more than 20 years the Department of Agricultural Economics of the Kansas Station, as well as other agencies, has been studying and analyzing these trends and very definite cycles and trend in prices are known for many agricultural commodities.

The Kansas Agricultural Situation, market report, is published monthly by Kansas State College. In this publication forecasts of market trends are made for the principal farm products and in the 16 years that the publication has been issued, the "batting" average has been consistently high, ranging from 65 to 85 per cent correct, which is thought to be an un-

usually good average. Because of such information, progress is being made in the intelligent marketing of farm products.

#### Farm Life Has Improved

In no phase of agriculture has there been greater or more desirable progress than in the changes that have taken place to improve country

life and the farm home. Good roads, the automobile, and the radio have almost annihilated farm isolation; the building of rural electric lines has carried electric energy to thousands of farm homes; rural schools have been improved and consolidated; the automobile and surfaced roads have improved travel and have made possible better school advantages for a much larger proportion of rural

youth; while the gasoline engine and the bringing of electric energy to the home have made possible a marked increase in farm home conveniences, such as running water, electric refrigerators, and motor-driven household equipment. Progress in the improvement of the farm home, while slower than is desirable, has been, nevertheless, one of the high spots in recent farm progress in Kansas.

# QUICK STARTS?

## *Sure!* BUT THAT'S NOT ALL WE GIVE!



ENJOY BOTH  
EASY STARTS  
AND  
ENGINE PROTECTION

## Mobiloil Arctic The Double Range WINTER OIL

EASY starts! Quick starts! Sure, you want an oil that lets your engine respond instantly to the starter on cold days.

But you want more than easy starting. You want an oil that gives full protection, too!

That's why you should change to Mobiloil Arctic at once.

Mobiloil Arctic permits quick starts when temperatures are low. Mobiloil

Arctic also is right on the job to protect moving parts—both at the start and after the engine warms up.

You've probably heard experienced car owners talk about Mobiloil as the double-range oil, for this is one of the qualities which has made Mobiloil Arctic America's favorite winter motor oil.

STOP AT THE  
SIGN OF  
*Friendly Service*



*Winterproof Today at*  
**YOUR NEAREST  
MOBILGAS DEALER**

#### SPECIAL EXHIBIT!

Be sure to see the Socony - Vacuum Exhibit on display in the Kansas Resources Tent at the National Corn Husking Contest November 3.

or See Your Friendly

**SOCONY-VACUUM Agent**

For a Complete Line of Money-Saving Products for Farm Machinery, Vehicles and Equipment

MOBIL OIL . MOBIL GAS . POWER FUEL .  
MOBIL GREASE No. 2 . MOBIL OIL GEAR OILS .  
KEROSENE . HILITE . MOBIL FREEZONE







Straight, sturdy stalks of hybrid corn growing in the 1939 National Corn Husking Contest field in Douglas county.

## WHAT'S BACK OF THIS CONTEST FIELD

By **ROSWELL GARST**

**P**ROBABLY more than 100,000 farmers will witness the National Corn Husking Contest at Lawrence, Kansas, on November 3. The contest will be held in a field of Pioneer 313. This is what is known as a single-cross hybrid. That is, it is a cross of only 2 inbred varieties of corn. In order to understand the hybrid industry it is positively necessary to understand what an inbred is and how it is produced.

Let's start at the beginning. If you wish to produce an inbred, this is the process you should follow. Take the best ear of open-pollinated seed you can find. Plant 20 kernels in a row. When the corn starts to put out shoots pick out the best stalk—with the ear at the right height, with the best color, the most desirable stalk of the 20—and cover the shoot, before the silks appear, with a cellophane bag. When the silks appear, cut the tassel off and hang it in a jar of water on the corn plant so that the tassel will be above the ear. Take off the cellophane bag and trim the silks back and then cover the tassel and the ear with a big paper bag so that when the silks grow out again they will be pollinated by pollen from the tassel of the same stalk and by no other pollen. This makes the kernels that are produced on the ear have the kernel that was planted as both their father and their mother. This process is known as inbreeding.

The next year take 20 kernels off this ear. They will not produce uniform stalks because they have only been inbred one year. Plant these 20 kernels in a row and again select the best stalk out of the 20 and inbreed it. The next year plant 20 kernels off that ear and again inbreed.

If this process is repeated for 6 or 7 gener-

ations, you can eliminate the poorest 19 out of 20 stalks every year. You can select for stiff, sturdy stalks, and for heavy roots, and for the right ear height. Your plant will gradually lose vigor each generation, but each generation will produce more and more uniform results. At the end of 7 generations the uniform qualities will become fixed. It is then a pure line inbred. The plant has been inbred so long that every stalk in the row will look alike—all will have the same color, the same ear type, the same ear height. Any tassel of this inbred variety may then pollinate any silk of the same inbred variety and it will still look alike because it has been bred to itself so long that it has become pure.

There are 2 striking characteristics connected with an inbred corn variety. To the casual observer the most striking characteristic will be the great lack of vigor. Many corns cannot stand 7 generations of inbreeding. They become so lacking in vigor that they fail to reproduce. Only

the best and strongest survive and even then are very lacking in vigor. Eight to 10 bushels to the acre under ideal conditions in the Central Corn Belt, where hybrids are making 10 times as much yield, are common.

The second striking characteristic is the very great uniformity of inbred varieties. The plants are all exactly the same type. The ears are on at a uniform height, the tassels are the same shape, the ears are the same type, the texture is the same. The individual plants of an inbred variety, that has been inbred for 7 generations or more, are nothing less than ridiculous in their uniformity.

The surprising thing is that when 2 inbred varieties are crossed they get back in 1 year all the vigor that has been lost in 7 years of inbreeding and at the same time the cross of the 2 varieties retains the uniformity of the 2 varieties.

When ample supplies of the 2 inbreds are available, the crossing is a very simple matter. Simply plant 1 row with 1 inbred variety and next 2 rows with the [Continued on Page

## The Future of Hybrid Corn in Kansas

**U**SE of hybrid corn has increased literally by leaps and bounds in every corn-growing area. While the hybrid industry has a rather long history—seed having been sold in the Central Corn Belt states in a commercial way for 15 years—the very great use of hybrids has come within the last 5 years. As recently as 1934, only 5 per cent of the corn acreage of Iowa was planted with hybrid corn. By 1939, 77 per cent of the corn acreage of Iowa was planted with hybrid seed.

The drought of 1934-35-36, along with the limited seed supply, kept hybrids from being planted in the whole Southwestern Corn Belt in any major way until 1938 and 1939. This year, approximately 5 per cent of the total corn acreage of Missouri, Kansas, and Oklahoma was planted with hybrid seed.

The results on the average have been grand. It is true that in parts of Kansas the weather was so severe that even the best adapted hybrid varieties produced practically no corn. But in every area where the corn was given half a

chance, the hybrids made a grand showing. The field where the National Corn Husking Contest is going to be held is an example of what hybrid corn can do for Kansas. This field was just coming into tassel on July 6, when the real weather started. It stood there for 3 weeks with temperatures above 100 every day and waited the rain. The rain happened, in this instance, to be generous when it came—3 inches—and the result is a very fine field of hybrid corn in an area which was very severe on open-pollinated corn.

Kansas is a large state. The rainfall varies greatly—from 40 inches in the southeastern corner of the state to less than 20 inches in the extreme western part. The altitude varies greatly. The result is that the hybrid corn which is planted must vary greatly.

Not only does the moisture and the altitude vary but in the eastern part of the state, where the bulk of the corn is produced, the soil varies greatly from the bottom land, such as the Kaw and Neosho Valleys, to the thinner upland.

So the future of [Continued on Page

### We Ask an Expert

**K**NOWING readers of *Kansas Farmer* would be interested in learning the facts back of the particular hybrid seed corn which was planted for the 1939 National Corn Husking Contest field, the editors went right to headquarters for their information. We asked Roswell Garst, of the Garst & Thomas Hybrid Corn Company, who produced the Pioneer 313 seed for the contest field, to tell its story which appears on this page. Mr. Garst also gives on this page, by request, his expert opinion on what he thinks the future of hybrid corn will be in Kansas.



## THERE'S Only One GREAT WALL OF CHINA

This famous defensive barrier between China Proper and Mongolia is 20 feet thick, averages 20 feet in height, and is more than 1,500 miles long. It was completed by the Chinese emperor Chin Shin Huang Ti in 214 B.C.

## ...and Only One COP-R-LOY FARM FENCE IT'S MADE EXCLUSIVELY BY WHEELING AND IS HEAVY ZINC COATED

The wires in Wheeling Farm Fence are drawn from genuine COP-R-LOY the superior Wheeling rust-resistant metal. The coating is applied hot Wheeling's exclusive process to create a tighter, longer lasting bond zinc to metal, with pure zinc as the outer barrier and zinc iron alloy fused and a part of the wire itself. Every roll is pre-tested at the factory and backed by a written guarantee of quality and service. Insist on the genuine COP-R-LOY Fence! It is now better than ever in Wheeling's Golden Anniversary Year. See your Wheeling dealer!

WHEELING CORRUGATING CO.  
Wheeling, West Virginia



## THIEVES BEWARE

### Protective Service Guards Farms in 30 States

By J. M. PARKS, Manager  
Kansas Farmer Protective Service

STARTING in a small way, 12½ years ago, the Protective Service, sponsored by Kansas Farmer, has grown steadily in prestige and achievements until now the influence of its related agencies is felt in law-enforcement circles from coast to coast.

The Capper's National Protective Service, and Anti-Crime Association, which are the outgrowth of the agency begun by Kansas Farmer, are truly national in scope as they are now operating in two-thirds of the states. Rewards have been paid by these agencies for the conviction of thieves in 30 different states. More than 2,000 of these went to persons in Kansas and Missouri alone. Top-notch counties, so far as the number of rewards is concerned, are Pemiscot county, Mo., and Montgomery county, Kan. The former has received 70 and the latter 44 rewards.

Law-breakers think of the Protective Service warning sign as a danger signal. The signs mean the farmers

who display them are on their toes, ready for action, equipped with full knowledge of what to do in case of theft. Thieves know, too, that in all probability, all property back of these signs of protection is marked for identification by the Capper marking system.

Law-enforcement officers think of the Protective Service and its standing reward offer as a forceful inducement to private citizens everywhere to report thefts or suspicious characters promptly to local officials. The farmers, themselves, think of the Protective Service as an ever-present force working for the safety of farm property against thieves or swindlers. An agency with an unbroken record of service, extending over a period of 12 years, during which time it has paid \$111,065 in rewards for the conviction of 4,779 thieves and other criminals who have molested property of its members, has a right to be proud of its record.

## Certification

(Continued from Page 12)

usually by members of the Kansas State College experiment station and extension staff. Occasionally well-trained farmers and producers are used in this work.

At the time of field inspection, methods of harvesting, storing, and cleaning seed, which will preserve the purity and quality, are discussed with the grower. When the seed is harvested and cleaned for market, a representative sample is submitted to the secretary of the association for laboratory analyses. If the field report is satisfactory as to isolation and purity, and if the laboratory report shows a high purity and germination, a certificate covering the field in question is issued. The issuing of a certificate of certification gives the grower the right to advertise and sell the seed as certified and to tag each lot with the blue certification tag provided by the association. During the last 12 months, 50,000 such tags were issued to certified seed growers in Kansas.

The cost of certification is borne by dues, fees, and association sales tax paid by the members who request field inspection.

The crops certified by the Kansas association are wheat, oats, spring and winter barley, flax, sorghums, soybeans, alfalfa, Sweet clover, Red clover, lespedeza, brome grass, and corn.

Eight varieties of open-pollinated field corn are certified in Kansas. They are Reid, Midland, Kansas Sunflower, Hays Golden, Pride of Saline, Freed, Cassell, and Colby Yellowcap. The association is now making plans to certify the production of hybrid corn seed.

The directors of the Kansas Crop Improvement Association in February, 1939, authorized President Deaver to appoint a special committee to make plans for hybrid seed corn certification. This committee includes Harold E. Staadt, Ottawa, chairman; O. J. Olson, Horton; and Ralph Hockens, Arrington.

The list of growers of certified seed is considered an authentic source of good seed, true to varietal name, free from noxious weed seed, of good germination and of high quality. Its value is indicated by the rapid disappearance of pure seed of a crop variety not produced under certification. Pure Atlas sorghum seed can be purchased throughout the state but pure seed of Black Amber sorghum, once a popular variety, is difficult to find.

Thousands of dollars and years of time are consumed in the production of new crop varieties. This work is largely in vain unless some organized method of maintaining pure seed stocks of these crop varieties is provided. The answer is certification.

## What's Back of Contest Field

(Continued from Page 24)

other inbred variety. Plant the whole field alternately 1 and 2, 1 and 2.

Then every day, from the time the first tassel appears until the tasseling season has passed, go thru the field and pull all the tassels out of the variety which you plant with the 2 rows. Be sure that you get all of these tassels pulled every day as they come out before they shed any pollen. This simply castrates that particular inbred variety and any kernels which are produced on these detasseled stalks must have the other inbred variety for a father. The kernels produced upon these detasseled inbred stalks, which have been pollinated by another inbred, are known as a single-cross hybrid.

The ears which are produced on the stalks upon which the tassels were left, are, of course, still inbreds.

And such is the parentage of the field of Pioneer 313 in which the National Corn Husking Contest is being held November 3. The mother of this corn was an inbred that was carefully

detasseled in the summer of 1938. It is not a particularly attractive mother—it yielded not more than 10 bushels of corn to the acre, corn which looks very inferior. And the father was another inbred—he was even poorer—he probably did not yield in excess of 8 bushels to the acre. He was so weak that he produced not too much pollen with the result that kernels on the detasseled stalks were almost all round.

Probably no poorer looking seed has ever been seen than the seed which was planted to produce the field in which the contest will be held. It simply could never have been sold on its looks. And yet the results produced by this seed have been so phenomenal that the field has probably produced more comment than any other cornfield in the United States this year.

The fact that hybrid seed may look bad and yet produce phenomenal results makes it absolutely imperative to buy it from a producer with a reputation for honesty and fair dealing.

## THERE'S Only One MT. RUSHMORE NATIONAL MEMORIAL

The most massive statuary in the world. The mammoth heads of Washington, Jefferson, Theodore Roosevelt and Lincoln, now being carved in the granite of Mt. Rushmore, So. Dakota by Gutzon Borglum and his men, dwarf any similar work ever attempted.

## ...and Only One SUPER Channeldrain ROOFING IT'S MADE EXCLUSIVELY BY WHEELING OF Genuine COP-R-LOY AND IS HEAVY ZINC COATED

The popularity of Wheeling Super Channeldrain roofing has resulted in many imitations. But no imitation can duplicate its weather-tight and weather-resistant construction. Super Channeldrain is the only roofing with its patented, deep emergency drain channel and double ridge at the side lap. "When It Rains, It Drains."

Only Super Channeldrain is made of COP-R-LOY, the famous Wheeling metal that has greater resistance to rust and corrosion. Every sheet is hot galvanized with an extra heavy coating of pure zinc. Ask your dealer for genuine Super Channeldrain, the longer-lasting, patented roofing.

WHEELING CORRUGATING CO.  
Wheeling, West Virginia





## CHAMPIONS YEAR IN AND YEAR OUT

### COLORADO LOK TWIST POULTRY NETTING

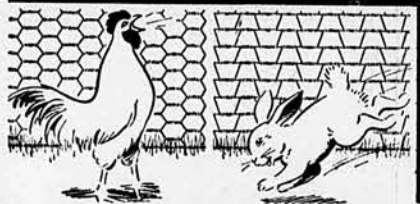
(Straight Line and Hexagon Meshes)

Made to Prevent Sagging and Bagging—For  
Sturdy and Serviceable Enclosures

Full gauge, heavily gal-  
vanized, tightly woven,  
strong, springy—made  
of new billet, copper-  
bearing steel wire—

### COLORADO FENCE

*Stands for the West!*



**The Colorado Fuel and Iron Corporation**

General Offices: Denver, Colo.

Steel Works: Pueblo, Colo.

### Bargains for Everyone in the Family

There are lots of bargains listed in the Classified Advertisements on page 50 of this issue. Almost anything you need for the farm or home. Look them over and you will find what you need.

## Radio Will Take the Contest To Every Corner of the U. S.

Time, 11:30 a. m., November 3.

WHEN the opening gun sounds to signify the start of the 1939 National Corn Husking Contest on the F. H. Leonhard farm near Lawrence, Kan., on Friday, November 3, the National Broadcasting Company again will have its announcers and microphones on the scene to bring an "ear-by-ear" description of the colorful event to radio listeners all over the country.

The broadcast will be heard during the National Farm and Home Hour, starting at 11:30 a. m. over the NBC-Blue network. Listeners from Maine to California and from Minnesota to Florida will hear the thrilling account of the grueling battle for the national corn husking title.

William E. Drips, of Chicago, NBC director of agriculture, will be on the scene to supervise the Farm and Home Hour broadcast. Everett Mitchell, also of Chicago, veteran announcer of 16 years' experience in radio, will



William E. Drips, NBC Director of Agriculture, will supervise Farm and Home Hour broadcast from the National Husking Contest near Lawrence.

be there to tell the graphic story of the contest over about 100 NBC-Blue network stations.

A special booth is being erected, Lawrence overlooking the contest field. This booth will house the mechanical equipment necessary to receive and relay the broadcast from the field to the radio network. Mitchell will be stationed in this booth where he will have an excellent view of the progress being made by the contesting huskers. NBC also will utilize a mobile transmitter which will follow the huskers down the rows. An announcer will be stationed atop this mobile unit from which point he will describe the action of the various huskers. Thousands of miles of telephone wires will be humming as they transmit the broadcast of the Kansas contest to the radio audience. Cotton farmers in Alabama as well as fruit growers in California and business executives in New York City will be able to hear the ears of corn hitting the bangboards with machine-gun regularity as the champion huskers from 11 states make their bid for the national title.



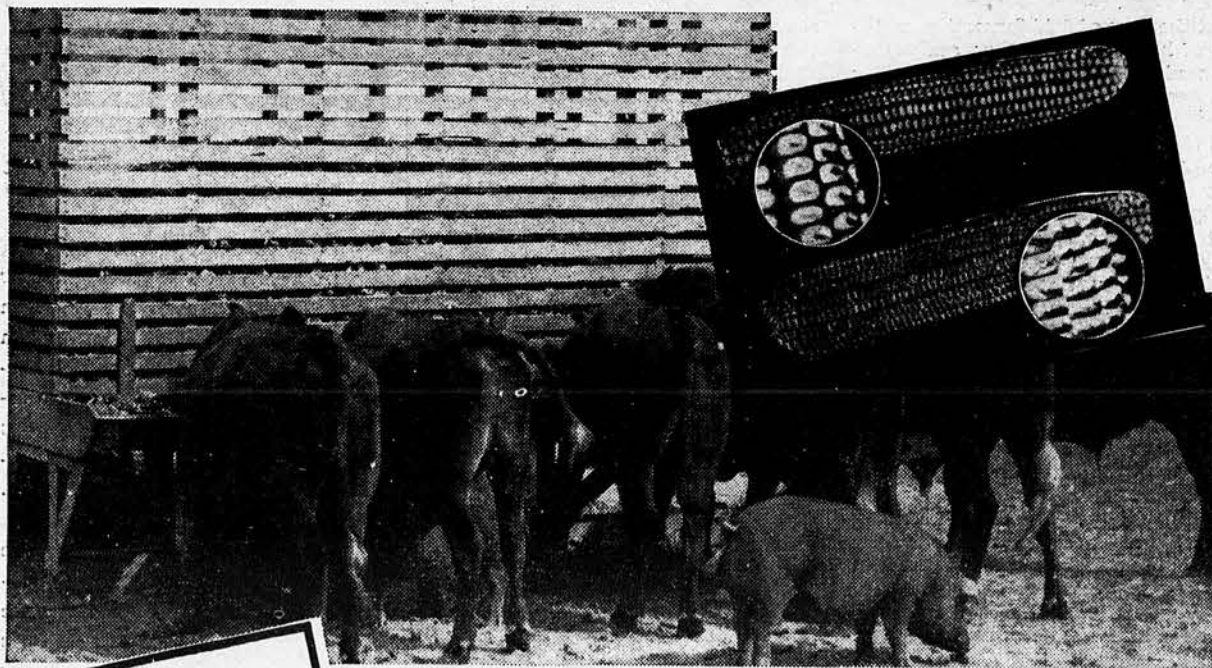
Everett Mitchell, veteran announcer, will tell the story of the contest over the NBC-Blue network of about 100 stations.

—KF—

### Eager for Contest

As far in advance of the National Corn Husking Contest as a month, the contest site attracted many visitors daily. On Sunday, October 15, with the contest about 3 weeks off, an estimated crowd of 7,000 people visited the field on the farm of F. H. Leonhard near Lawrence.

# They Like DeKalb Hybrids in KANSAS



### NOTICE! Kansas Farmers

No matter how good the corn you have been growing, you owe it to yourself to investigate these DeKalb varieties for Kansas. DeKalb 816 is noted for its extreme vigor and ability to produce a good crop in spite of drought; DeKalb 899 has extra heavy root system; DeKalb 892 does well on different soils—lowlands, midland or uplands. There are also a number of other varieties that make a quick, vigorous early growth.

In 1939, the acreage of DeKalb hybrids in Kansas increased more than three times. Now, for 1940, nearly all the outstanding DeKalb varieties and many special varieties are available for Kansas.

DeKalb has pushed yields up and up. But DeKalb corn breeders have not been satisfied with just higher yields. Early in their work they set out to develop superior feeding hybrids. Now there are several DeKalb varieties which in feed tests have proved far superior to open-pollinated corn. Here is another important point. In DeKalb you can choose the type of ear and kernel to suit your way of feeding. You can get practically any degree of softness or type of kernel you want—smooth kernel, medium dent, soft rough dent, etc.

For Kansas, DeKalb has developed corn that makes the most of hot growing seasons and frequent drought. Yields this last season proved the adaptability of many DeKalb varieties to severe Kansas conditions. For 1940, DeKalb has gone even further in providing special hybrid corn for Kansas. If you want to get the most out of your 1940 crop, find out about these new varieties now.

**Free**

### NEW CROP AND WEATHER DIARY

This handy, simple farm planning book has 365 dated spaces for keeping track of weather and important farm happenings daily; crop acreage and yields; a plot to map your farm fields. Contains valuable weather and farming information. Your copy will be sent FREE. Write today. Address DeKalb Agricultural Assn. at DeKalb, Ill.



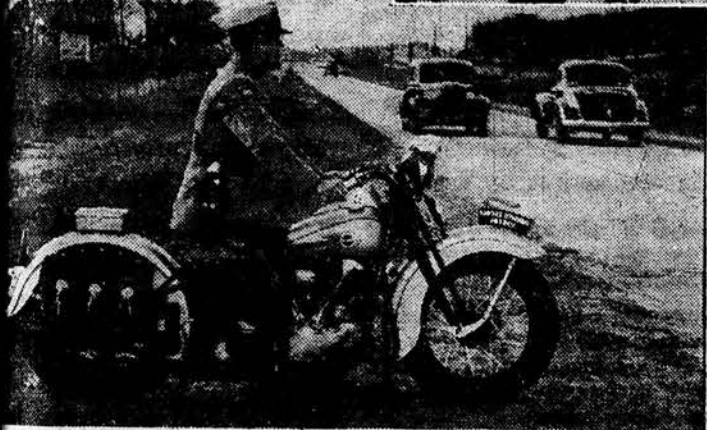
**DEKALB AGRICULTURAL ASSOCIATION**  
Founded by the First County Farm Bureau in America  
37 EXPERIMENTAL FARMS • 1700 PROVING GROUNDS • 31 PRODUCTION AREAS • 10 PROCESSING PLANTS  
IOWA • ILLINOIS • NEBRASKA • INDIANA • WISCONSIN • MISSOURI • MINNESOTA • SOUTH DAKOTA • OHIO • MICHIGAN • KANSAS



Army of Officers to

## DIRECT NATIONAL CONTEST TRAFFIC

MORE than 2,000 peace officers will be on duty at the National Corn Husking Contest, near Lawrence, November 3, under the personal direction of Col. E. T. Moomau, director of the State Highway Patrol. Will Zurbucken, assistant superintendent of the State Highway Patrol, explains that this number will include about 55 highway patrolmen, 55 members of the Lawrence police force, sheriffs from Douglas and surrounding counties, nearly 900 legionnaires, and representatives from the National Guard from Haskell Institute. Officials of the State Highway Patrol have contacted the Kansas Motor



Top—Col. E. T. Moomau, Superintendent of the State Highway Patrol, who will be in personal charge of traffic at the National Corn Husking Contest, November 3.

Top—Col. E. T. Moomau, Superintendent of the State Highway Patrol, who will be in personal charge of traffic at the National Corn Husking Contest, November 3.

Visitors attending the contest will have no trouble finding it. Lawrence officials co-operating with the Highway Patrol, have placed signs on every road within a radius of 30 miles of the field, pointing the way to the contest. Once in the vicinity of the field, they will find parking space in part of the 310 acres set aside for that purpose. The parking field will be divided into sections by long rows of brush driven into the ground to indicate parking in straight rows so that available space will be used to best advantage.

Visitors attending the contest will have no trouble finding it. Lawrence officials co-operating with the Highway Patrol, have placed signs on every road within a radius of 30 miles of the field, pointing the way to the contest. Once in the vicinity of the field, they will find parking space in part of the 310 acres set aside for that purpose. The parking field will be divided into sections by long rows of brush driven into the ground to indicate parking in straight rows so that available space will be used to best advantage.

### How Your Knots

Nothing is more useful on a farm than knots. Not a day goes by but what knots are used in some form or another. Poorly tied knots often endanger lives, and many accidents occur every year from knots that "slipped." How to tie some of the most useful knots on the farm, as well as information on splicing ropes and whipping ends, is contained in the free booklet, "Useful Knots and How to Tie Them." For your free copy of this illustrated booklet, send a post card to Farm Service Editor, Kansas Farmer, Topeka.

Col. E. T. Moomau, superintendent of the State Highway Patrol, and Mr. Zurbucken, have flown over the entire Lawrence area in planes and have mapped out detailed plans for handling cars that will bring a crowd of around 150,000 persons to the vicinity of the contest field. Both Col. Moomau and Mr. Zurbucken will be in action that day to help direct handling of the autos.

Along with them will be Brigadier General M. R. McLean of the National Guard, and a long list of local peace officers. At least 40 men will be on horseback to help with parking. Some of the horses and riders have recently returned from duty at the New York World's Fair grounds and they are well-trained for this kind of work. These experienced members are from the Haskell Institute.

Protecting each corn husker in the field will be 40 Legionnaires who will form a solid fence around their charge and spare him the interference of over-enthusiastic spectators. Army planes flying over the field will keep the entire situation under constant observation.

Official grounds for contest managers and peace officers will be a 43-acre field, directly south of the corn field. Roving in the vicinity of this field will be 2 well-manned patrol cars and 1 police car equipped with a police radio to receive reports of operations at other points throughout the vicinity.

Also with this group will be a car equipped with a public address system. Audible for a distance of approximately three-fourths mile, this instrument will be used for directing traffic and making miscellaneous announcements. Lost and found articles, lost children and other emergency matters will be taken care of when reported.

The contest site will be well patrolled.

## TODAY 13 OUT OF 17 TRACTOR COMPANIES MAKE

## HIGH COMPRESSION TRACTORS

WHAT'S BEHIND THE NEWS that most leading tractor companies today are making high compression models? What does it mean to farmers who are thinking about buying new tractors soon? Simply this: Tractor companies know that farmers want the most powerful tractors they can buy for their money—tractors that have the power to plow through "tough" soil, or plow in higher gears, or haul more implements, and still be economical of fuel and oil. Tractor engineers have proved that a tractor gives more of all these advantages when it has a high compression engine, designed to burn regular-grade gasoline. Furthermore, such tractors give better idling and eliminate the nuisance of frequent adjustments of the radiator curtain. That's why 13 companies now make high compression models.

If you are thinking about buying a new tractor soon, whether it is a "baby" tractor or a heavy duty machine with a six-plow capacity, you will find somewhere near you a dealer that sells high compression tractors. Buy no tractor until you have talked with him. Ask him for the names of some of your neighbors who have bought high compression tractors. Find out what they say about fuel economy, added power, greatly decreased oil dilution. Then decide if that isn't the kind of tractor that will do your work quicker and save you money. Remember also that most low compression tractors can be converted to high compression by installing high compression ("altitude") pistons or cylinder heads and changing to a "cold" manifold setting or a "cold" manifold. Ethyl Gasoline Corporation, Chrysler Building, New York, N. Y. manufacturer of anti-knock fluids used by oil companies to improve gasoline.

## Livestock Advertising

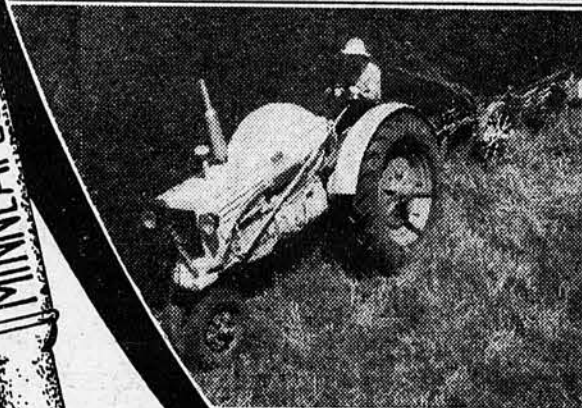
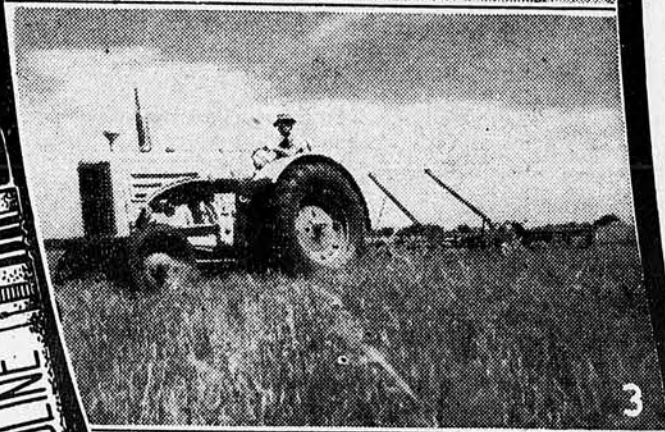
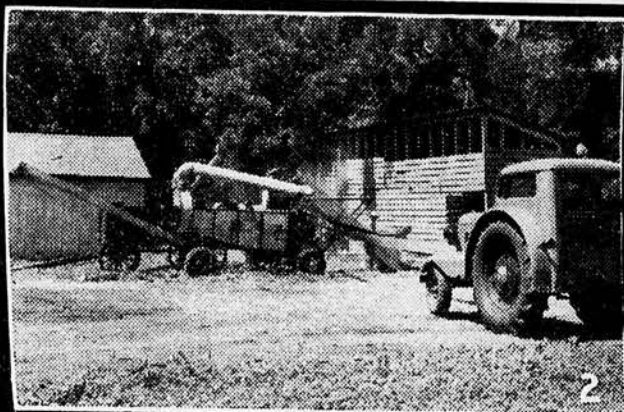
in Kansas Farmer is read by up-to-date breeders and those who contemplate going into the livestock business. Ask us for low rates.





# Of such Champs made

Luck alone never won vic ch  
hours of training back of e ma  
hard effort in the school ce  
tion to WIN. . . . This year skin  
prove the truth of these sta w  
ings in the World's Most ine  
Machinery. MINNEAPOLIS E H  
the accumulated experien eng  
75 years. Every new trac me  
ing experts plan for you, ult  
testing and re-testing. On pr  
another MM champion is ough  
farming world has come the l  
the name MINNEAPOLIS



1. New Universal "R" with cab — 2 row cultivator and hydraulic power lift. 4 speeds forward — adjustable tread — visionlined.
2. MM Comfortactor running big capacity MM Sheller. A real money making outfit for farmers. UDLX — 5 speeds from a crawl to 40 M.P.H. — power on belt, drawbar, power take-off on the drawbar and for hi-way hauling.
3. New MM GT Tractor pulling 5 bottoms in hard dry soil. Remember the GT is the new power and fuel economy champion. World's most modern big capacity tractor.
4. New Universal "Z" with 5 speeds forward and new Hi-Klearance MM 3 bottom plow. The original Visionlined tractor — better vision with SAFETY. A complete line of Quick-on — Quick-off machines.
5. New Standard "U" pulling large Moline Monitor Drill. A championship combination. The "U" is Visionlined and has 5 speeds forward.
6. New Universal "U" with 4 row cultivator will finish your cultivating jobs in a hurry. 5 speeds forward — complete line of Quick-on — Quick-off machines.
7. Universal "R" with comfort-cab pulling a 12 ft. Harvester in a heavy field of grain — two leading sellers. The record of the HARVESTOR proves its Economy and superiority year in and year out.
8. New Universal "R" and 2 Row Harvester. wheels are adjustable in and out. facts and yet it is strictly up to MM Twin City re
9. Standard "U" pulling the world's Whe Plow — the MM. For years the has has parade of progress in plowing. Spe ex features are the reasons.
10. Standard "U" and MM Uni-T damming attachments. Get Com Uni-Tiller method of farming for semi-
11. Universal "U" with spring tool. There is a complete line of tool do a complete farming job under all c
12. The World's most modern Hual the MM Comfortactor with ma no other tractors have and the MM with longer picking rolls and more rolls to do a better job.

Since it is to your advantage to get complete facts and make your own comparisons, we would like to have you tell us exactly what farm machines and what size tractor you will likely buy this year. For the opportunity of presenting the facts about MM modern machines for the farm, we will be glad to send you a free MM bullet pencil. We suggest you get facts at once and buy as soon as possible.

Send  
COUPON  
Today!

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|--|------------------------------------|
| <input type="checkbox"/> Universal "R" | <input type="checkbox"/> Harvester |
| <input type="checkbox"/> Standard "R"  | <input type="checkbox"/> Grab      |
| <input type="checkbox"/> Universal "Z" | <input type="checkbox"/> Three     |
| <input type="checkbox"/> Standard "Z"  | <input type="checkbox"/> Tractor   |
| <input type="checkbox"/> Universal "U" | <input type="checkbox"/> Sprayer   |
| <input type="checkbox"/> Standard "U"  | <input type="checkbox"/> Hammer    |
| <input type="checkbox"/> New "GT"      | <input type="checkbox"/> 2 Row     |
| <input type="checkbox"/> Comfortactor  | <input type="checkbox"/> Uni-T     |

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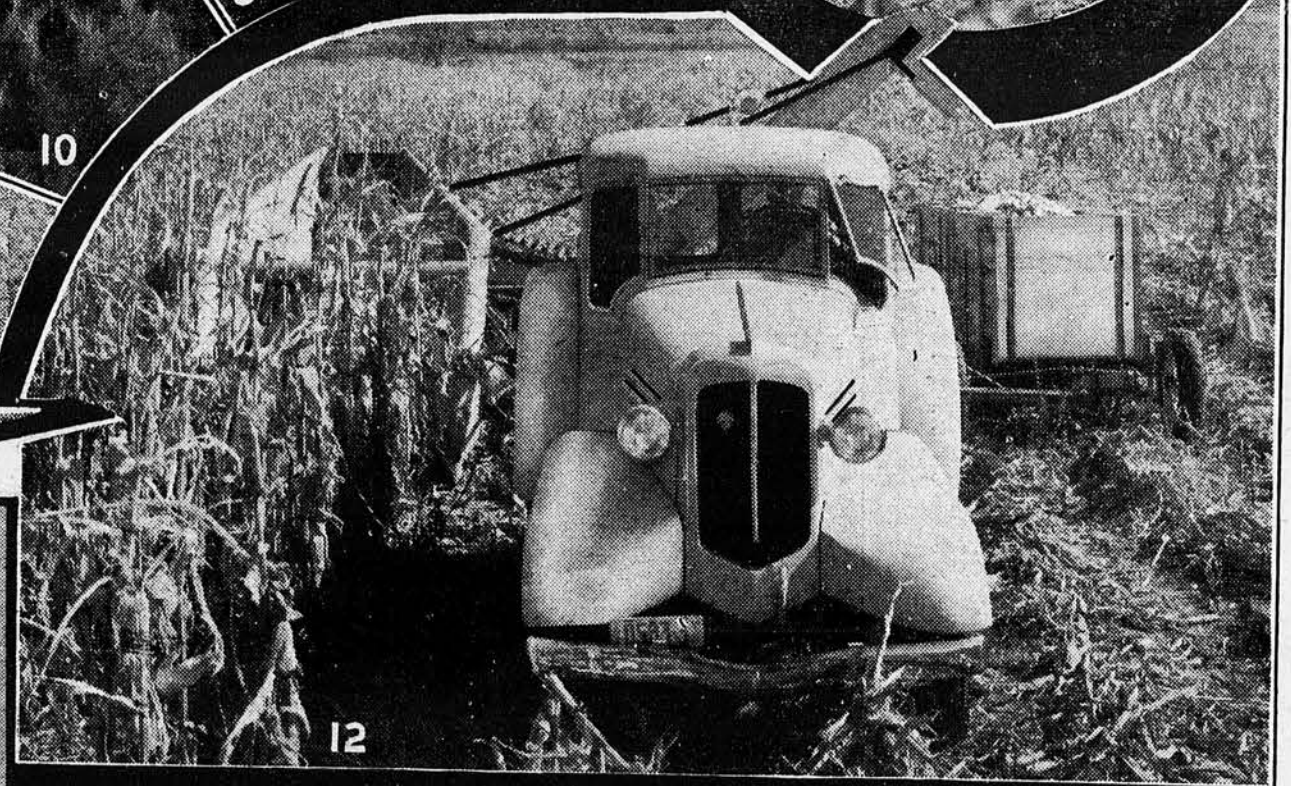
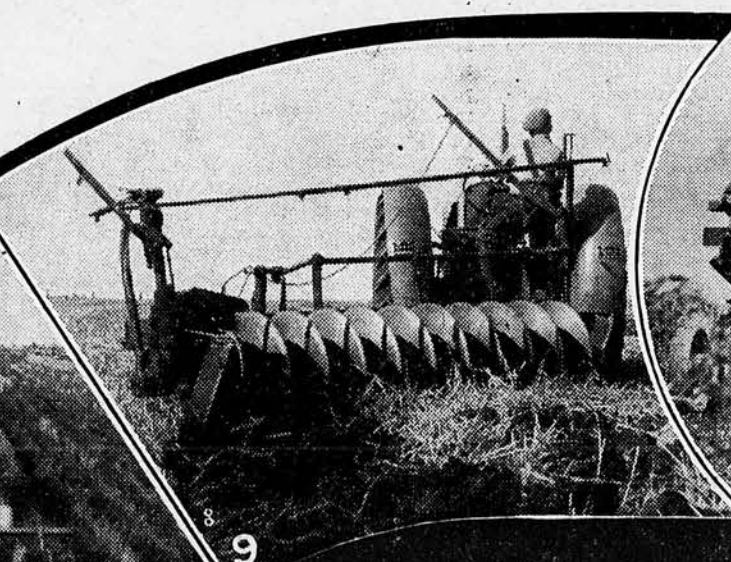
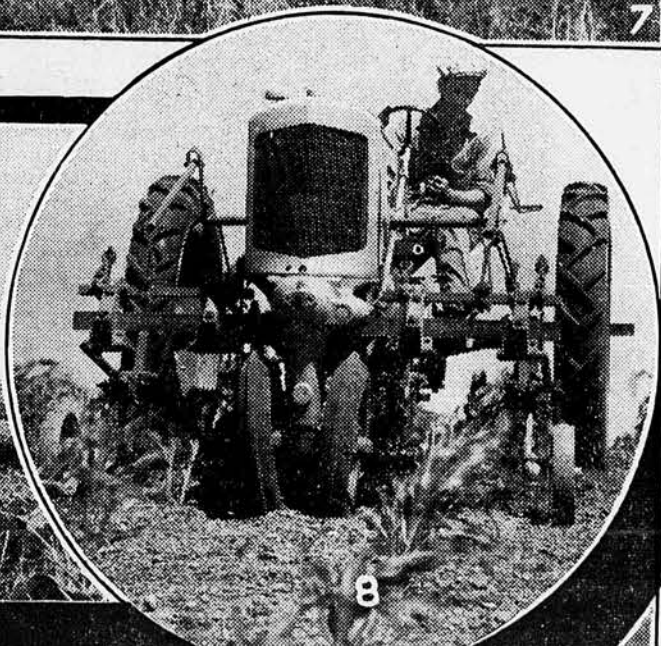
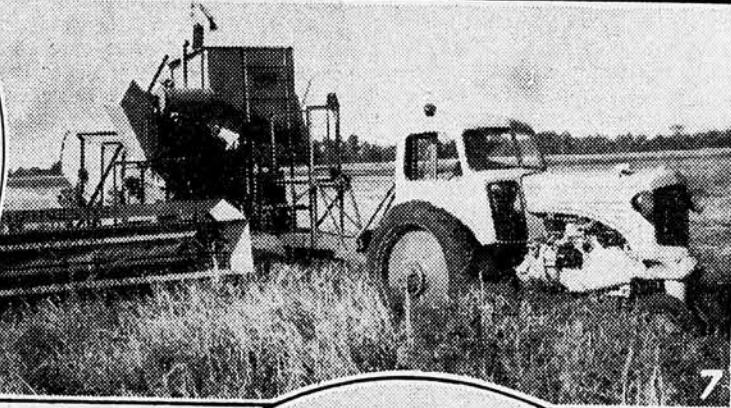
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# Sorghums Stabilize Feed Supply

## Adapted to All Conditions; Handled Well With Modern Farm Machinery

By R. I. THROCKMORTON, Agronomist  
Kansas State College

**I**NTRODUCTION of sorghums into Kansas during the latter half of the last century definitely changed our agricultural outlook. Previous to that time, corn was the only crop available for extensive production as a grain feed for livestock. The sorghums, with their ability to escape drouth and resist high temperature, found a welcome home on Kansas farms. They began to replace corn as a feed for all types of livestock. The sorghos, more commonly known as sweet sorghum or forage sorghum, became especially popular as dry feed and as silage.

Altho the sorghums introduced into Kansas were extremely valuable, most of them have been replaced today by improved varieties. These have widened the range of adaptation of the sorghums and extended their usefulness. Many of the new varieties are also much better adapted to production methods with modern farm equipment than were the older varieties.

Sorghum is the most important feed crop grown in Kansas because of its wide range of uses and of its capacity to produce in seasons of adverse climatic conditions. As a dry feed, or silage, it is an excellent feed for both beef and dairy cattle. The grain is virtually equal to that of corn as feed for all types of livestock. The sorghos, or sweet sorghums, excel all other crops for silage purposes in virtually all sections of the state while the best grain sorghum varieties lead in grain production in all sections of the state except on the better corn lands of the northeast.

### A Very Dependable Crop

Altho sorghum is one of the most dependable crops produced in Kansas its value is not fully appreciated and, consequently, many individuals continue to attempt to produce corn under soil and climatic conditions that are much more favorable for sorghum. This is perhaps due to the fact that it requires better farming practices for successful sorghum production than for corn production.

Irving G. Walden, New Cambria, has recognized the value of sorghums. He says the sorghums have a definite place in Kansas agriculture and that they will make a feed crop when corn is a complete failure. Mr. Walden grows both grain and forage sorghums and always blank-lists in the fall or early winter in preparation for the crop.

The ideal seedbed for sorghum is a warm, mellow soil of good tilth having an abundance of moisture and available plant food materials. Under such conditions the seed germinates quickly and the plants grow vigorously. In Central and Western Kansas one of the most successful methods of preparing the land for sorghum is to blank-list in the late fall, winter or early spring and then to level the ridges with a lister cultivator when the first weed growth starts in the spring. The seed is then planted in the old furrow just a little less deep than the land was listed. Under this condition the seed is placed in warm, mellow soil that has been exposed to weathering on the tops and sides of the furrows.

Walter J. Pierce, Jr., of Hutchinson, a successful producer of sorghum, says he plows or lists in the fall for the first preparation. Then he cultivates sufficiently in the spring to prevent all weed growth and form a granular condition of the soil. Walter has 3 rules for successful sorghum production:

- (1) Prepare the ground in the fall.
- (2) Keep down the weeds previous to planting.
- (3) Plant good seed of an adapted variety.

The Division of Dry Land Agricul-

ture, U. S. D. A., and the Kansas Experiment Station working at Hays, found that over 8 years the average yield of grain sorghum was 36.5 bushels an acre on land that was blank-listed in the fall and cultivated in the spring, while the average yield was only 21.9 bushels an acre when the crop was planted with the lister without previous cultivation.

At the Garden City station the average yield of kafir over 14 years was 8.1 bushels an acre when the crop was planted with the lister on land that did not receive previous preparation. When the land was listed in the fall, ridges worked down and the crop planted by nosing out the old furrows, the average yield was 18.1 bushels an acre.

When blank-listing cannot be practiced during the fall, winter or early spring, the land should be thoroughly disked early in the spring to destroy all weeds and to aid in pulverizing the soil. Yields obtained following this method of seedbed preparation have averaged 5 bushels less to the acre than when the land was listed in the fall and almost 10 bushels more an acre than when the land received no preparation previous to planting.

The seedbed for sorghums in Eastern Kansas usually can be prepared to best advantage by plowing the land in the fall and disking and harrowing in the spring to destroy all weeds and form a good physical condition of the soil. Surface planting, with furrow openers, is desirable thruout the eastern part of the state except on heavy soils where the furrow openers should not be used. Listing is advisable only on the more drouthy soils and where erosion is not likely to occur.

### Rate of Planting Varies

The rate at which the sorghums are planted varies with climatic conditions and whether the crop is produced for grain or forage as well as with the quality of the seed. The grain sorghums and the sorghos, or sweet sorghums, when grown primarily for seed, should be planted at the rate of about 4 pounds of good seed to the acre in Eastern Kansas, 3 pounds in Central Kansas, and from 2 to 2½ pounds an acre in Western Kansas.

When sorghum is grown in rows, primarily for forage, the rate of planting should be about 2 times as great as when grown for grain. Excessively

heavy planting tends to deplete the reserve supply of soil moisture during the early part of the season and thus causes the crop to be more subject to injury during periods of drouth.

The sorghums are warm weather plants and require a warmer soil for germination than corn. For this reason the sorghums should not be planted until the soil is thoroly warm and in good tilth. In Southwest and South Central Kansas sorghum may be planted from May 5 to 10, while the date becomes later farther north and west. At Hays the highest yield of grain has been obtained from the early maturing varieties by planting about June 15, while the highest yield of the late maturing varieties were obtained by planting May 15.

### Can Use Wheat Machinery

The introduction of dwarf types of grain sorghums adapted to combine methods of harvesting has suggested the use of the grain drill as a means of planting the crop. The chief limitations in the use of the grain drill for planting are the danger of weed infestation due to an inadequate preparation of the seedbed previous to planting and a lack of moisture to meet the needs of the crop. The first factor may be overcome by thoro cultivation previous to planting or by fallowing the previous year. The second factor may be overcome only by fallowing the year previous to planting or using this method only when the soil is well supplied with subsoil moisture. The grain drill method of planting is not adapted to Central and Eastern Kansas because of the weed problem. When sorghums are planted with the grain drill the rate of planting to the acre should be the same as when they are planted in 40- or 42-inch rows.

Sorghums have no exacting requirements as to soil or as to place in a rotation, but since the crop does best when there is an ample supply of plant food and moisture it may take the same place as corn in a rotation in Eastern Kansas. It is usually safer to plant sorghums rather than corn after alfalfa or clover. The first crop after sorghum in Eastern Kansas should be soybeans, corn, flax or oats. Sorghum land should be fall-plowed for these crops. Wheat should never follow sorghum in a rotation.

In Central and Western Kansas, sorghum should usually follow wheat

or another small grain crop and should be followed by fallow, oats or barley. Since sorghum responds profitably to fallow in Central and Western Kansas, at least a portion of the crop should be planted on fallow in these sections each year as a means of stabilizing feed supplies.

It is commonly said that sorghum injures the soil or that it has a toxic influence. Experiments conducted at Manhattan show that yields of oats have been just as high on fall-plowed kafir land as on fall-plowed corn land. At Hays yields of spring barley have been as high following kafir as following corn.

The old varieties of grain sorghums as Standard Blackhull, which has its best adaptation south and east from Saline county; Dawn, adapted to Central and Western Kansas; Pink, adapted to Central and North Central Kansas; and Dwarf Yellow milo, adapted to Southwest Kansas are valuable and continue to have a definite place in Kansas agriculture. The old varieties of sorgho, or the sweet sorghums, also continue to have a place. This is especially true of Early Sumac which is one of the best varieties for Western Kansas and Kansas Orange for the thinner uplands of the southeast portion of the state.

New varieties, however, have replaced many of the old varieties during the last few years. This replacement has taken place in part, because the new varieties are better adapted to certain sections of the state.

The introduction of Wheatland, the first of the types well-adapted to harvesting with the combine, did much to stimulate grain sorghum production in Western Kansas. It eliminated the old laborious method of harvesting and made sorghum harvesting comparable to wheat harvesting.

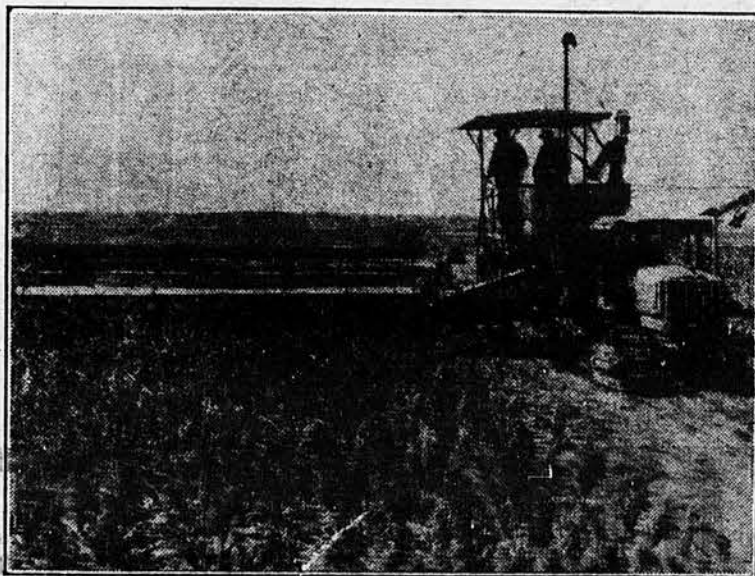
### Other Combine Types Appear

After the introduction of Wheatland, other combine types soon appeared. The more common of these are Beaver, Sooner, Day, and Colby. The most recent development, Colby, is early maturing and has its special adaptation to North Central and Northwest Kansas. Altho Wheatland continues to be the most popular combine type for Central and Southwestern Kansas, because of its high yielding capacity and ability to remain erect after maturing, mention should be made of Sooner, also known as Sixty Day, because it has the ability to produce some grain under relatively severe conditions. It does not, however, have as high a producing capacity under favorable conditions as does Wheatland.

All of the combine types available at this time are related to Milo, are extremely susceptible to chinch bug injury and, therefore, should not be grown in the eastern sections of the state. Another objection to growing these types in Eastern Kansas is that they cannot compete successfully with weeds and do not have as high a potential yielding capacity as do the taller varieties adapted to the area.

Atlas, the most popular and most valuable of the sorghos, is well-adapted to Central and Eastern Kansas. It excels all other varieties and all other crops for silage purposes thruout these regions. Early Sumac and Leoti Red meet the requirements for forage farther west.

It is generally recognized that the greatest need for Kansas agriculture is greater stability, and that one of the greatest stabilizing influences would be a constant and adequate feed supply for livestock. The sorghums can do more than all other crops combined to meet this need if they are used to the greatest advantage.



Combining Wheatland that was planted with the grain drill. Development of combine types of grain sorghums has stimulated interest in this valuable feed.



## TO KANSAS FARMERS

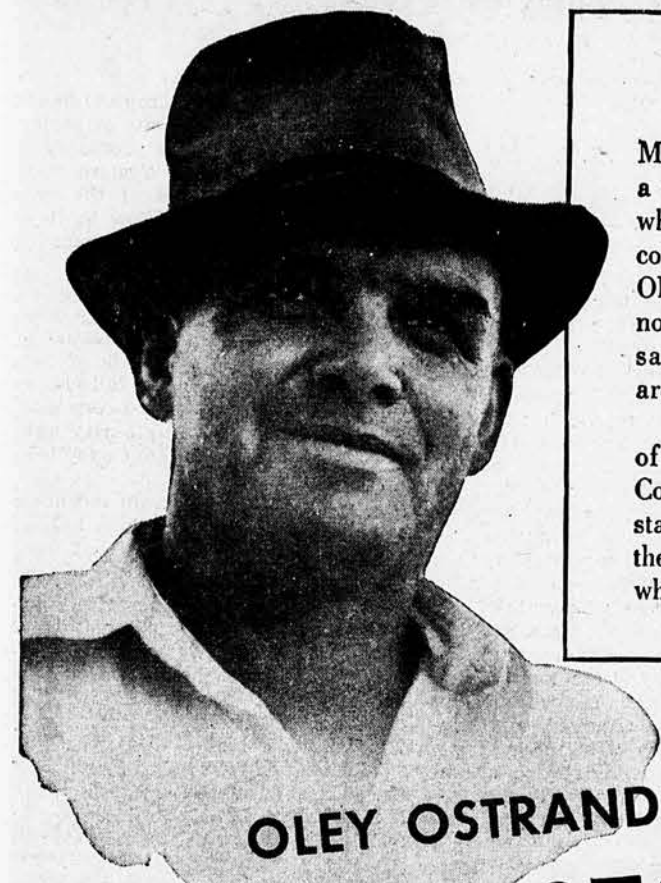
Maybe you think it's a long jump from a vast, wind-rippled field of growing wheat to a grocery store. But up-and-coming American wheat producers like Oley Ostrander have a different slant nowadays. This interview I got in Kansas, world-famous wheat producing area, makes that plain.

Oley Ostrander is acknowledged one of the best wheat farmers in Sumner County, a leading wheat county of the state of Kansas. Born and raised in these parts, Oley started working in the wheat when he was 9. He leased an 80-

acre farm when he was 22 and ever since he has been on his own. Today Oley operates a 1200-acre wheat and stock ranch near Wellington, Kansas. This year, from a 700-acre planting, he harvested better than 18,000 bushels of wheat. That's an average yield of more than 25 bushels to the acre and a record for a grower to be proud of anywhere in the wheat belt.

Mr. Ostrander read over and approved everything I've written here about his methods and his thinking —

YOUR SAFEWAY FARM REPORTER



# OLEY OSTRANDER of Kansas tells how SAFEWAY STORES PUSH WHEAT

"There isn't much a wheat farmer can do about selling his own product," Oley Ostrander told me. "We're too far out of the market — too busy producing. Yet I know wheat has to compete for people's attention just like other foods and I appreciate the fine job Safeway does in boosting wheat products."

"At our end of this wheat business we Kansas farmers have found it pays to use up-to-date methods. On my own place, for instance, we follow up the combine with a one-way machine to pulverize the soil. And by mold-boarding and cultivating at least three times in summer we keep the soil fine and weed-free."

"All of our seed is graded and fanned to insure an even stand. I use semi-deep furrow drills and plant in ridges 3 to 4 inches deep, so the land holds moisture."

"But after harvesting a crop of wheat, we farmers have got to look to others to turn our wheat into products that the public will pay money for — and to tell about wheat's values. Wheat needs good selling — not only to increase demand but to hold its markets."

"I've noticed that Safeway stores use up-to-date methods to sell wheat just like I do to produce it. They offer the public good wheat products at money-saving prices. And by constant promotion — advertising and store display — they push wheat day in and day out."

"That's why I think of the Safeway people as a sort of partner of mine — because good selling like they give wheat is what we producers need more than anything else."

THE SAFEWAY FARM REPORTER



The Ostrander boys—Lauren, 13, and Thomas, 16—are a real help to their folks. Tom is doing the trucking for his dad and Lauren, just starting high school, helps around the ranch in many ways



An expert home manager, Mrs. Velma Ostrander tends a fine vegetable and flower garden, too. A regular customer at her Safeway store in Wellington, she says: "We produce our wheat in an up-to-date, efficient way and that's how Safeway sells wheat—so naturally we get along in friendly fashion"

A huge quantity of Kansas wheat is moved into consumption by Safeway stores in ready-to-use forms like these, Oley Ostrander points out. "It does me good to see the strong selling effort Safeway puts behind quality wheat products like Julia Lee Wright's Bread and Kitchen Craft Flour," Mr. Ostrander says. "Advertising like Safeway's, and their store displays, are a big help in keeping people mindful of wheat"

With plenty of rich pasture land and winter feed, Oley Ostrander has found livestock profitable. Right now he has 55 head of white-faced Hereford breeding cows and 50 breeding ewes. Most years he gets close to a 100% calf crop from his herd





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Be sure to ask your Skelly Tank Wagon Man about Skelly's 20th Anniversary Pool-Car Sale right away. Just to make certain, why not call him up and tell him to stop by before the sale closes on November 30th! Now's the time to save with Skelly!

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Lawrence, Kansas—November 3, 1939

## Try a Legume Tonic

For Best Success With Corn

By R. I. THROCKMORTON, Agronomist  
 Kansas State College

CORN production is attempted virtually every year in all sections of Kansas, but high temperatures and lack of rainfall make it extremely hazardous in Central and Western Kansas, except on the better soils along the northern border.

When the soils were virgin and high in organic matter, nitrogen, and water-absorbing capacity, it was not necessary to give consideration to rotations for corn production. No special treatment was necessary in preparing the land for planting. Crop production and the accompanying tillage of the soil, however, have taken a heavy toll thru the removal of food materials by plants, the destruction of organic matter by oxidation, and the loss of surface soil by erosion. Because of the losses which have occurred, corn can no longer be grown with the greatest degree of success unless it is grown in rotation with crops that will aid in increasing the organic and nitrogen content of the soil.

Where sorghum will produce a more successful crop than will corn, because of its ability to withstand more adverse conditions, corn should not be grown except to a limited extent. Corn has its best adaptation in Kansas in the northeast corner of the state. It can, however, be grown successfully, and frequently to better advantage, than can the grain sorghums on most of the bottom lands and better upland soils thru Eastern and extreme Northern Kansas. Corn is one of the least desirable crops to grow on the rolling to hilly upland soils because it encourages soil erosion.

### Rapid Loss of Nitrogen

A good rotation is especially important in growing corn because the yields tend to decrease rapidly when corn is produced year after year on the same land. Rapid declines in yields of corn under continuous production are due largely to the rapid loss of nitrogen and organic matter and to the accelerated erosion which accompany frequent tillage. The use of a good rotation results in higher yields, easier control of weeds and insects, and a better physical condition of the soil. A rotation for corn should contain a legume to aid in maintaining the nitrogen content of the soil and also a small grain crop to aid in controlling certain weeds and to aid in checking erosion losses during the period of the rotation.

Harold E. Staadt, Ottawa, a successful corn grower, gives the requirements for corn production in the following brief statements: Fertile soil, good seed of an adapted variety, and good tillage are the necessary attributes of high corn yields. A rotation of corn, oats, and alfalfa or Sweet clover

has proved effective in providing the necessary plant food materials and in assisting to eliminate plant diseases and prevent weed infestation.

Mr. Staadt grows corn on heavy bottom land soils and prefers to plow for the crop during February or March. He cultivates thoroly, previous to planting with the surface planter, using disk furrow openers.

On the Agronomy Farm of the Kansas Agricultural Experiment Station the average yield of corn from 1911 to 1938 was 28 bushels an acre when corn was grown in rotation with alfalfa and wheat, 21.8 bushels when grown in rotation with wheat, and only 17.3 bushels when corn was grown continuously. Soybeans and cowpeas are much less effective than alfalfa, Red clover and Sweet clover in maintaining the yields of corn.

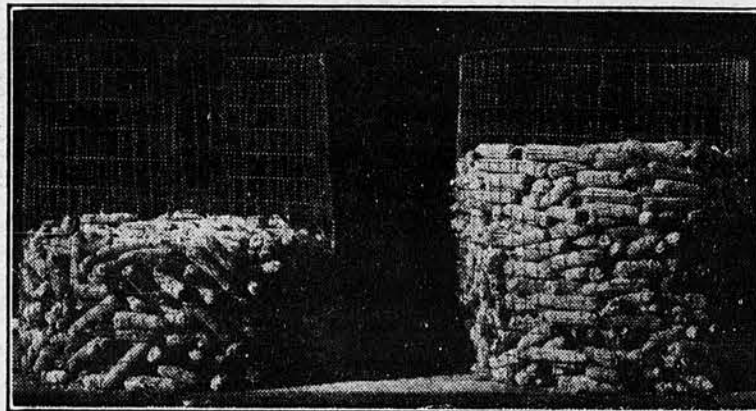
When corn follows alfalfa or one of the clovers in a rotation system, the land should preferably be plowed in the fall in order that as much moisture as possible may be stored in the soil. This method may be used effectively when there is ample fall, winter, and spring precipitation and on areas where drouth is not a common factor in corn production. Under other conditions the alfalfa or clover should be followed by a small grain crop as wheat, oats, or flax, and corn should then follow the small grain crop.

### Time to Restore Moisture

This sequence of crops is desirable because the alfalfa and Sweet clover deplete the subsoil of moisture and make conditions favorable for the development of a high nitrate content of the soil and this combination frequently results in the loss of a corn crop by "firing." The small grains are not especially subject to injury under such conditions and can usually be grown successfully. The time elapsing between harvesting a small grain crop and planting corn the following spring will offer an opportunity to restore the supply of subsoil moisture. The sorghums, especially those grown for forage, may be used successfully between the legume and corn crops.

On most soils the first preparation of land for corn should take place in the fall. In those sections where the crop is surface planted the land should be fall plowed and the soil should be cultivated sufficiently in the spring previous to planting to destroy all weeds and form a finely pulverized surface layer. When the crop is to be planted with the lister, the land should be blank-listed on the contour in the fall, the field should be cultivated sufficiently in the spring to destroy all weeds, and the crop should be planted by nosing out the old furrows. When fall listing is

(Continued on Page 34)



It pays to grow corn in rotation with legumes. Above at left, corn from one-tenth acre which is planted to corn year after year. Right, corn from one-tenth acre where the crop is grown in rotation with alfalfa and wheat.



# Corn Made to Order

## One-Fourth of U. S. Crop Is Hybrid

By R. W. JUGENHEIMER

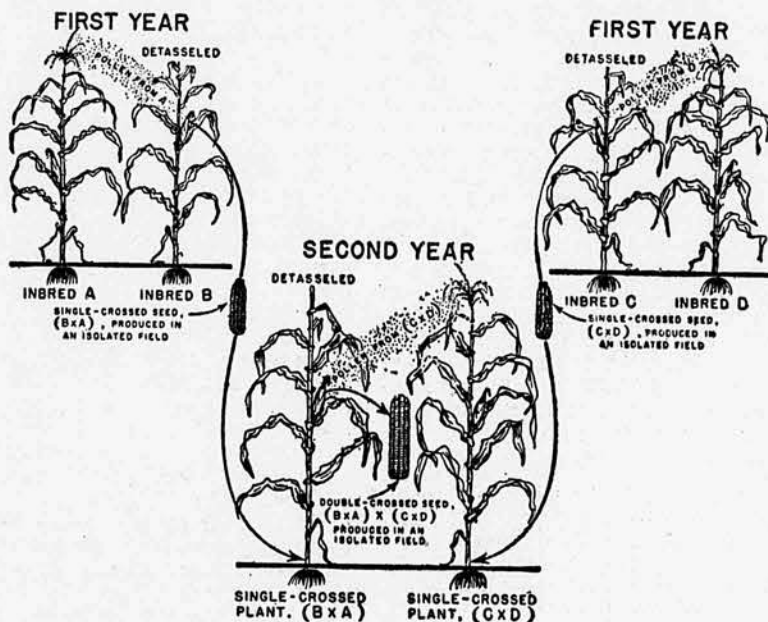
Mr. Jugenheimer is Associate Agronomist, Division of Cereal Crops and Diseases, Bureau of Plant Industry, U. S. Department of Agriculture, in charge of co-operative corn investigations in Kansas.

HAD G. H. Shull, who more than 30 years ago first reported increased yields from hybrid corn, obtained a monopoly on hybrid seed corn paying him only 1 cent for each acre in the United States planted with hybrid seed, he would have received about \$250,000 for his 1939 dividend. Almost unknown to the average corn grower a few years ago, hybrid corn was planted this year on about 25 million acres in the 13 Corn Belt states. This was about 1/4 of the nation's total corn acreage.

Hybrid corn is perhaps one of the greatest single steps forward ever to occur in agriculture. Prior to the development of hybrid corn, the principal accomplishment in corn during the 4 1/2 centuries since America was discovered, was the development of the present dent varieties.

Altho being grown so widely, a great amount of mystery still surrounds hybrid corn. Contrary to popular belief, hybrid corn is not a cross between standard varieties. Hybrid corn may be thought of as corn "made to order." In the development of hybrid corn, the best standard varieties are literally taken to pieces by the corn breeder and reassembled. The inferior heredity is discarded and new plants are created from the best inheritance contained in the regular varieties.

Hybrid seed corn is produced by crossing selected inbred lines. These inbred lines are the "building materials" of the corn breeder. They are of little value in themselves, for they are inferior to open-pollinated varieties in vigor and yield. When 2 unrelated inbred lines are crossed, however, the vigor is restored. The better hybrid combinations among selected inbred



This diagram shows the method of producing single and double crosses of hybrid corn.

bred lines involved. The simplest hybrid, known as a single cross, is made by crossing 2 inbred lines. Most hybrid corn is "double cross," a hybrid produced by crossing 2 single crosses.

Some hybrids may yield twice as much as others grown under the same conditions. Exactly 752 hybrids and 19 open-pollinated varieties were compared by the Kansas Corn Project at Manhattan in 1938. Altho all of these were grown under similar conditions, yields varied from 15 to 70 bushels an acre. Differences in other characteristics were fully as striking.

Hybrids differ markedly in their ability to withstand storms. Some hybrids lodge because of weak stalks and others because of weak roots. Little

clearly between drouth-resistance and drouth-escape. Drouth-escape is attempted by planting the crop at such a time that it will miss most of the hot weather. Since the extremely hot, dry periods do not always occur at the same time, year after year, this practice is only partly successful. Various strains of corn, however, when grown under the same environmental conditions, may be damaged in widely different degrees by drouth. Such differences, when due to the nature of the plants themselves, are called differences in resistance or susceptibility.

### Hybrids Are Different

I have in mind 2 hybrids which differ in drouth-resistance. Both hybrids are of equal maturity and were grown side by side. After firing badly the drouth-susceptible cross yielded 27.5 bushels an acre, while the other hybrid did not fire and yielded 65.5 bushels an acre. It required 515 ears of the drouth-susceptible hybrid to weigh 100 pounds, whereas only 155 ears of the resistant hybrid weighed 100 pounds.

Corn is attacked by many diseases. Corn smut and Diplodia dry rot are 2 of the most serious diseases of corn in Kansas. Since it has been found impossible to control the ravages of corn smut by methods commonly applied to other cereal smuts, breeding for resistance appears to be the most

promising means of control. Inbred lines of corn differ in resistance to disease. This makes it possible for corn breeders to produce corn hybrids which are much more resistant to disease than are open-pollinated varieties.

Diplodia dry rot is best known as an ear rot of corn since it is one of the most serious of the white molds commonly seen on the ear. This disease, however, also occurs on the roots, stalk and shank of the corn plant. In fact, it is responsible for a great amount of lodging of stalks and dropping of ears. Inbred lines of corn differ in resistance to Diplodia. In order to select the resistant lines, many thousands of artificial inoculations have been made by corn breeders during the last few years.

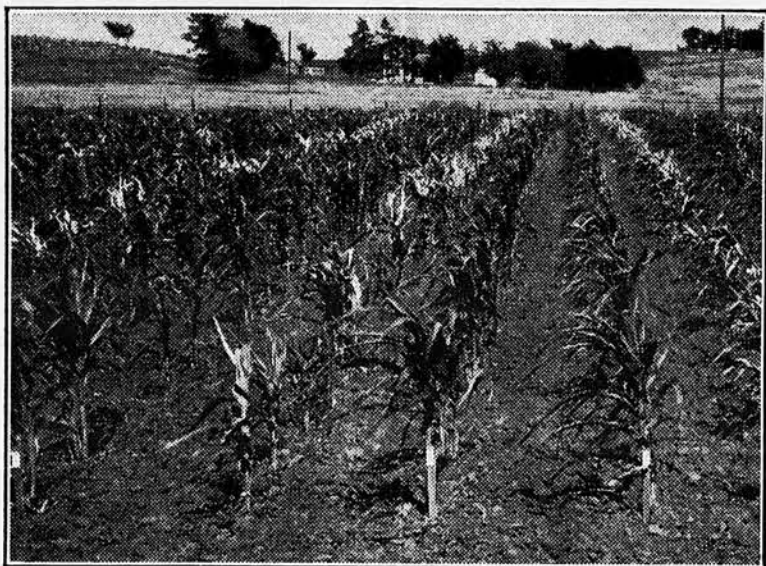
Breeding for resistance to insects must be included in a balanced corn improvement program. Outstanding differences in resistance of corn strains to chinch bugs, grasshoppers, corn ear worm and grub worms have been noted in the Kansas breeding material.

### Job Requires 2 Weeks

Hybrid seed corn is produced commercially by growing the selected parent strains to be crossed in alternate blocks in a plot isolated from other corn. In these crossing plots the parent which supplies the pollen is called the male or pollen parent and the one detasseled is called the female or seed parent. All tassels must be removed from the female rows before they have shed any pollen. This is necessary in order that the resulting ears from these plants will be a cross between the ear-producing parent and the desired pollen parent. Every seed field must be gone over every day until detasseling is completed. This usually requires about 2 weeks. Hybrid corn detasseled only once or twice is almost sure to perform poorly. Proper isolation from other corn is an essential practice. Harvesting must be done so as to prevent mixing of ears from the detasseled rows with ears from the tasselled rows, and all seed sold must come from the detasseled rows.

Not all corn hybrids are desirable for use in Kansas, altho some hybrids appear to be promising. Many others, however, are much inferior to the local varieties. The rather remarkable records made by some hybrids in yield tests have created a considerable demand for hybrid seed corn. Consequently, seed has been offered as hybrid which either is not hybrid at all or not of proved superiority.

One or two year's results do not prove the superiority of any hybrid. (Continued on Page 35)



This corn shows the difference in drouth resistance between two strains grown on college land at Manhattan this season. The drouth-susceptible strain was planted every third row across the field as white tops indicate.

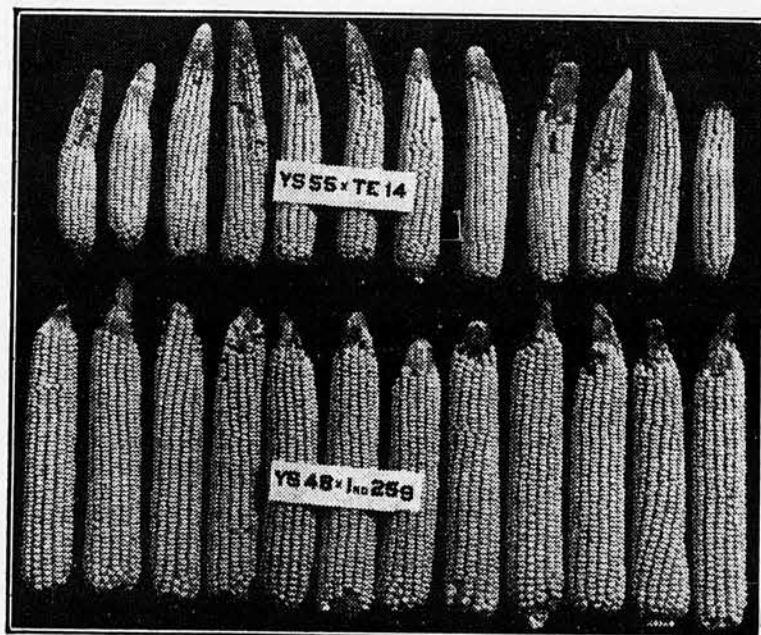
lines also give substantial increases in yield over the better varieties. Other desirable characteristics, such as strength of stalks, freedom from specific diseases, and heat and drouth resistance, are advantages which some of these hybrids possess. Not all hybrids are worthwhile, however, for some are much less desirable than the average standard variety. In order to produce a satisfactory hybrid, the corn breeder must test a large number of hybrids involving his outstanding inbred lines. When a desirable combination is found, it can be expected to perform in the same way each time it is produced if it is grown under similar environmental conditions.

Several kinds of hybrids are possible, depending upon the number of in-

lodging occurs in some seasons, and under such conditions it is not possible to recognize lodge-resistant strains. Devices have been developed for testing the breaking strength of the stalks and the pulling resistance of the roots. These devices provide a means of testing the hybrids independently of storms.

Fortunately, strains of corn differ in their ability to withstand drouth. Another task of the corn breeder, therefore, is to produce and select the strains with the most resistance to drouth. Relatively cool temperatures cause some strains to fire badly. Other strains growing alongside remain green thru unbelievable severe periods of drouth.

Many persons do not differentiate



Hybrids differ in drouth resistance. Top and bottom rows of corn shown here are of equal maturity, grown side by side. After firing badly, upper cross yielded 27.5 bushels an acre, while lower hybrid did not fire, and made 65.5 bushels an acre.





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Proverbial Ostrich

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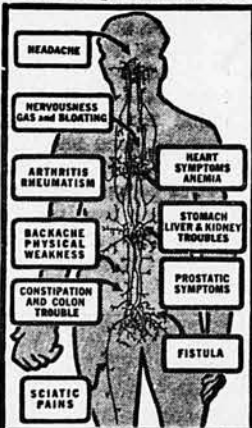
You need a copy of this book if you are a sufferer from hemorrhoids (piles), fistula, or other non-malignant rectal ailments. It will help you to understand your case. It may save you from costly error—from treatment that is too drastic, from needless pain, suffering or worry.

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As the chart shows, rectal troubles not only may develop into serious stages—perhaps malignant and incurable—but also may be the concealed companion of other ailments: headache; liver, bladder or kidney trouble; indigestion; anemia; nervousness. Where these are "reflex symptoms," they naturally are relieved when the rectal difficulty is cleared away. Get the facts, now; face them seriously and sensibly. Mail coupon for free book and reference list.



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If you desire any further information, write us a personal letter, and it will receive prompt attention.

## Corn Enemy Is Outwitted

By E. G. KELLY

WHETHER the chief enemy of corn is chinch bugs or grasshoppers depends on the section of the state where the corn is grown. Down in the Eastern section, where the chinch bugs are bad so many more years than the grasshoppers, farmers believe the chinch bug should have first rating. Out in the Central and Northern sections, everyone will rate the grasshopper as number "1" enemy of corn. We shall let the argument stand right there, for these 2 bugs do plenty of damage to corn when the weather is right and they have the opportunity.

If one will look over the state reports on the average of corn back in 1932, when corn had about reached its peak in acreage, and then study the gradual decrease until 1939, he will begin figuring on the causes for the decrease. For your convenience, here are the corn acreages:

Year	Acreage	Average bushels Per acre
1932.....	7,362,000	19.0
1933.....	6,994,000	11.5
1934.....	3,777,000	3.5
1935.....	4,380,000	9.0
1936.....	2,759,000	4.0
1937.....	3,228,000	16.5
1938.....	2,260,000	20.0
1939.....	3,094,000	20.0

The Crop Insurance division of the Agricultural Adjustment Administration suggests that there are several causes for wheat crop losses. They list "drouth" and "floods" as possibly being responsible for 75 per cent, and bugs and diseases the other 25 per cent of crop losses. The causes of corn losses probably would be nearly the same.

In 1932 and 1933 there were very few grasshoppers in Kansas, and the corn yields were on the average quite high. In 1934 there were hordes of 'hoppers in wheat and also in corn, and the damage was enormous. In 1935 there

were plenty of grasshoppers early in the spring, but timely rains prevented them from injuring corn. Everyone will remember what happened in 1936 when the drouth hit in late May and early June. The grasshoppers pounced upon all kinds of crops and especially corn. Practically no one was expecting such hordes of grasshoppers and very few farmers were ready to combat them. The devastation was probably the greatest that has ever occurred in Kansas.

In 1937 the farmers were ready to combat grasshoppers when the pests arrived, and thus saved a lot of corn. Again in 1938 the farmers were ready with good methods of control, and again they reduced the damage.

When one studies the statistics of corn acreage since 1932 and notes that around 4 million acres have been changed to other crops or left idle, and when one at the same time remembers the hordes of grasshoppers that have devastated the corn, he might believe that grasshoppers were responsible for much of that reduction in corn acreage. In fact, if one discussed this situation with farmers of the Western two-thirds of the state a year or two ago, he soon learned that they had quit planting corn because of grasshoppers.

By a further study one may note that corn increased nearly a million acres in 1939 despite the drouth and the grasshoppers. If one will consult farmers in the North-Central sections of the state now, he will find these farmers have learned to control grasshoppers and will continue to shift back to corn. The devastation of corn by grasshoppers in 1939 was materially reduced by timely planting and by liberal and correct use of poison bait.

## Try a Legume Tonic

(Continued from Page 32)

not practiced and the crop is to be planted with the lister the soil should be thoroly disked in the spring previous to planting. The best time to cultivate corn is previous to planting the crop. This is usually the easiest and least expensive time to destroy weeds.

The best method of planting corn in one section of Kansas may be a poor method for another section. In those sections where the soil is frequently wet and cold in the spring and on extremely heavy soils, surface planting is desirable. This method results in quick germination of the seed and a rapid early growth of the plants which facilitates early cultivation and weed control. This method is applicable to many soils in East Central and Southeast Kansas and on some of the bottom land soils in the northeast portion of the state. In other sections of the eastern portion of the state one of the best methods of planting is with furrow openers on the surface planter. Listing in general is not a satisfactory method of planting corn in the eastern 1/4 of Kansas because of the danger of heavy rains burying the young plants with soil and because of poor germination resulting in uneven stands.

On sloping and rolling lands, all planting should be done on the contour to aid in checking soil erosion. Check rowing is an excellent practice and should be used under all conditions where topographic conditions permit and the surface planter is used because it facilitates weed control.

The rate of planting corn, and therefore the thickness of the stand, has much influence on the possibility of producing a satisfactory crop as moisture is frequently the limiting factor. Under the more favorable conditions in Eastern Kansas the stand should average not more than 1 plant to every 15 inches in the row. Where conditions are somewhat less favorable the stand should not exceed more than 1 plant to

each 18 to 20 inches. In the corn growing section of Central Kansas the stand should not exceed one plant to every 22 to 24 inches.

As has been stated, the best time to cultivate corn is before the crop is planted. Cultivation at this time results in the destruction of weeds in the seedling stage and thus prevents them from competing with the corn plants. The first cultivation of corn should take place as soon as possible after the weed seeds germinate. The spike-tooth or smoothing harrow can usually be used to good advantage at this time. Subsequent cultivation should be frequent enough to destroy all weed growth and to keep the surface soil in good condition to absorb moisture. Timely cultivation is more important than frequency of cultivation. As long as the soil is free of weeds and sufficiently open to permit ready penetration of moisture, nothing will be gained by additional tillage.

Insofar as is consistent with weed control, corn land should not be cultivated deep. This is especially important after the plants have made a growth of 18 or 20 inches. Deep cultivation at this stage in the development of the plants results in root pruning and thus the plants may not be able to make full use of surface soil moisture and plant food materials.



"Pardon me, your tail's on my piece o' corn! Would you mind giving it a half wag?"

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YEAR IN AND YEAR OUT

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Big Mill Performance with Small "Baby" Tractors! Study the facts and you'll get a Letz. Avoid winter work by successfully and safely storing cured hay and fodder crops for months ahead.

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# Inside Facts on ANIMAL BREEDING

## No. 4. Genes Not Blood Are Transmitted

By D. M. SEATH

LIVESTOCK breeders commonly describe the relationship to a famous animal as a certain percentage of the blood of that animal. For example, a son of a great sire is said to carry 50 per cent of his blood. Likewise, a calf produced by mating a daughter back to the sire (inbreeding) would carry 75 per cent of his blood.

Strictly speaking, the young never carry the same blood as either the dam or the sire. The embryo in its development receives nourishment from the mother but it actually manufactures its own blood.

Rather than carry the same blood, the offspring carries a sample of the same hereditary material, called genes, that the parents have. The daughter, or son, receives 50 per cent of its genes from the sire and 50 per cent from the dam. This hereditary material is transmitted from the parents to the new offspring via the germ cells.

Male germ cell is called a spermatozoon, and the female cell, the ovum or egg. The egg not only contains the sample of genes from the dam but also a supply of nutritive material which will be used as initial food for the embryo. The spermatozoon does not have this supply of food for the embryo, and it is therefore smaller. It functions by carrying the genes from the sire and by acting as the fertilizing agent for the ovum.

As soon as the spermatozoon pierces the wall of the egg and fertilization takes place, a new animal is in the process of development. From then on, nothing can change the hereditary material in that animal. Nature and her environmental changes may alter the development of the embryo, but they cannot change the genes it contains. Thus, the mature animal which develops from that embryo will, if it has offspring, contribute to each offspring a sample of the same genes which were joined together at the time of its own fertilization.

The sampling nature of inheritance makes for a great deal of variation in livestock breeding. If this were not true, full sisters or full brothers would always be exactly alike. As it is, the only time full sisters or full brothers are exactly alike is when they are identical twins, each pair resulting from the division of a fertilized egg.

Other cases where sets of brothers or sisters are almost identical are found when the parents are almost pure in the germ cells they carry. In such cases, it makes little difference which samples of genes (chance dictates) are passed on to the new offspring.

Unfortunately, livestock men do not have many strains, or individuals within strains, that are this pure in their inheritance. Individuals that are on an average pure enough in their inheritance, so that they do more uniformly pass on good genes to their offspring than do the average animals of their breed, are held in high esteem by livestock breeders.

Sires or dams that have outstanding offspring have proved they have the ability to pass on superior inheritance and are spoken of as proved sires or as proved brood cows. Perpetuation of their genes (not blood) contributes to greater livestock improvement.

—KF—

### Twin Brothers Win

A Saline county team, composed of Norman and Julian Sundgren, twin brothers, and George Bearness, won

the livestock judging contest at the annual Kansas 4-H Club Fat Stock Show in Wichita recently. The winning trio outpointed 34 other teams. It represented Kansas in the judging contest at the American Royal and will go to the International Livestock Exposition in Chicago late in November.

—KF—

### Corn Made to Order

(Continued from Page 33)

Until the local adaptation and consistent superiority of specific hybrids have been established by careful trial thru several years, the Kansas Experiment Station has suggested that farmers plant standard adapted varieties in their main fields and that they try a few acres of several different hybrids. As a result, many small plots of hybrid corn were planted in Kansas this year. The farmers who planted these plots should compare the hy-

brids and the local corn for stiffness of stalk, strength of root system, resistance to smut and other corn diseases, resistance to chinch bugs and other insects, and, of course, yield of grain and fodder. Reliable comparisons can be made only if the hybrid and the local variety were planted on the same day, side by side on comparable soil, have similar stand, and have been treated the same during the year.

A considerable number of Kansas farmers planted some hybrid corn this past season. Some of these fields of hybrid corn appear to be better than the standard open-pollinated varieties. Others, however, are proving to be inferior to the local varieties. The rather remarkable records made by some corn hybrids have created considerable demand for seed of these specific combinations. Owners of good fields of hybrid corn have been tempted to select seed for their own use or for sale to their neighbors. The question naturally arises as to whether or not this is a desirable practice.

The crop grown from commercial hybrid seed corn should not be used as seed the following year. Numerous tests in many places have shown that seed from this advanced generation is likely to yield from 10 to 20 per cent less grain than that from newly crossed hybrid seed. The results of some experiments in Ohio showed that the decreased yield varied from 5 to 24 per cent, depending upon the specific hy-

brid. On the average, however, the second generation seed yielded 15 per cent less than that from the newly crossed seed.

Seed saved from a field of hybrid corn may look fine, germinate well, and produce a field of fine looking plants, but the yield will be disappointing. The original hybrid seed was a cross between specific parents. Seed from a hybrid field is to a greater or less extent inbred. This tends to reduce the yield of the resultant crop.

Experimental evidence has shown that the crop grown from commercial hybrid seed corn should not be used as seed the following year. Legislation passed by the last Kansas legislature forbids the sale of such seed corn as hybrid. Individuals who sell such seed, labeled as hybrid, are subject to a fine or imprisonment.

The adaptation of a hybrid does not depend upon the place where the seed was produced. Unadapted open-pollinated varieties can be brought to Kansas and by selection over a period of years may be acclimated to local conditions. This is not true of hybrids. A hybrid is a combination of certain inbred lines. It is the same combination regardless of where produced. The important thing is to know whether the combination is suited to the location and conditions where the crop is to be grown. Therefore, the adaptation of a specific hybrid can be known only after several years of actual test.



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With Model B Power, life on the farm is different. You can tell it by the look on Dad's face, the lines of worry and fatigue gone. You can tell it by the new pride of the whole family in cleaner-cultivated crops, in soil building and soil saving, in more paying livestock, in a neater farmstead and a happier home. FREEDOM makes the difference! Freedom from the drudgery and obsolete methods of horse farming . . . brought to you by the Model B power outfit replacing 4 to 6 horses . . . for no more than the cost of horse-drawn equipment! Farm in daylight! Snuff out your lantern! Be free with the Champion of Freedom . . . the Model B!

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# CORN HUSKING!

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of  
Kansas

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## NATIONAL CORN HUSKING CHAMPIONSHIP!

(With contestants from Eleven State  
Eliminations going into action on the  
F. H. Leonhard Farm near Lawrence,  
Kansas, in Douglas County.)



E. H. Curtis



Gene Shipley



Hilton Hodges

**Announcers: Curtis, Shipley, Hodges handle the portable microphones, assisted further by Charlie Stookey, the Columbia Network's "Farm Journal" Reporter!**

*It's the World's Biggest  
Rural Sporting Event!*

**November 3 . . . Friday . . . 11:30 a. m.**

## Chinch Bugs Ready for 1940

By E. G. KELLY, K. S. C.  
Entomology Extension Specialist

**F**ORTUNATELY for the corn growers in Eastern and Central Kansas, the chinch bugs have been scarce during the last 4 years. But they are on the increase and will have to be set back again. Many farmers know the bugs increase and become destructive for a few years, and that it then requires constant fighting to check them. Then favorable weather aids in reducing the chinch bug hazard for a time.

In 1935, there were plenty of chinch bugs in most Eastern Kansas counties and over in Missouri. Several hundred miles of creosote-cyanide barriers were built to catch hundreds of bushels of the bugs as they moved from the small grain to corn. The corn was not damaged and the bugs were not left to scatter to cane and kafir fields. The weather in the fall and winter of 1935 assisted the farmers, and so the bugs were scarce from then until the summer of 1939. Now, the farmers will have to assist the weather again.

### Hold Them in Check

There are a few fundamental farming operations that will aid nature in holding the chinch bugs in check, and we have found Kansas farmers ready to co-operate. The farmers have learned that certain crops like barley, wheat and Sudan grass are favorable crops for the increase of chinch bugs. It is true that barley may sometimes grow to maturity and be ready for harvest before the bugs injure the crop. That is not often true, but it can happen. But if the bugs are allowed to grow in the barley or thin wheat, they will surely move to the nearest cornfield.

Kansas farmers have learned to be careful in planning rotations of these various crops and to be careful in selecting the fields where corn is to be planted. They are planting corn as far from barley and wheat as the size of the farm will allow, and they are also taking into consideration the plantings

of their neighbors. It has been learned by grim experience that chinch bugs will mature in corn and move to sorghums in late July and August, and that is where so many bugs were seen this last fall. The bugs are now in grass for the winter.

Yes, the bugs are well-covered by the tall grass that grew in August. The bluestem and other clump-forming grasses are well-filled with bugs right now. These bugs will live right there until spring, and then they will move out to barley and wheat. There is not much use trying to clean out the bugs this winter, but there will be much profit made by carefully planning the rotation of crops in 1940. Plant more legumes and some flax where adapted in the rotation instead of barley.

### It's a Neighborhood Job

The better growers will plan for creosote-cyanide barriers between wheat or barley and the corn. I would like so much to make a suggestion here and see whether it can be worked out by neighborly farmers. The suggestion is for every farmer who finds his barley, wheat or oats filled with young red bugs in May to build and maintain a good creosote-cyanide barrier until he catches all of the bugs. The barrier may have to be built to catch the bugs which would go across the line fence into a neighbor's corn, but that should not make any difference; the bugs ought to be caught. If the bugs are allowed to cross the line fence and mature on the neighbor's corn, they may fly right back home to infest the cane, Sudan, or kafir.

The chinch bug has been the No. 1 enemy of corn since Kansas was first settled. It has destroyed many thousands of acres of this valuable crop; and now, with modern methods of farming and good cropping systems, there is little need for the devastation to continue.

## Valuable Help for Readers

**H**ERE is the big National Corn Husking Contest issue of Kansas Farmer; it comes a few days early. And here's something of double value for all who plan to be at this contest on November 3.

Many of the advertisers in these pages will have exhibits on the field adjacent to the Contest Field. All types of farm machinery will be shown, food exhibits, feeds, radios, and other items will all be a part of the big show on November 1, 2, and 3. You can get a good first-hand view of many advertised products. However, there still is quite an amount of information that you will miss. To obtain all necessary data on any product advertised in this issue, then, send for the literature that is offered by advertisers. It will give you a clearer picture and help with your next purchases.

Use this list to help you send for your booklets. Mail your request directly to the address given on the advertisement:

Hog raisers will wish to know more about the use of Iodine in feeding. Use the coupon on page 48 in the ad of the Iodine Educational Bureau.

Irrigation is gaining in every section of Kansas. It's time now to learn about pumps. Send for the Western catalog advertised on page 48.

Here's a chance to own a farm. V. E. Stephens has an ad on page 48 which many will find interesting. Why not send for his literature?

There are still half a million horses in Kansas and their owners will want the Mueller Saddle and Harness catalog that is offered on page 48.

Minneapolis-Moline's big 2-page ad-

vertisement on pages 28 and 29 should arouse a great deal of curiosity. Use the coupon at the bottom, check it carefully, and mail it promptly to Minneapolis. A free pencil is sent with each coupon.

The McCleary Clinic has a coupon for your use on page 34.

Every farmer with livestock on the farm, will be interested in the booklet showing the Letz Method for Storing Roughages that is offered on page 34.

No matter how many dairy cattle you own, the DeLaval Separator Company has interesting material on separators and milkers. Send the coupon on page 49 to the nearest address.

A useful crop and weather diary for yearly farm records will be sent free by the DeKalb Agricultural Association, upon your request. See their ad on page 26.

For storage of grains and feeds during the coming winter, get the complete information offered by the Butler Manufacturing Company. Use the coupon on pages 42-43.

It's getting along toward the radio listening season. A new radio would be just the thing. Get the facts about Philco farm radios with the coupon on page 20.

"Daylight Farming" is the theme of the Allis-Chalmers ad on page 35. Fill in the coupon carefully and mail it as directed.

If you can't come to the contest, says Deere and Company, we'll send you complete information about any equipment. See this ad on page 56.

So come to the contest and visit the big exhibits. And when you write to these advertisers or visit the dealer of any other, tell them you saw the ad in Kansas Farmer.



## "Ear-by-Ear" Broadcast by WIBW

ON THE scene of the gigantic National Corn Husking battle, to give vivid eye-witness descriptions to listeners thruout the Midwest, will be representatives from radio station WIBW. Three announcers and as many control engineers will wind in and out among the crowd, contestants, and exhibits, on horseback and on foot, to broadcast exactly what they see going on in this "biggest rural sporting event in the world." The broadcast will start at 11:30 a. m., November 3.

Hilton Hodges, E. H. Curtis, and Gene Shipley, prominent Midwestern radio announcers of the WIBW staff who were responsible for broadcasting the Kansas Corn Husking championship, October 26, will each be stationed at 3 origin points—2 movable points on foot and horseback and one stationary.



Hilton Hodges

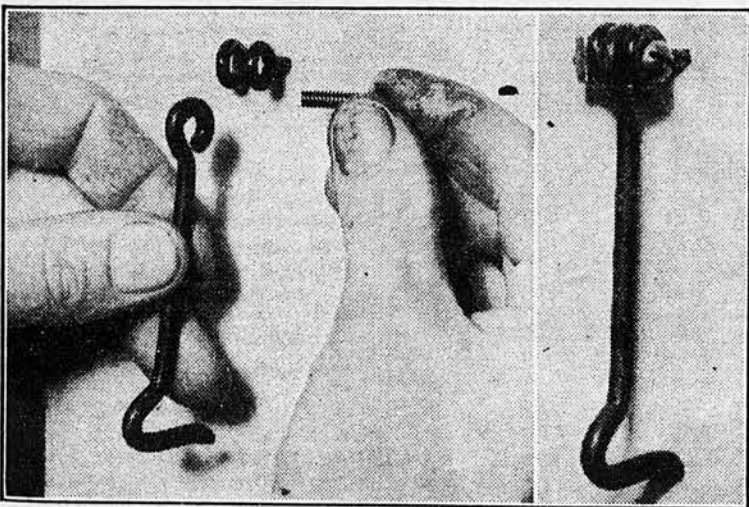
Movable units will consist of portable transmitters worn on the announcers' backs, with each transmitter giving off its own signal from a miniature antenna which extends above the announcer's head. The signal will be picked up by a stationary receiver, relayed back to the main WIBW transmitting plant in Topeka by special leased telephone lines, and broadcast to listeners via the 445-foot high antenna.

Complete coverage of the final day of the 3-day event is planned by WIBW. "Ear-by-ear" descriptions will be broadcast right from the bangboards, where it will be possible for listeners to hear the sound of the corn hitting the wagons, the crowd egging on their favorites, the new model tractors doing the pulling, and other noises attributable to an event of this kind. From this point, the announcer will switch the broadcast over a few rows of corn to the next announcer who will carry on from his vantage point—the idea being to keep the listener posted at all times on the main points of interest—where excitement and competition seems to be running the highest.



E. H. Curtis

## Prevents Swinging of Door Hook



To prevent the hook on the screen door from swinging between the frame and door as the latter closes, remove the hook from the screw eye and place it between 2 screw eyes, using a small stove bolt to hold it in place, as at left. When released the hook automatically drops down, as at right. The screw eyes should be set at such an angle that the hook will fall down straight, yet may be hooked into the eye in the frame.—Benj. Nielsen, Hamilton Co., Nebr.

Main exhibit tents will come in for their share of the radio attention as well as the official's quarters. Words from the winners and contestants will be broadcast as soon as the contest closes.

It's the "biggest rural sporting event in the world," and WIBW plans to give it the broadcasting treatment such an event deserves. Especially so, since all predictions to date point toward a record breaking contest over and above all previous ones. The corn is just right, the field is perfect, the crowd is expected to exceed any estimate heard yet, the contestants are going to be in the pink of condition and the show is about to go on!



Gene Shipley

The broadcast has been made possible thru the co-operation of WIBW with the sponsor, Kansas Farmer Mail and Breeze, and the Lawrence Chamber of Commerce, many Douglas county folks, and the State Board of Agriculture which is to make possible the all-Kansas exhibit located on the grounds.

This is the second National Corn Husking championship WIBW has broadcast. The first broadcast was held in Marshall, Mo., 1937. During that particular contest, rain fell most of the time and Hilton Hodges as well as Elmer Curtis, got plenty of electrical shocks from carrying around portable transmitters—but the show went on nevertheless with excellent success.

Likewise, in this broadcast, there were 3 origin points—a 15-foot tower platform, a tractor, and a horse. Three announcers held down their respective points and switched the program back and forth among themselves whenever excitement switched to other places.

Last year, the contest was held in Sioux Falls, S. D., which was too far away for WIBW representation—in considering Midwestern interest.

Huskers in this year's contest will work for 80 minutes without stopping for rest. Stamina, training, ability, agility, condition—all will be called upon 100 per cent for these 80 grueling minutes. WIBW is looking forward eagerly to broadcast this "biggest rural sporting event in the world." In case you can't attend in person, don't forget to snap on the radio and get sideline seats thru the medium of radio.

FOR BETTER CORN YIELDS  
—plant **SEMESAN JR.**  
TREATED SEED!



Here's what you get for 1 1/2¢ an acre:

**DOUBLE PROTECTION**—Semesan Jr. not only volatilizes, killing disease spores on the seed surface, but also coats the seed with a long-lasting film to reduce injury by soil-borne organisms.

**CONVENIENCE IN TREATING**—Use Semesan Jr. any time—days before planting, or months! Its effect lasts!

**TROUBLE-FREE PLANTING**—Semesan Jr. is finer—won't clog the treater magazine or planter.

**PLEASANTNESS**—Semesan Jr. is practically dustless. Pleasant to apply.

**SAFETY**—Properly used, Semesan Jr. is thoroughly safe to seed, as proved by many tests.

**EARLIER PLANTING**—The protection of Semesan Jr. lets you plant earlier, with better chances for a higher yield and less danger of seed decay.

**HIGHER YIELD**—By checking seed decay and reducing seedling blight, Semesan Jr. improves stands and generally increases yields. Average yield increase in 9-year tests, 4 bushels an acre!

### The Seed Corn Treatment with Outstanding Advantages

No matter where you get your seed corn—or whether it is open-pollinated or hybrid—you'll be dollars ahead to make sure it is Semesan Jr. treated. No other treatment offers, for so little money, so many advantages—advantages proved time after time in tests by crop authorities! Year after year, seed treatment with this outstanding double-acting Du Bay disinfectant will give you a firmer grip on extra profit from corn. Ask your dealer or breeder for free Semesan Jr. pamphlet. Visit the Semesan Jr. booth at the National Corn Husking Contest for free Seed Treating Chart and Blueprint Pamphlet showing how to make your own treater.

**THIS DU BAY STAMP**, or the equally well-known Du Bay Tag, should appear on all seed corn offered for sale as being Semesan Jr. treated. Look for it when you buy seed. Before ordering any hybrid seed, read the breeder's sales literature to make sure the seed is protected with Semesan Jr.



## SEED DISINFECTANTS

A TREATMENT FOR EVERY MAJOR CROP

### CHAMPIONS YEAR IN AND YEAR OUT

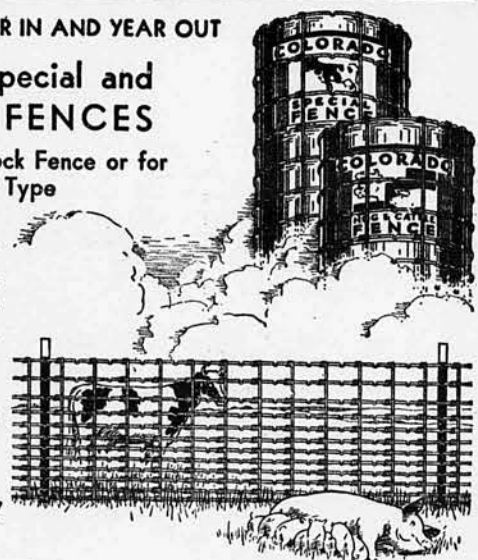
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For Medium Weight Stock Fence or for a Close Mesh Type

Full gauge, heavily galvanized, tightly woven, strong, springy—made of new billet, copper-bearing steel wire—

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Remember More Pigs Are Vaccinated With ANCHOR Serum Than Any Other Brand Made.  
We Make a Serum or Vaccine for the Prevention of Almost Every Animal Disease.  
All Products Made and Tested Under U. S. Government Supervision.

Very Low Prices on Syringes.  
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Order from the nearest ANCHOR dealer. If your local drug store does not handle ANCHOR serums and vaccines, write us.

Plant and Home Office

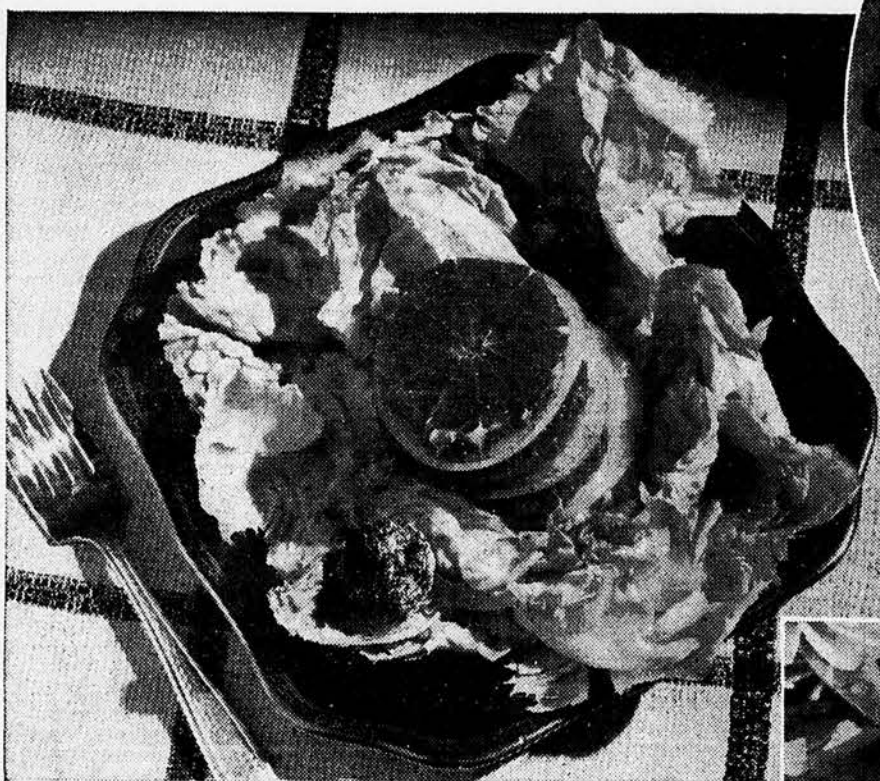
### ANCHOR SERUM COMPANY So. St. Joseph, Mo.

The World's Largest Anti-Hog Cholera Serum and Animal Vaccine Plant  
Where Quality Is Always Higher Than Price



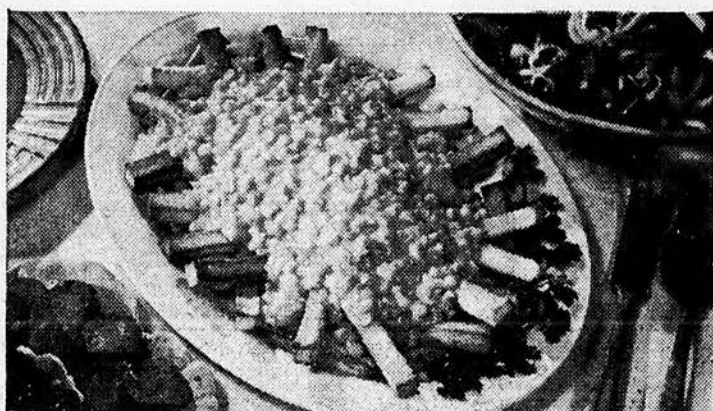
## Ruth Goodall Suggests ---

My recipes for both mayonnaise and French dressing have been handed down in our family so long they are real antiques. But I wish great-grandmother could know how good—and how economical—they are made from pure golden corn oil. She'd love this sliced orange and onion salad, too.



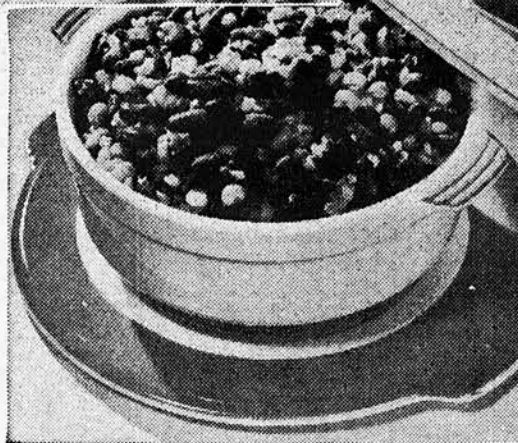
*From Breakfast*  
**EAT MORE CORN**

*Till Bed Time*

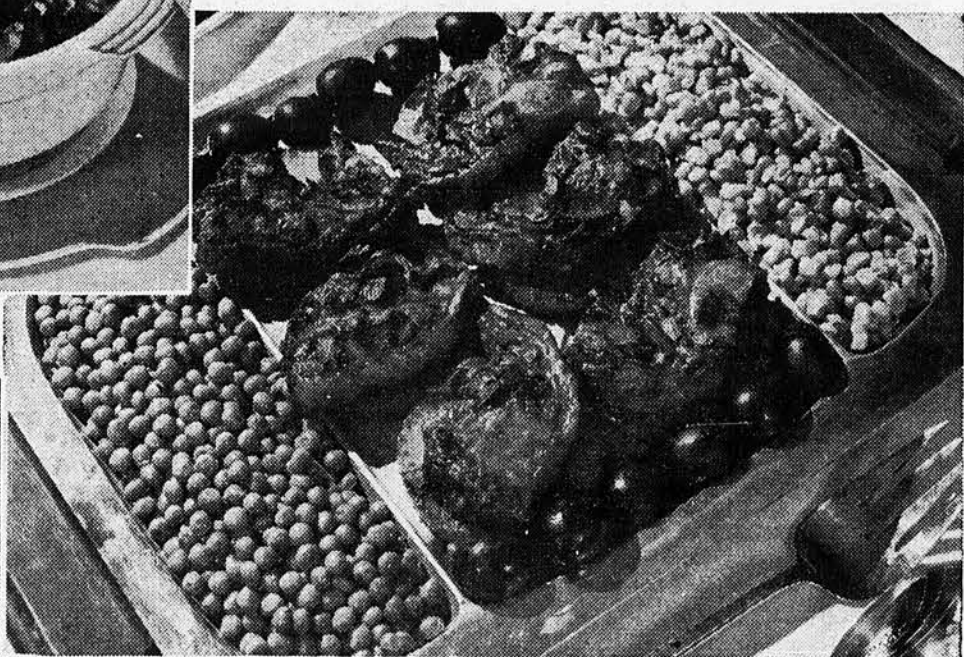
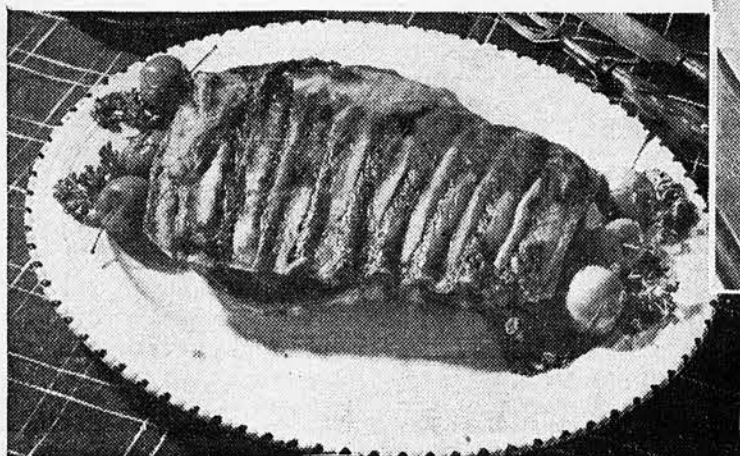


When folks drop in unexpectedly, do a little pinch-hitting, as the baseball fans say, with this Tomato and Corn Scramble (above) or with the Kidney Bean and Corn Casserole (right). That's one joy of cans in the cellar!

Below—Baked Spare Ribs with Corn Bread Dressing. Yum, yum, doesn't the very thought make your mouth water?



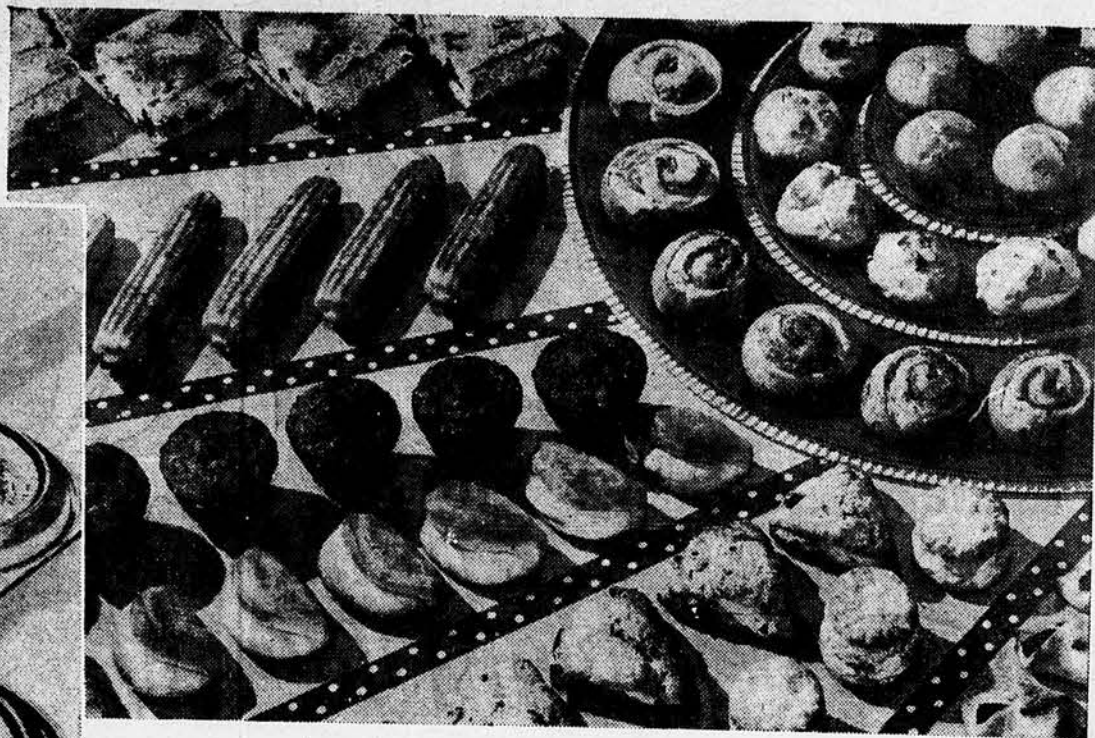
If you'd make a hit with guests and family alike, serve this Ice Cream Pie. That deep bowl pie shell is made of corn flakes and—boon to the cook—doesn't have to be baked. The ice cream filling is flecked with grated chocolate, but there are lots of possibilities.



This broiled dinner platter will make everyone at the table "hungry just to look at it." It's an easy meal to prepare, too. Brush the chops lightly with some corn oil and depend on your trusty can opener for the rest—canned corn, peas and pineapple—all go under the broiler.



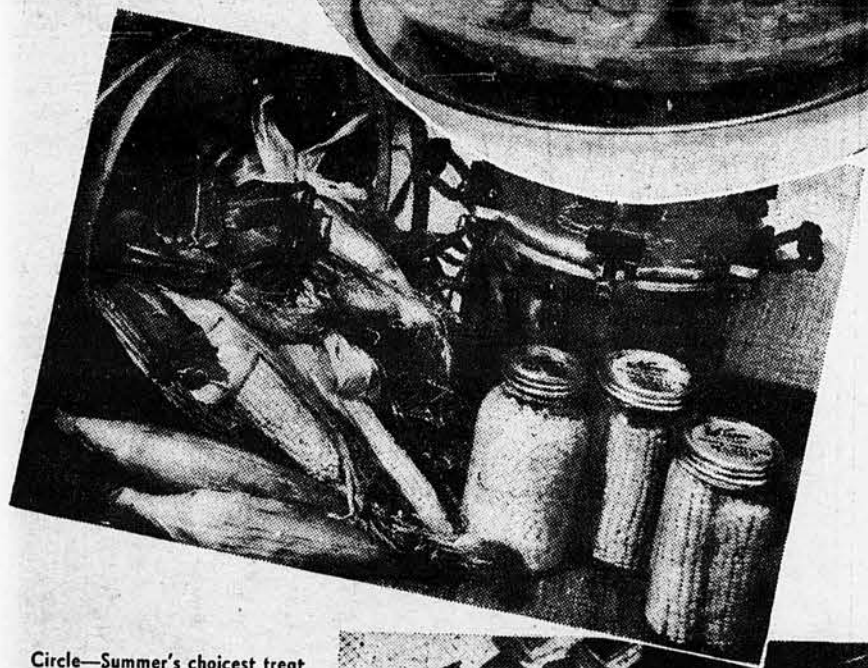
Below—As a grand starter for any day serve crisp corn flakes and cream, dressed up, according to the season, with strawberries, peaches, and prunes. They're plenty good, too, without the trimmings.



"Man doth not live by bread alone," leastwise not plain bread. Infinite varieties of hot breads are something else again, especially corn sticks and corn muffins, golden brown and so piping hot they melt the butter.

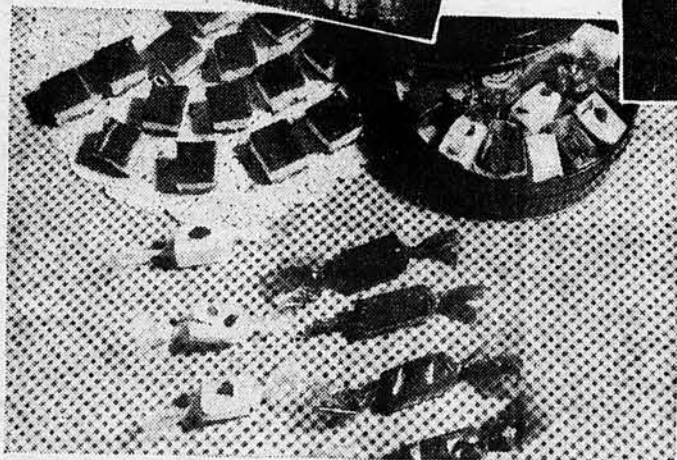


Below—Forget all about calories and sink your teeth in a piece of this Pecan Pie. Its crunchy, nut-brown, crispy top, its luscious pudding-like filling and tender flaky crust, make it an all-American favorite. Corn oil shortening in the crust; corn sirup flavors the filling.



Circle—Summer's choicest treat—corn on the cob with lots of butter. And it's fun to watch it cook in this glass kettle.

Above—Straight from the garden into glass jars, with no time lost going to market, is the secret of the goodness of farm home-canned corn. Right—It's the golden sirup made from corn which added to candies give them that smoothness of texture that puts them into the professional confectioner's class.



## You May Have the Recipes

WOULD you like the recipes for these tempting corn dishes? Then send for Ruth Goodall's new leaflet, "Corn Around the Clock," which includes besides the things shown on these two pages a host of other ideas for getting more corn into the diet, from those breakfast corn cakes to popcorn sweets at bed time. They are favorites from the Goodall kitchen—every recipe tested. A postcard asking for it and addressed to Mrs. Ruth Goodall, Woman's Editor, Kansas Farmer, Topeka, will bring you the leaflet immediately.



# BUTTER-NUT COFFEE

HAS BEEN CHOSEN  
AS THE EXCLUSIVE  
COFFEE TO BE SERVED

AT THE **NATIONAL  
CORNHUSKING  
CONTEST**

LAWRENCE, KANS.  
Nov. 1, 2 and 3



More and more Kansas folks are swinging over to Butter-Nut Coffee. It does have better flavor and there's a reason —

## HOW BUTTER-NUT DOES IT

Coffee's newest sensation is the Special Mellowing Process, discovered by Butter-Nut. It unlocks new treasures of flavor in choice coffees.

Instead of sending the coffee direct to the roaster, after blending, Butter-Nut now sets it aside for a time to mature and to permit the blended flavors to intermingle.

The result is amazing. The tart qualities soften and mellow. The flavor becomes richer — has a new delicacy and charm. In short, it is the finest coffee Butter-Nut ever made — and that is pretty close to perfect.

If you are using some other brand

we want you to try a can of Butter-Nut and make a comparison. If you do not like the new Butter-Nut much better, we will refund your money. You want the best — and here it is — costing no more than the coffee you have been using. Try it soon.

## DRIP GRIND

You should not make drip coffee with regular grind. It takes a coffee that is ground finer. Order a can of Butter-Nut "Drip Grind" Coffee. You will use less coffee and get simply marvelous results. This applies to Dripolator, Silex, Vaculator, etc. For percolator or coffee pot the ideal coffee is "Regular Grind." Be sure you say which you want when you order.

**SPECIALLY MELLOWED**

## PRIZE WINNERS

For Your Wardrobe

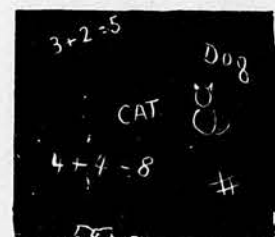


Pattern 9219—Fair-est at the fair, in a jaunty slim-waisted jumper style. Sizes 10 to 18. Size 14, jumper and bow, requires 1 3/4 yards 54-inch fabric; short-sleeve blouse, 1 3/4 yards 39-inch.

Pattern 847—Carry off prizes in this neat, front-buttoned dress, gay with scallops. Sizes 16 to 20 and 34 to 46. Size 36 requires 4 1/4 yards 35-inch fabric and 1/2 yard contrast.

Pattern 9218—Little girl affairs are more fun in this pert princess frock with scalloped trim. Sizes 2 to 10. Size 6, long-sleeve dress, requires 2 1/4 yards 54-inch fabric; other version, 2 3/8 yards 35-inch fabric and 3/8 yard contrast.

Pattern 9200—Fair-lady fashions for matrons. See the soft bodice lines; the slimming skirt panels. Sizes 34 to 48. Size 36 requires 4 3/8 yards 39-inch fabric.



Pattern 4274—Made for gaiety, this demure misses' style with bustle-bow and pretty yoke. Sizes 12 to 20. Size 16, short-sleeve dress, requires 3 3/8 yards 39-inch fabric; long sleeve version, 3 3/8 yards.



Patterns 15 cents each. Address: Fashion Service, Kansas Farmer, Topeka.

Kansas Farmer for November 4, 1939



# Scrap Bag "Babies"

By RUTH GOODALL

ALONG about the time "the frost is on the punkin and the fodder's in the shock" clever needlewomen get to thinkin' about the things they'll make for gifts and fall bazaars. Even those on an economical budget need have no qualms when the makin's for so many charmin' things are to be found within the low and humble scrap bag.

All that's needed—some new ideas with patterns to get you started. And here they are—a whole collection of hot iron transfers with actual size patterns to make every single item on this page. Bedroom ensemble, crib spread, bib, cuddle toy, chair set, quilt and tea towel motifs have been designed to utilize the odds and ends sure to be found in any scrap bag. All of them are included in our collection, No. C8980—and mind you—it costs only 25 cents.

Briefly, let's delve into the designs which make up this collection: Seven outline Mammy motifs become a day-by-day tea towel set. That's bits of bias tape edging Mammy's skirt. And at the very top is illustrated a matching Mammy pan holder.

Bo-Peep in applique is the center of attraction on the crib spread, while 4 of her lost sheep frolic gaily in the corners. Simply outline the sheep and the bright little flowers—then quilt diagonally and add the print border.

An applique duck and rabbit are suggested for Baby's bibs, but, of course, they may be simply embroidered.

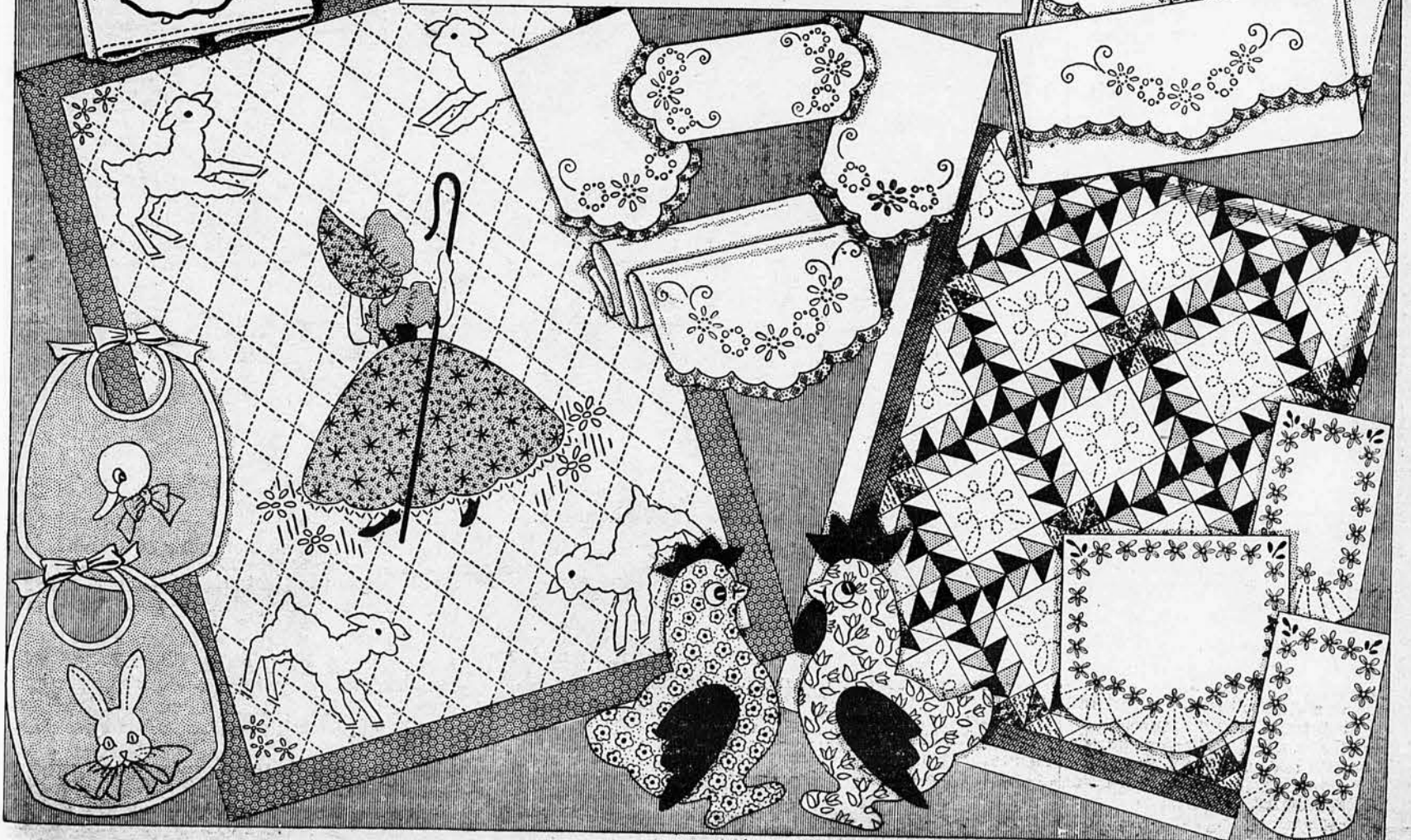
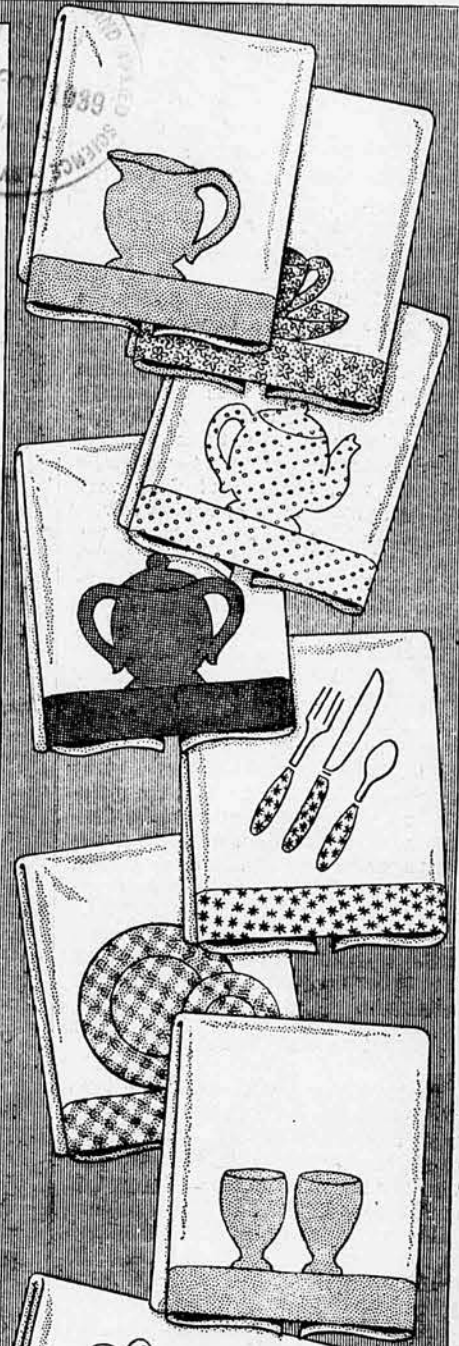
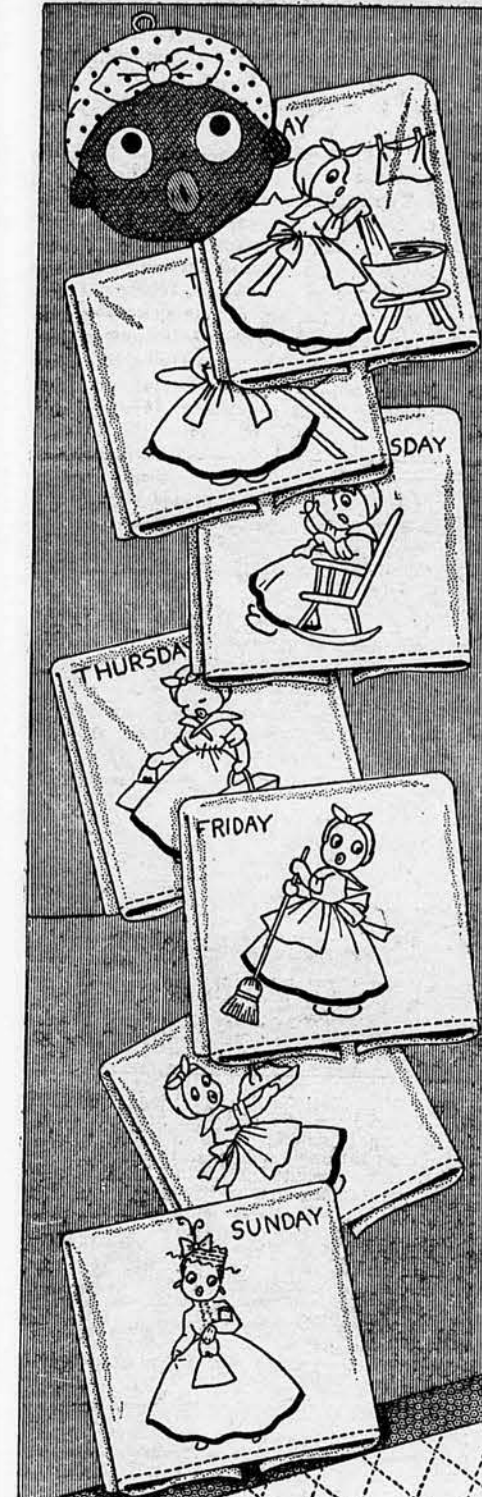
Sally Hen and Pete Rooster are next on the scene—proud of the plumpness inside their print bodies, and so eager to become pets of little boys and girls everywhere.

On goes the procession of designs that will delight you—a flower-bordered chair set for the gift that is different. A lovely spray pillow slip, vanity and scarf ensemble will bring new life to the bedroom.

The Triangle quilt is unusual in that it is pieced in strips around quilted squares. Cutting guide, quilting motif and complete directions for this quilt are given.

Appropriately enough, we find another bright tea towel set at the end of this grand collection. Applique dishes are used for the 7 towels, with matching print borders.

Better order this collection at once, so you may start your fall needlework without delay . . . it is just 25 cents and the order number is C8980. Address orders: Needlework Service, Kansas Farmer, Topeka, Kan.





## The Future of Hybrid Corn

(Continued from Page 24)

hybrid corn in Kansas cannot be described in one short paragraph. The type of hybrid which can be used in one area must be entirely different from the variety used in a different area or on different soil types in the same area.

Let's take first the area south of the Kaw river and east of Highway 81, which runs north and south across Kansas, thru Wichita and Salina. In this whole area corn can be planted relatively early because it is in the southern part of the state. The bottom land in this whole area is wonderfully fertile. It can use relatively later hybrid varieties than the thinner upland soils. Generally speaking, these fertile bottoms will, because of their very fertility, produce a very rapid growth. A hybrid which can be planted by the middle of April and be in hard dough stage by the Fourth of July, will generally find enough moisture still available to go ahead and mature a sound, solid corn crop after that date despite the heat which Kansas expects after wheat harvest.

On the other hand, the upland soils of the same area are not quite so fertile. They won't push along the plant so rapidly, they won't retain the moisture so well, and they must be further advanced by the same date in order to mature a crop. In other words, it simply takes an earlier hybrid variety to do the job on the upland than it does on the bottom. Upland corn, in this area of Kansas, should be hard dated by the Fourth of July in order to be safe.

### The Best Corn Area

In Northeastern Kansas it is quite a different story. This area has always been recognized as one of the finest corn-growing areas in Kansas. The weather is generally less severely hot and there is a good deal less difference in the soil between bottom and upland in Northeast Kansas than there is in Southeast Kansas. Moreover, it is more hazardous to plant early in Northeast Kansas than it is in the southern part of the state.

Probably the best practice to follow in the northeastern part is to divide the risk on corn by planting part of the acreage to a relatively early hybrid planted relatively early, and planting the other part of the acreage to a relatively late variety, planting rather late in the season. If the early season is good, and if the rains continue until July 10, the early hybrid, planted early, will make a grand crop. If, on the other hand, the late season is better, that part of the acreage will come thru. It is a good deal better to have a fair amount of corn every year than to plant the whole crop at one season and have a grand crop part of the years on all the acres and a failure other years on all the acres.

And what about the western half of the state? The experience is too limited to make a safe prediction on the future of hybrid corn in Western Kansas except in the irrigated areas. In the light of the experience of the last two years, it would seem there can be no doubt that every acre of corn planted in Western Kansas under irrigation will be planted with hybrid seed

within the next 2 years. The advantages of hybrid under irrigation have been so pronounced as to be almost phenomenal.

On the non-irrigated land in the western part of the state there lies a challenge to the hybrid breeder and to the hybrid seed producer. This whole western area is settled with people who know about corn, who raised corn before they went to wheat farming, who love to feed corn, who wish to raise corn. They know the handicaps. But they have been planting corn year after year in a limited way because they like it as a feed crop. I believe all of the evidence of the Kansas State Agri-

cultural College at Manhattan has been in favor of sorghums in Western Kansas—yet Dr. Throckmorton, of the college, told me last spring that farmers of the area still want to produce corn so badly they plant acres of it every year.

And, having seen what the hybrid industry has done in the way of producing special-purpose hybrids for the fringe of the corn-growing area, I predict without hesitation that hybrids will permit a satisfactory corn crop for the area. We have seen enough this year in Western Nebraska, in the Panhandle of Oklahoma, at Clayton, New Mexico, and in every Western area, where the weather conditions gave the hybrids just half a chance, very phenomenal results.

Until now the chief aim of the breed-

ers of hybrid corn has been to increase the yield and stiffen the stalk—at the same time trying, of course, to produce good quality corn with shanks which will let the ear stay on the stalk. And these higher yields and stiffer stalks and good shanks have been produced in such a way as to justify corn growers in planting hybrid corn on all their corn acres.

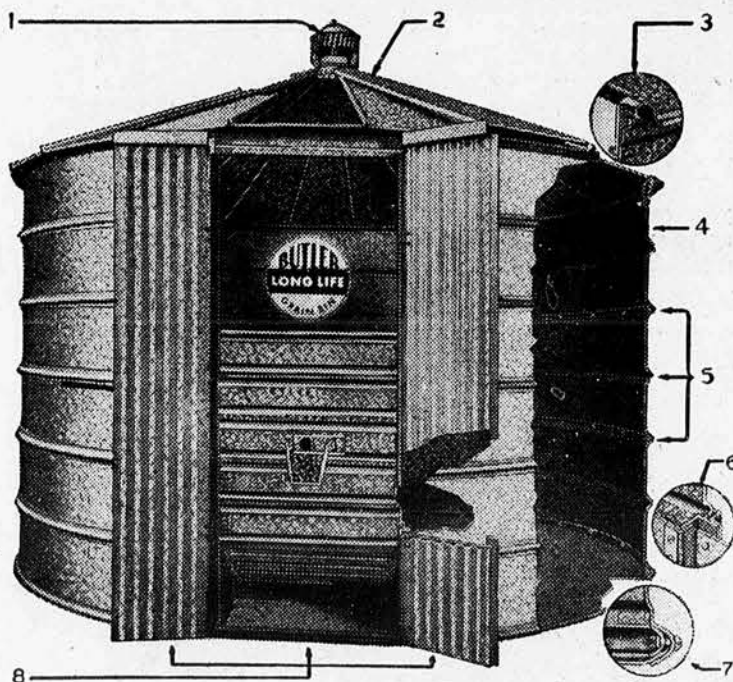
The future breeding operations will, of course, strive for higher yields, for even stiffer stalks, for even better quality. But, in addition to these qualities, which are so necessary to the satisfactory production of corn, the plant breeders are now going into other elemental parts of corn. Perhaps the next great improvement will be the improvement in the protein content of hybrids.

**BIGGEST ORDER  
FOR  
FARM BINS  
EVER PLACED!**

# Government Buys

# BUTLER GRAIN BINS

**TOTAL CAPACITY 42,870,000 BU. TO SUPPLY 2/3  
OF THE FARM STORAGE CAPACITY OF THE AAA  
EVER NORMAL STEEL GRANARIES:**



Store It In Steel On The Farm long ago became the standard practice of wheat growers. Almost from their beginning in 1901, Butler factories have supplied thousands and thousands of the finest, extra-strength galvanized steel bins for the rat-proof, fire-safe, weather-tight storage of grains of all kinds on the Nation's farms. Butler Steel Bins 29 years old are still in service. Their outstanding endurance records have established them as the long life bins. Their low cost, distributed over the long years of service for which they are famous, affords the last word in farm storage AT LESS THAN 1/2 CENT PER BU. PER YEAR.

More and more corn growers have been shelling old corn into Butler Steel Bins to make room for new crops. It is a practice that has proven practical and economical, and one that the Government has now turned to on a huge scale in carrying out a primary aim of the A. A. A. farm program, i.e., an "Ever-Normal Granary" to be filled in times of plenty and tapped in times of scarcity.

About 90 days ago the Government called for bids on more than 30,000 steel corn bins or 2 1/2 times the steel grain bin manufacturing capacity of the country. Butler met the emergency by adding a new 17-acre factory, its third, at Galesburg, Ill. In less than 60 days 20,500 BUTLER STEEL CORN BINS, or two-thirds of Government steel bin requirements, have been delivered. Into them for safe keeping is going 42,870,000 bushels of corn.

At long last the steel farm bin has come fully into its own for the storage of corn, as well as all other grains. See the newest development in ear corn storage on next page.

### Here's How BUTLER STEEL GRAIN BINS Are Built Stronger To Last Longer • To Give You Easier Grain Handling and To Set Up Faster and Easier!

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1 New exhaust type ventilator. Draws moisture-laden air out—circulates new air in bin.</li> <li>2 Full size roof manhole for easier filling.</li> <li>3 Deep-drawn roof ribs, reinforced eaves and steel strap roof anchors make a rigid roof.</li> <li>4 Side wall sections are interchangeable and longer, to cut down erection time.</li> <li>5 Deep-drawn and shouldered corrugations give far greater strength than ordinary</li> </ol> | <ol style="list-style-type: none"> <li>corrugations and lap together weather-tight.</li> <li>6 Sturdy angle steel door frame, full height, to which side wall sections are anchored.</li> <li>7 Steel bottom adjusts itself and is tightly clamped into deep-drawn side wall corrugation.</li> <li>8 Larger, 33 1/2 inch, entry door. Fitted with two double steel swinging doors and stamped steel door boards and shoveling board. Slip-on spout and port with sliding door for easy sacking.</li> </ol> |
|---|--|



**BUTLER — THE 29 YEAR ENDURANCE RECORD**



## Lawrence Welcomes You

(Continued from Page 17)

groups with Free-State companies gathered at Lawrence.

1856: February 6—Charles Robinson named first governor, but opposition retains headquarters at Leecompton.

May 21—John Brown, 6 sons and a son-in-law, are in Lawrence as Sheriff Jones comes from Leecompton with armed force and burns Free State Hotel, the "Herald of Freedom," and Robinson's home.

June 2—Battle of Black Jack, south-east of Lawrence.

June 4—Free State attack on Franklin between Lawrence and Eudora, capturing arms and ammunition.

August 12—Second Free-State attack on Franklin and the Pro-Slavery blockhouse burned.

August 16—Fort Titus, near Leecompton, is captured by Free-Staters.

September 13—Pro-Slavery men surrender to Lawrence force after fight southwest of Oskaloosa.

In the next 7 years, preceding the Quantrell Raid, Kansas was admitted as a state, Abraham Lincoln was inaugurated President, and the Civil War was under way. Immediately after the raid, Lawrence began to rebuild and in the next few years the population grew rapidly. Between 1860 and 1870, the population increased from 1,645 to

8,320, a growth of 405 per cent in 10 years.

During that decade, it was in 1868, Lawrence was selected for the site of the State University, a school that within a comparatively short time was to become one of the leading educational institutions of the country. And it was only a short time later, in 1883, that the city deeded 280 acres to the Federal Government as a site for Haskell Institute, which opened within a year with 14 Indian students. Today, with an enrollment of 750, this is the most important Indian school in America.

Few of the younger generation of Lawrence, or of Kansas, know much about Charles Robinson, Charles Branscomb, and the other early pioneers, and most of today's population

has only a smattering of information about those early days when only the greatest of courage could overcome the hardships encountered in trying to build a city on the banks of the Kaw. But it was the courage of Robinson, Branscomb, and the others which left a never-ending impress upon the future generations which have guided Lawrence into a position of leadership both as a business community and as an educational center.

Most of the visitors to the 1939 National Corn Husking Contest will not be going to Lawrence for the first time; they have been there before to hear the world-famous "Rock Chalk Jay Hawk" yell thundering out of the huge K. U. stadium; to attend one of the many state-wide conventions; to witness one of the colorful Indian Pow Wows at Haskell; to visit a son or daughter or brother or sister attending K. U.; to witness the inspiring commencement exercises, or to shop in Lawrence stores.

Those who do see Lawrence for the first time will find a busy community with a school year population of about 19,500. This includes about 15,700 permanent residents in Lawrence and the surrounding residential districts, and about 3,800 University and Haskell students who live there for 9 months in each year. The total annual enrollment at K. U. is about 5,500.

Since 1930, Lawrence has jumped from 12th to 9th place in Kansas in city population. Present residential building indicates a further steady growth before the federal census takers start on their rounds sometime next year.

Progressive and industrious business leaders have made Lawrence an outstanding business center, outranking 197 larger cities in the United States in total retail sales. The most recent business surveys conducted by the United States Department of Commerce show Lawrence to have an annual per capita retail sale of \$492, which is \$222 above the average for the country and far above the per capita sales for other cities in eastern Kansas.

Farming in the Lawrence area is diversified. Few of the substantial farmers in this section shuttle back and forth to California between wheat crops. They work the year round on their many enterprises.

True, the farmer in this area has suffered with other farmers with low prices and drouth, but he has not had all his eggs in one basket. Two large dehydrators and a large canning plant have brought an income to match losses in other crops. Douglas county, of which Lawrence is the county seat, is not recognized generally as an outstanding dairying community, and yet the 9,400 dairy cows produce between \$500,000 and \$1,000,000 a year, depending upon market prices. As the hub of the Kaw Valley potato area, nearly a thousand cars of the tubers are shipped from Lawrence in a normal year, which is half the total number of freight car loads of fruits and vegetables shipped from Kansas in a normal year.



# 10,500 BINS!



YOU, TOO, CAN GET  
PROMPT DELIVERY ON  
FIRE-PROOF, WEATHER-  
TIGHT, RAT-PROOF  
BUTLER LONG  
LIFE BINS!

Your hardware, implement or lumber dealer either has Butler Steel Bins on hand—or can get overnight shipment from the nearest of the 3 large Butler factories at Kansas City, Galesburg or Minneapolis. Butler Bins bolt together quickly and easily without troublesome fitting.

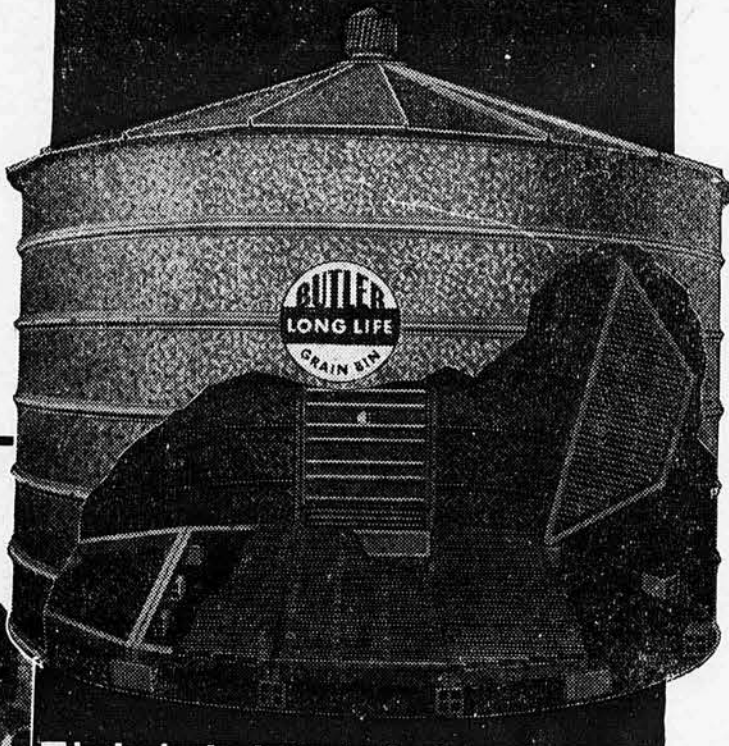
### And Here's The Newest Proven Development in CORN STORAGE

Equip your Butler Steel Bins with grated bottoms as shown at the right and you have the finest kind of EAR CORN CONDITIONER. Developed by Butler Engineers cooperating with experiment stations and fully field proven by leading hybrid seed corn growers. Air enters through shoveling board under grated bottom—passes upward picking up moisture from corn. Butler's exclusive, exhaust type, revolving roof ventilator draws moisture laden air out the top. Air circulation through grain can be controlled by closing bin doors in wet weather. Reduces moisture content of ear corn, maintains its quality. Steel walls, bottom and roof keep out weather, rats, fowl and fire. With Butler Steel Bins you can benefit fully from this scientific way of corn conditioning. See your dealer or write.

**APPROVED BY THE A.A.A.**

For the Storage of Corn With 17½%  
Moisture Content

*See it!*



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..... ft..... ft. Butler Zinc-Grip Stock Tank.

Name.....

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**STEEL GRAIN BIN!....**



# 200,000-ACRE INCREASE

## In Tame Grass Pastures

By KLING L. ANDERSON, Kansas State College

**T**HOUSANDS of acres, well suited for the grass which once covered them, have been broken and planted to the so-called "cash crops" only to find the soil could not continue to produce these crops.

Many Kansans now know that grass must be reestablished on this land. Also that too small a per cent of the farm land is in pasture. And we are beginning to realize that grass can be grown as a paying crop on some of the better land as well as on the poor, eroded slopes.

Realization of these facts has resulted in a great increase in the amount of tame permanent pasture in Eastern Kansas. There are now more than 1,500,000 acres of tame or cultivated grasses in the Eastern 1/3 of the state, an increase of 200,000 acres in the last 10 years.

There are several reasons why we are beginning to look to grass as a valuable crop. First, and most important, is the increase in returns to the acre from grasslands as compared to cropped land. This increase of returns is brought about by: (1) the reduced cost of producing feed, and

(2) the increased value of the crop when marketed in the form of animal products. In other words, pastures produce cheaper feeds than do tilled crops, and when pasture has been converted into animal products it brings greater returns than do the so-called cash crops.

Tame perennial pastures are seeded once, thus distributing the cost of seed-bed preparation and cost of seeding over several years instead of applying the entire cost to a single crop year. What is perhaps more important, is the complete elimination of harvesting costs thru grazing.

### Valuable as Soil Builder

Pasture is the highest quality feed obtainable; the natural feed for livestock. It is high in proteins, minerals, vitamins, and all elements an animal requires in its diet.

As soil builders permanent pastures can become valuable additions to the long-time crop rotation plan on every Eastern Kansas farm. Land that has been in pasture for a time has a strikingly higher level of fertility than it

had before the pasture was seeded. The crop producing power of freshly turned sod is familiar to Kansans, particularly to those who have broken virgin prairie soil and planted it to a crop. The fertility had been built up by the incorporation into the soil of vegetative matter from both roots and tops of the prairie vegetation. That is what happens when land is planted to grass.

Grass has remarkable ability to control soil erosion and to reduce the loss of water by run-off. In addition it breaks the force of the falling rain so that it cannot beat and puddle the soil surface. But, the value of grass in erosion control does not cease to exist even after the land is again plowed up. The improved physical condition of the soil makes it so more water can actually enter the soil.

Another very important role tame grass pastures play is to supplement native pastures during the season when the latter need protection from grazing. The tame grasses can be grazed fully a month earlier than the native pastures, and while they fail to make a great deal of summer growth, they revive again with the return of cooler weather to produce abundant fall pasture. The bluestems, on the other hand, are summer grasses, making their greatest growth in the warmest summer months. Hence, early and late grazing of tame grass pasture, in conjunction with summer grazing of native grass, will give a much longer grazing season than can be had with



Emil Heck, general chairman of the Lawrence National Corn Husking Contest committee, a widely known and eminently successful Kaw Valley farmer.

either type of pasture used alone. Not only is the grazing season extended, but the protection afforded the native grasses during spring will permit them to yield a great deal more forage.

It is well known that a perennial plant initiates spring growth at the expense of foods stored in its roots by the previous season's top growth. This stored food was manufactured in the green leaves of the plant and translocated to the storage organs, the roots. Spring growth continues to reduce the supply of stored food in the roots until sufficient green leaf material has been produced so that the plant can manufacture food more rapidly than is required for growth. After this point is reached, storage in the roots is again resumed. A reserve is thereby built up to start the following year's growth. A grass which is grazed closely at the beginning of the growing season may never be permitted to attain sufficient leaf area to manufacture foods as rapidly as they are required for new growth. The result is a continued drain on the reserves until finally the plant weakens and dies. Many bluestem pastures have been completely destroyed by this process.

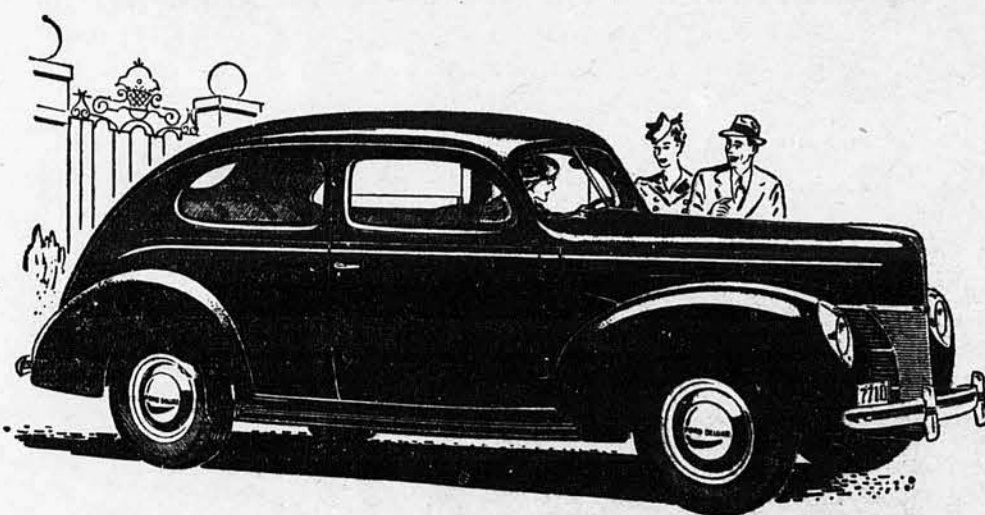
It has been found that bluestem grasses will normally make sufficient growth by early June to start manufacturing foods more rapidly than they are required for growth. At this time, the depleted food reserves begin to build up again, and by July they will usually have been increased to their early spring level. Carefully controlled experiments on the ranch of Dan Casement, near Manhattan, have shown that bluestem pastures, on which the grazing was delayed until July 1 each year, have consistently yielded from 25 to 35 per cent more beef to the acre



Charles O. Radcliffe, president of the Lawrence Chamber of Commerce, Lawrence.

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**IN A 1940 FORD** you get more room, greater quiet, a finer ride, easier handling, and a much more luxurious car than ever before. There are no less than 22 important 1940 improvements, including the following:

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Improved soundproofing; quieter operation

**And the only V-8 engine in any low-priced car!**

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**FORD V-8**  
*for 1940*





Raymond H. Gilkeson, managing editor of Kansas Farmer, and general manager of National Corn Husking Contest.



George Hedrick, secretary of the Lawrence National Corn Husking Contest committee, and of the Lawrence Chamber of Commerce.

than those where grazing began on May 1. Meanwhile, the grass has been maintained in better condition.

What does this have to do with tame grasses? Simply this—tame grasses provide spring grazing. This allows the native pastures to be protected at the time of year when protection is most needed, that is the beginning of the growth season. From this standpoint alone, tame grasses are valuable.

Finally, in view of the agricultural surpluses of the last few years, certain types of farm land probably should be retired permanently from crop production. Tame grass pastures provide a profitable means by which this retirement can be effected in Eastern Kansas.

In general, the seedbed is the most important single consideration in the establishment of a tame grass pasture. It is necessary that the soil at seeding time be worked down into a firm, moist seedbed with a fine mellow surface. Such a seedbed as is recommended for alfalfa is satisfactory for the grasses.

None but the best seed should be planted. Altho it may cost a little more, the added assurance of a good stand will more than compensate for the cost. Plant only seed that has been tested both for purity and germination. If possible, obtain seed grown locally for it is more likely to be adapted to local conditions than shipped-in seed.

When seeding grasses, it is well to remember that mixtures are better than single species. Mixtures should contain sod-forming grasses as well as bunch grasses to produce a good turf. They also should contain alfalfa or some other legume to increase the quantity of forage as well as its qual-

ity. Brome and orchard grass are probably the most desirable pasture grasses for Eastern Kansas. To these two species may be added meadow fescue, timothy, red top or Kentucky bluegrass and some legume such as alfalfa, Sweet clover, or Korean lespedeza. The choice of these grasses and legumes will depend upon their adaptability to local conditions.

Good stands of grass are often obtained by broadcasting but it is always much safer to drill. In any case, it is advisable to pack the soil after seeding either with the drill or by broadcasting. Rapid germination and quick emergence are important in order that the seedling grasses may extend their roots quickly into moist soil.

The date of seeding tame grasses, too, is important. It has been found that early September is the best time of year for this. Often the tame grasses are seeded in the spring, but this greatly increases the weed problem. Also spring seeded grasses are less able to stand hot, dry summers. Grasses seeded early in September have time to become established before winter. They are then ready to start their spring growth ahead of the weeds and will have attained sufficient size by summer to withstand heat and drouth.

New stands of grass require a certain amount of care, especially the first year. If weeds appear, they can be controlled by mowing once or twice until the grass is well established.

The new pasture should not be grazed the first spring but in a good year it may be used later in the season. Never graze a new pasture intensively, however, as this hinders normal development of the plants and delays the formation of a good turf.



Deal Six, county Farm Bureau agent of Douglas county, and vice-chairman of Lawrence National Corn Husking Contest committee.



Roy R. Moore, advertising manager of Kansas Farmer, and general manager of Farm Power and Equipment show at National Corn Husking Contest.



## THE 1939 CHAMPION

**T**HE furious rip and tear of a husking contest is exciting. It's keen competition—and a great display of speed, skill, strength and energy.

But as the fine big ears are stripped, it's interesting to know that in each plump clean kernel of corn is a vital food substance which gives energy to the body. That substance is Dextrose, the sugar which is so abundant, in Karo, America's favorite table syrup.

The husky farmer who works hard, his busy wife, his growing children—all need Dextrose. And the very corn he grows and sells gives back to him and his, in the form of Karo, some of the body energy they expend in their daily lives.

Yes—corn makes Karo a champion of energy-producing foods this year as in all years. It is pure, delicious, nourishing. When you buy Karo, you help the Corn Belt maintain its prosperity. The makers of Karo are the world's largest buyers of cash corn.

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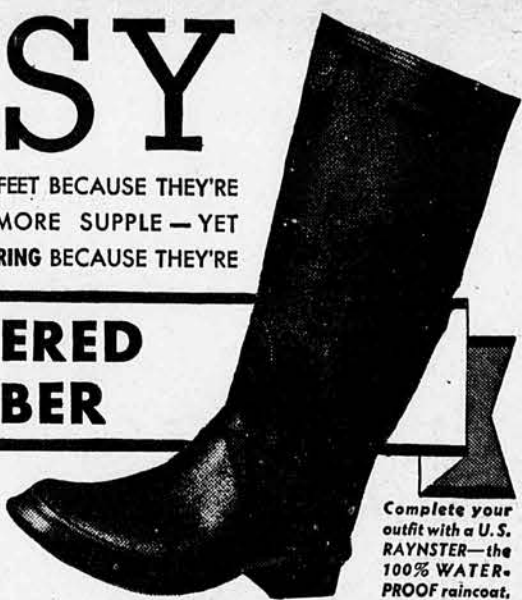
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for **POULTRY, CATTLE and HOGS**

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Rewards  
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**O**UR improved poultry marking system, our Bloodhound Thief Catcher, and our liberal provisions for reward payments give you a simple yet effective means of protecting your farm property against theft—and at practically no cost to you. Proof that Capper's National Protective Service gets the job done is contained in the statement of its reward payments—\$110,550.00 for the capture and conviction of 4,751 thieves. Some of the provisions for our liberal reward payments, effective October 1, 1939, and until further notice, are printed below.

(1) If a theft by any person or a swindle by an itinerant agent or peddler is committed on the farm premises personally occupied by a Protective Service member, living on a rural route.

(2) By "farm premises" is meant a dwelling house on a R. F. D. mail route, as indicated on the mailing list of the Capper farm paper of which you are a subscriber, with the adjacent buildings and the adjoining lands appropriated to the use of the household. The reward offer does not apply to a theft or swindle committed in a storehouse, filling station or other buildings open to the public nor to the theft of goods kept for resale, nor to livestock on the open range.

(3) If automobile or truck belonging to a Protective Service member is stolen anywhere, provided said automobile or truck has a legible

Protective Service windshield sticker pasted on its windshield at the time the theft occurs. (This applies only to the whole vehicle, not to accessories or articles in truck or car.)

(4) Conviction and sentence to a state or federal penitentiary for a definite term of more than 5 years for one of the foregoing crimes will merit a reward of \$50. In other words, it must be stated clearly in the court records that criminal is to serve 6 years, 10 years, or some other definite term greater than 5 years.

(5) Conviction and sentence to a state reformatory or to a county jail for a term of at least 60 days or to a state or federal penitentiary for an indefinite term or for a definite term of not to exceed 5 years for theft will merit a reward of \$25. In any case sentence must be served.

For complete rules and explanation of our Protective Service ask the Capper Man in your county or write to:

**CAPPER'S NATIONAL PROTECTIVE SERVICE  
Department K  
Topeka, Kansas**



## Room for 30,000 POULTRY FARMS

By L. F. PAYNE, Kansas State College

**T**HE Kansas poultry industry at its best would consist of 30,000 farmers, each keeping a flock of 300 mature, well-bred chickens, properly housed, fed and managed, so as to produce large, high quality eggs good enough to meet the requirements of the discriminating consumer in any part of the country.

It is assumed that only those farmers who wished to make poultry an important enterprise on the farm would keep a flock as large as suggested above. They would have sufficient interest in the flocks to demand high producing, vigorous stock. These farms would be properly equipped to comfortably house such flocks. The chicks would be hatched in season so as to give good fall, winter and spring production without going thru a molt. The feeding of a complete ration would insure rapid growth of young stock, uniform egg production thruout the year, and a quality product which would command the highest market prices.

To be more specific, let us say that only those eggs weighing 24 or more ounces to the dozen would be set. The birds in the breeding flock would approximate standard weight. The ration supplied the breeding flock would consist of grains supplemented with protein concentrates, minerals and vitamins, and the feed would be liberally supplied thruout the year.

To produce clean eggs plenty of clean litter would be kept on the floor and in the nests at all times. Droppings boards would be installed under the roost poles and 2-inch mesh wire would separate the roosts from the droppings. The hens would not roost in the nests.

Infertile eggs would be produced after the hatching season or about May 15. In wet or stormy weather the birds would not be released from the laying house until late in the afternoon, if at all. Open-front, straw-loft houses, with 3 to 4 square feet of floor space for each bird would be available and each bird would have 7 to 9 lineal inches of roosting space. One covered nest 12 or 14 inches square would be installed for each 6 hens kept. Broody hens would be confined to broody coops as soon as discovered.

The eggs would be gathered two or more times daily. They would be kept in a cool cellar or basement with high humidity for 18 to 24 hours to chill thoroughly before packing small end down in new 30-dozen egg cases. The temperature of such a room preferably should be between 45 and 65 degrees F. There should be an absence of objectional odors in the room.

Finally, these high quality eggs of standard weight, normal shape and uniform color would be taken to market not less than twice a week. They would be protected from the hot sun, cold rain or unnecessary jarring while in transit. They would be taken to a dealer who purchased on a graded basis and who made a serious effort to find a good outlet for such products in order that producers might be adequately compensated for their efforts. He should also be a buyer properly equipped to maintain the high quality delivered to him until the eggs were continued on their journey to some distant market.

All of this means that poultry producers in Kansas must become more

Thousands of chicks are distributed by packers, feed companies and Chambers of Commerce to young folks' clubs in Kansas. Receiving chicks April 15, 1939, were left to right, Betty Dodd, Lola Hanshaw, Phyllis Fencie and Dorothy Livingston, Washington county. Below, a 20 by 70-foot laying house for 300 hens.





## Splendid Cough Remedy Easily Mixed at Home

Needs No Cooking. Big Saving.

To get quick and satisfying relief from coughs due to colds, mix your own remedy at home. Once tried, you'll never be without it, and it's so simple and easy.

First, make a syrup by stirring 2 cups granulated sugar and one cup of water a few moments, until dissolved. A child could do it. No cooking needed.

Then get 2½ ounces of Pinex from any druggist. This is a compound containing Norway Pine and palatable guaiaicol, in concentrated form, well-known for its prompt action on throat and bronchial membranes.

Put the Pinex into a pint bottle, and add your syrup. Thus you make a full pint of really splendid medicine and you get about four times as much for your money. It never spoils, and children love its pleasant taste.

And for quick, blessed relief, it is amazing. You can feel it take hold in a way that means business. It loosens the phlegm, soothes the irritated membranes, and eases the soreness. Thus it makes breathing easy, and lets you get restful sleep. Just try it, and if not pleased, your money will be refunded.

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# CHEST COLD

Massage throat, chest, and back with plenty of Vicks VapoRub at bedtime. Then spread a thick layer on chest and cover with a warmed cloth.

VapoRub's double action brings double relief. It acts as a poultice to penetrate the surface skin; and its soothing medicinal vapors are breathed direct to the irritated air passages.

Try it, to loosen phlegm—to clear air passages—check tendency to cough—and also to relieve the tightness and soreness of chest muscles.

**VICKS VAPORUB**

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912.

Of Kansas Farmer, published Bi-Weekly at Topeka, Kansas, for October 1, 1939.

Before me, a Notary Public in and for the state and county aforesaid, personally appeared H. S. Blake, who, having been duly sworn according to law, deposes and says that he is the General Manager of the Kansas Farmer and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are:  
Publisher: Arthur Capper, Topeka, Kansas  
Editor: T. A. McNeal, Topeka, Kansas  
Managing Editor: Raymond Gilkeson, Topeka, Kansas  
General Manager: H. S. Blake, Topeka, Kansas  
2. That the owner is Capper Publications, Inc., Topeka, Kansas. Arthur Capper, President, Treasurer, and Publisher, Topeka, Kansas.  
3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: Florence Hammond, Chanute, Kansas.

H. S. BLAKE, General Manager.  
Sworn to and subscribed before me this 20th day of October, 1939.  
G. L. METSKER, Notary Public.  
(My commission expires Aug. 26, 1942.)

Kansas Farmer for November 4, 1939

and more specialized. First, they should have enough invested in the poultry unit to justify proper care and attention. Then they should exercise good management practices if the poultry products from Kansas are to compete favorably with those from other states. Consumers are increasingly becoming quality minded. They can buy plenty of good eggs, so why consider inferior ones? The latter are a drug on the market and will become more so as the volume of quality products increases, which it is doing in many states.

A 300-hen unit as described above should make a gross return of \$600 to \$1,000 annually to the flock owner. That would be about 18 to 25 per cent of the gross income from a good farm maintaining 5 or 6 major enterprises.

The 30,000 farmers suggested here constitute fewer than 20 per cent of the 155,735 farms in Kansas which keep poultry. The facts are that all of these farms produced only 91,384,584 dozen eggs or an average of about 587 dozen to the farm, according to the 1934 census, whereas a flock of 300 good hens properly cared for should produce about 3,446 dozen eggs a year. Hence, the 30,000 flocks would yield about 103,380,000 dozen high quality eggs a year or considerably more than is being produced on more than 5 times as many farms now keeping poultry.

What suggestion is offered for the other 125,735 farmers? Should they entirely cease keeping poultry? No! But they should keep just enough birds to supply the family needs. Their surplus products should not become a factor on the market. To date these farmers who are indifferent to the improvement of poultry products are so greatly in the majority that they demoralize any quality egg program which might be undertaken. They are the marginal producers.

Perhaps the greatest mistakes of the past have been those vicious circles made up of producers and buyers. The producers will not improve egg qual-

## For Home Bakers

These cooler days make the task of bread-making a pleasant one, and with the new rapid yeast now on the market, there is no need of setting the sponge hours beforehand. A little pamphlet, "Tried and Tested Recipes," contains 21 recipes for various kinds of bread, rolls, and buns; also suggestions for doughnuts, waffles, and cake are included. We shall be glad to send the pamphlet free to anyone requesting it. Please print your name and address on a post card and mail it to Bulletin Service, Kansas Farmer, Topeka.

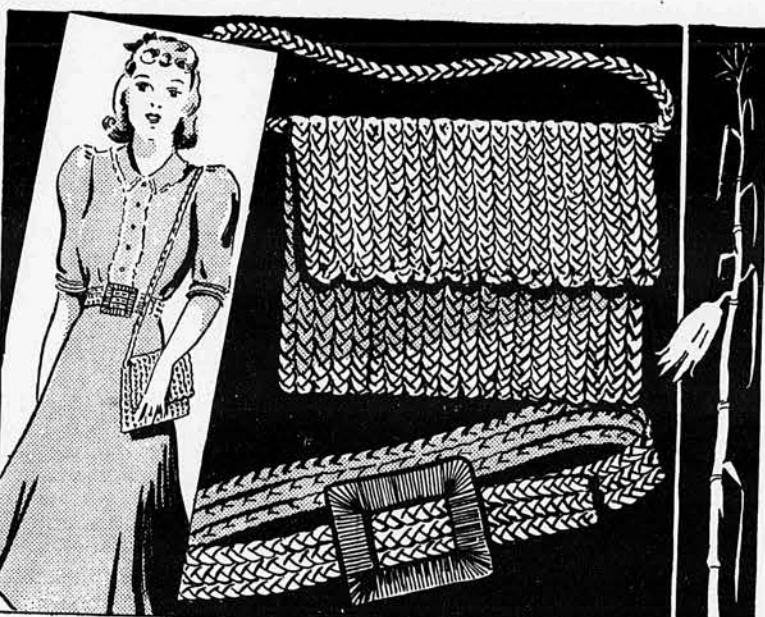
ity until the buyers pay a sufficient premium to justify the extra work and expense involved, and the buyers will not pay a higher premium for eggs until the good quality is available in sufficient volume to enable them to find suitable markets. Thus these irreconcilable attitudes stifle progress.

Poultry on the majority of Kansas farms has been a sideline too long. It is time for fewer farms to make poultry an important enterprise on the farm and for them to produce the surplus market eggs and poultry for the urban and distant consumers. Unless some such change in point of view can be put into practice, Kansas is in danger of slipping farther and farther behind as a poultry producing state.

Kansas does have many assets as a poultry producing state. Suitable climatic conditions, an abundance of low-cost feed, a central geographical location and excellent transportation facilities make poultry production profitable in this state for those who have the interest, initiative, and resourcefulness to take advantage of these assets.

## ADVENTURING

With Corn Husks



LET your imagination run riot and fulfill your dreams with corn husks!

This smart-looking bag and belt set is made of this lowly material. Dyed to match, or contrast with your basic costume, these bright and varicolored accessories will make your drab last season's dress sparkle with new vitality and charm.

But dress accessories are only part of the story. Hooked and woven rugs, doormats, chair bottoms, hot dish mats and place mats for the table, knitting bags, waste paper baskets, house sandals, garden hats, hearth brooms—unlimited are the possibilities of beautiful possessions and gifts to be made from this most ordinary of materials—corn husks. Easy and

pleasant work it is too, requiring no experience or "artistic ability."

Our leaflet, "Corn Husk Adventures," will give you directions for making all of the articles mentioned, which, in turn, will suggest ideas for many other and probably even more interesting things to be made from this otherwise waste material. Instructions for braiding, weaving, crocheting, and rolling and stitching corn husks are included in this leaflet, as well as directions for dyeing them. To be sure the natural color of corn husks is most attractive, but dyeing them is as simple a process as dyeing any cotton material.

We'll be glad to send you this leaflet. All you need do is address a card asking for it to Ruth Goodall, Woman's Editor, Kansas Farmer, Topeka.



## TRADE FOR ALADDIN WHITE LIGHT

Any old lamp now worth \$1.00 on New Aladdin that has won 7,000,000 users by whiteness and steadiness not surpassed even by electricity. Sew at night, read finest print, save precious eyes from strain of dim, yellow light. One gallon kerosene (coal oil) lasts 50 hours. No noise, smoke or smell. SAFE for CHILD to operate.

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Keeps Heat In and Cold Out—Better than Glass.

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A prospectus issued by Capper Publications, Inc., offers the readers of Kansas Farmer the following:

—\$5,000,000.00—

- (1) First Mortgage 5½ Per Cent Bonds payable in ten years.
- (2) First Mortgage Five Per Cent Bonds payable in five years.
- (3) First Mortgage 4½ Per Cent Bonds payable in one year.
- (4) First Mortgage Four Per Cent Certificates payable in six months.

The bonds are issued in denominations of \$100, \$500 and \$1,000, and the certificates are issued in denominations of \$50, \$100 and \$500. The present sale price of any of these bonds or certificates is par without premium or other cost.

This announcement is neither an offer to sell, nor a solicitation of offers to buy any of these securities. The offering is made only by the prospectus, copies of which may be obtained by writing to Capper Publications, Inc., Topeka, Kansas. Such requests will be answered promptly.—Adv.

## KANSANS WIN HONORS At American Royal Livestock Show

PITTING their animals against the nation's finest in show ring competition, Kansas exhibitors captured a big bouquet of blue and purple ribbons at the 1939 American Royal Livestock Show.

Outstanding accomplishments in the fat classes included several high honors claimed by Kansas State College. For the third consecutive year, R. F. Cox, in charge of sheep, and Tom Dean, herdsman, showed the grand champion wether lamb. This year it was a grade Southdown, weighing 95 pounds. The college also claimed grand championship honors on their pen of 3 grade Southdown lambs.

In the fat barrow competition, Kansas State was awarded purple ribbons for individual breed champions in the Poland China, Duroc, and Spotted Poland China breeds. The champion pen of 3 Poland Chinas was also included in this college herd, exhibited by C. E. Aubel, in charge of swine.

Grand champion steer of the show was Master Cup, a summer yearling Angus exhibited by the Oklahoma A. and M. College. This steer sold at \$1.50 a pound. While Oklahoma also claimed the honors for grand champion group of 3 steers and a long list of firsts, Kansas State College steers stood at the head of several different classes, including the senior Angus steers and junior Shorthorn steers.

Proving the effectiveness of an active beef production program in Kansas, exhibitors from this state took the 6 high places in the Farm Baby Beef Production Class. This class called for 15 head, calved after December 1, 1938, fed and owned by exhibitor. T. I. Mudd, Gorham, was first, followed in order by Jesse Crow, Bennington, Rodger Blanchard, Bennington, Robert Jackson, Holton, and Mrs. Bruce Saunders, Holton.

J. J. Moxley, extension beef cattle specialist, points to the winnings of these exhibitors as evidence that Kansas creep feeding practice is giving highly satisfactory results.

Another practice included in the Kansas beef production program proved its worth when Russell Baker, Overbrook, won second place in the carlot division with a load of Herefords fitted under the deferred full-feeding system. Mr. Baker's steers were in the class for steers averaging under 1,000 pounds.

Kansas cattlemen claimed 2 high places in carlot-feeder cattle compe-

tition. Dan Casement, Manhattan, won the grand championship on his load of Herefords, while Johnson Workman, veteran breeder of Russell, showed the champion Angus group. Mr. Casement's cattle sold at \$20 a hundred and Mr. Workman's cattle brought \$20.25.

Representing some 250 Kansas Angus breeders at this year's American Royal was an all-state Angus show herd of 10 animals. This herd, selected from the 1939 county show herds at the Kansas State Fair, was the first of its kind to be exhibited at an American Royal. Angus in the All-Kansas herd were owned by Jim Swartz and Sons, Everest, Warren Gilmore, Highland, Eyler Ranch, Denton, and John Simon, Maize.

Tomson Bros., Wakarusa, upheld the honor of Kansas in a strong Shorthorn show, judged by Prof. A. D. Weber, of K. S. C. The Tomson firm was awarded junior championship honors on their senior heifer calf, Joan 14th. The famous W. R. Nelson trophy for best Shorthorn calf of the show was also won by Tomson Bros.

D. L. Mackintosh, superintendent, reported an exhibit of more than 160 draft horses from leading herds throughout the country. Ralph L. Smith, Stanley, won the grand champion Belgian stallion award on his show veteran, Bolo de la Berberie. Fighting a hard battle against a strong field of Missouri exhibitors, Kansans came in for some high honors on mules. Champion mare mule and grand champion mule of the entire show was a 3-year-old shown by Hineman and Hiatt, Digton, Kan., and Braman, Okla.

Highest winning Duroc sow of the show was Champion Baby, twice world's grand champion, owned by Ralph L. Smith. E. C. Quigley, St. Marys, showed the junior champion Hampshire boar, Silversmith.

In a field of highly trained collegiate livestock judges, representing 17 different colleges, a team from Kansas State College ranked third, following closely behind Missouri University and Iowa State College. This team, coached by Prof. F. W. Bell, who has trained the last 3 winning teams at the International Livestock Show, will compete at Chicago next month. Members of the team: Evans Banbury, Pratt; Wm. Ljungdahl, Menlo; Dale Mustoe, Rexford; Dale Engler, Topeka; Marcel McVay, Sterling; and George Klier, Oxford. The Kansas boys ranked first in judging horses.

## Garden Hoe Gets Bindweed

SMALL patches of bindweed can be eradicated by use of the old-fashioned garden hoe, according to the experience of Campbell Berry, who lives in Allen county, 1½ miles northwest of Bronson.

Two years ago Mr. Berry bought his farm, not knowing it had considerable bindweed. Since the patches were small and apparently young, he decided to use the weekly hoeing method. Starting May 1, 1938, he hoed 16 individual patches once each week, on Saturday, until November 1. According to the calendar, this amounted to 26 hoeings.

During the spring and summer of 1939 Mr. Berry has frequently checked the 16 patches with the hoe and, according to his statement, found only a few plants which have appeared. The eradication of the old bindweed root system has certainly been accomplished. The old, starved and decayed roots are in the soil where the bindweed patches formerly existed. Mr. Berry stated that his hoeing was shallow but thoro.

County commissioners, county weed supervisor, county agent and state weed supervisor visited the Berry

farm on October 4, to inspect the results of this work. It was believed by those present that eradication was accomplished in one year's time because the bindweed patches were young and probably shallow-rooted.

## Bindweed Must Go

Bindweed is a menace which has slowly slipped into Kansas. And once it has grasped a hold, bindweed stubbornly sticks to its stand. Only the most extensive measures, carefully carried out, are able to destroy it. Now is a good time to check up on your farm, and if you have bindweed, plan to eradicate it next year. Complete and authoritative information on killing bindweed is contained in Kansas Farmer's leaflet, "Best Method of Eradicating Bindweed." For your copy, send a 3-cent stamp for mailing to Farm Service Editor, Kansas Farmer, Topeka.



## SEVERAL GRAND CHAMPION BARROWS

in State and National Junior Shows have been raised by Harold Eberspacher, Seward, Nebraska, twice State 4-H Pig Club Champion. He writes:

"I know LEWIS' LYE had a lot to do with this record... I mix LEWIS' LYE with slop or ground feed."

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BOY? GET A FRED MUELLER LIKE MINE—EASY ON YOU, YOUR HORSE, YOUR POCKETS OK!

Send today for FREE CATALOG



# The Good Old Days

## As Remembered by a Cornfed Westerner

By I. D. GRAHAM  
Kansas State Board of Agriculture

HAVING been reared on a ration of corn flapjacks and sorghum molasses for breakfast, corn pone and sorghum for dinner and corn meal mush and milk, with sorghum, for supper, and in what was then known as the richest corn region on earth, I have a claim to be recognized as a cornfed Westerner.

Never having been more than 10 miles from home, and having the option of a visit to the World's Fair in Philadelphia in 1876, or a trip to Kansas in a covered wagon, I chose the latter as being the greater adventure. It was a prospecting tour, made by two schoolmates and the father of one of them who was searching for a farm location, with myself as supercargo.

Thrills abounded. As we left our homes in the famous Military Tract, lying between the Illinois and the Mississippi rivers, and noted for both corn and mud, the first thrill came in a stop at Nauvoo to see the blood-stained floor in the upper room where the Mormon prophet Smith had been shot; thence on a breath-taking ferry to Keokuk, and on to a more exciting one to land in Nebraska City and reach Kansas in Nemaha county, and the Otoe Indians on their reservation.

Having grown up in a timbered country where all farms were enclosed, the vast stretches of Kansas prairie with never a fence in sight were startling. Roads were shaped more by convenience than by section lines, and one could wander off across the prairies to his destination by following the wheel-tracks in the grass.

### Fourth of July in Abilene

With a preliminary swim in the mill-pond and a night camp on Chapman creek, the Fourth of July was celebrated in Abilene, with its 8 big hotels, numerous cowboys and a great plenty of "intoxicaters." We learned that there were 20,000 cattle being herded across the river awaiting cars for shipment to market. It was near here that we saw the famous Henry wheat field of 1,200 acres, operated by the Kansas Pacific railroad as the biggest wheat field in the world and as an advertising stunt. It was in this wheat field that we learned something new.

Prairie dogs were a pest on farms and this big wheat field had a number of them. An old Irishman was employed to get rid of them, which he did by knocking both heads out of flour barrels, setting them over the dog holes and half filling them with dry sand. When a dog dug to the top of the sand he could not dig back and became an easy prey for the Irishman.

Wandering south where the wheel tracks led us along the famous Flint Hills, by Lincolnville with its stone-built store and post office, and never a

residence in sight; Peabody, where we saw the first free public library we had ever heard of, and onward to the south, replenishing our food supply of corn bread and bacon with wild ducks in the early part of the trip and young prairie chickens later, with fish at every camp stream, for the creeks had both water and fish in them at that time, and the water was clear, we made progress.

Along the established roads we were only a unit in a vast caravan of covered wagons carrying thousands who would share in the free government land, abundant to the west and still available in many of the 69 organized counties of the state. In very many cases a covered wagon carried all members of a family and all of their belongings, altho some of the more opulent had livestock, or even another wagon.

Altho it was only the second year after the great grasshopper devastation, and Eastern papers were still filled with stories of "bleeding Kansas"; and altho many of the houses were built of sod and others were mere shacks, the fine crops seen all along the way indicated a degree of prosperity. We always bought hay for our horses and quite often replenished the corn ration from the farms, as there did not seem to be any lack of old corn, and the growing crop was very promising.

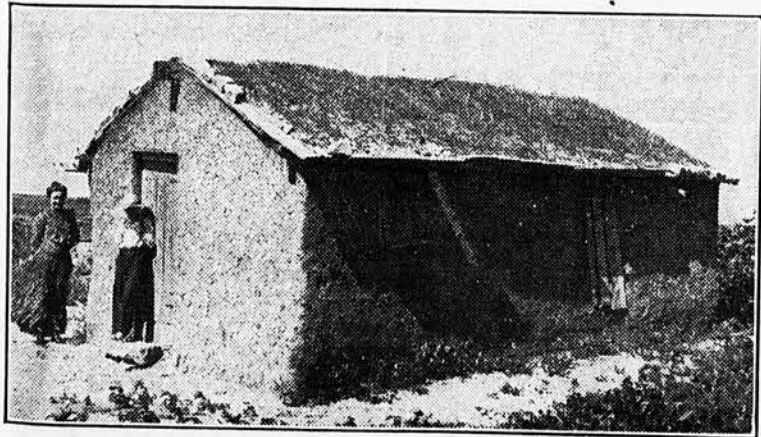
### A Crop of Buffalo Bones

Farmers often asked a little more for their corn than the market price, but then they had to sell it by the bushel rather than by the quart, and many of them gathered buffalo bones from the prairies for sale to dealers and thus eked out a scanty cash supply until the crops were made. At that time Wichita was at the end of the Santa Fe railroad to the south and the town had no other railroad. Near the depot were enormous piles of buffalo bones waiting shipment to sugar factories where they were turned into boneblack for filtering the sugar.

Wheat in Kansas was not then so much in evidence as it later became. The machinery for handling wheat was still crude, and altho the reaper had been in common use for some time, it was a clumsy affair as compared with modern machines. Threshing was done with the old rotary horsepower and the straw was stacked by hand. In fact, the cradle and flail had not entirely gone out of use for small crops.

But with corn it was a different story. Corn was universal. Wherever sod was broken, there was corn, and whether on bottom or upland it looked good, and I now find, by referring to the invaluable records of the State Board of Agriculture, that Kansas produced in 1876 a total yield of 82,308,178 bushels of corn from 1,884,454 acres, or

(Continued on Page 54)



Early settlers in Kansas made use of sod for building houses. Note grass growing on the roof of this one. Today Kansas ranks high in modern farm homes.

IT NOW COSTS **LESS**  
TO BUY THE **BEST**

# LOWER PRICES ON DE LAVAL SEPARATORS

4 sizes  
Hand or electric drives

**NEW!**

**DE LAVAL MAGNETIC "SPEEDWAY" MILKER**  
Unequaled by any other method of milking—it's the world's best, fastest and cleanest milker.

**DE LAVAL JUNIOR SERIES**  
\$21.25 AND UP

A wonderful line of low priced, smaller capacity, quality separators. Splendid machines for the small herd owner. Five sizes with or without stand. Prices are slightly higher on the Pacific Coast.

**THE DE LAVAL SEPARATOR CO., Dept. 26**  
New York, 165 Broadway  
Chicago, 427 Randolph St.  
San Francisco, 61 Beale St.

Please send me, without obligation, full information on ☐ Separator ☐ Milker ☐ check which

Name .....

Town .....

State..... R.F.D.... No. Cows...

**WORLD'S LARGEST MANUFACTURERS OF SEPARATORS AND MILKERS**

## CHAMPIONS YEAR IN AND YEAR OUT

### COLORADO Standard and Wolf-Proof FENCE

For Stock and Field Fences of Exceptional Strength

Full gauge, heavily galvanized, tightly woven, strong, springy—made of new billet, copper-bearing steel wire—

### COLORADO FENCE

*Stands for the West!*

**The Colorado Fuel and Iron Corporation**

General Offices: Denver, Colo.      Steel Works: Pueblo, Colo.

## Are You BUYING ... or SELLING?

It will pay you as a buyer or seller to watch the classified ads that are published in Kansas Farmer. Sellers of Poultry, Eggs, Cream, Hay and Grain will find reliable dealers and manufacturers giving service in these lines.

If you are buying, be sure to see the hundreds of offerings under the following headings: Baby Chicks, Poultry, Hogs, Public Sales, Horses, Mules, Milk Goats, Sheep, Dogs, Farm Machinery, Electrical Equipment, Farm Supplies, Feeds, Field Seeds, Flower Seeds, Bulbs, Garden Seeds, Nursery Stock, Fruit Plants, Vegetable Plants, Tobacco.

Other service will be found under Help Wanted, Salesmen Wanted, Educational and Photo Films.

Save both time and money by patronizing Kansas Farmer advertisers in both classified and display advertising.

Be sure to say when you write, that you are referring to advertising you saw published in Kansas Farmer.

Classified Department  
**KANSAS FARMER, TOPEKA, KAN.**



TABLE OF RATES					
Words	One time	Four times	Words	One time	Four times
10.....	.80	\$2.40	18.....	\$1.44	\$4.32
11.....	.88	2.64	19.....	1.52	4.56
12.....	.96	2.88	20.....	1.60	4.80
13.....	1.04	3.12	21.....	1.68	5.04
14.....	1.12	3.36	22.....	1.76	5.28
15.....	1.20	3.60	23.....	1.84	5.52
16.....	1.28	3.84	24.....	1.92	5.76
17.....	1.36	4.08	25.....	2.00	6.00

You will save time and correspondence by quoting selling prices in your classified advertisements.

# FARMERS MARKET

**RATES** 4 cents a word each insertion if ordered for four or more consecutive insertions; 8 issues; 10 word minimum. Count abbreviations and initials as words and your name and address as part of the advertisement. When display headlines and white space are used, charges will be based on 50 cents an agate line, or \$7 per column inch; 5 line minimum; 2 columns by 168 lines maximum. No discount for repeated insertion. Heads and signature limited to 24 point openface type. No cuts allowed. Copy must reach Topeka by Saturday preceding date of issue.

**REMITTANCE MUST ACCOMPANY YOUR ORDER**

## RELIABLE ADVERTISING

We believe all classified advertisements in this paper are reliable and we exercise the utmost care in accepting such advertising. However, as practically everything advertised has no fixed market value, we cannot guarantee satisfaction. In cases of honest dispute we will endeavor to bring about satisfactory adjustment, but our responsibility ends with such action.

**PUBLICATION DATES:** Every other Saturday. Forms close 10 days in advance.

### BABY CHICKS

Coombs Rop Leghorn Chicks. Get better livability; higher egg production. Raise top-notchers this coming year. Save 10 per cent early discount on advance orders. Easy payments; if desired. Chicks, 250-320 Egg Sired. Hatching weekly. New Bulletin: "Management of the Layers and Breeders." Free catalog. Write today. Coombs and Son, Box 6, Sedgwick, Kan.

Booth's Famous Chicks. Strong, healthy, quick growing. Excellent layers. From one of America's greatest breeding institutions. 10 varieties. Also sexed chicks. Reduced prices. Free catalog. Booth Farms, Box 911, Clinton, Mo.

### CROSS-BREDS

Immunized Sunflower Strain Hybrids. Write for catalog telling how two high producing breeds of seven most profitable hybrids are crossed and serviced by experienced poultrymen. Sunflower Hatchery, Box 885, Newton, Kansas.

### POULTRY PRODUCTS WANTED

Eggs, Broilers, Hens Wanted. Coops loaned free. The Copes, Topeka.

### PLANTS—NURSERY STOCK

Chinese Elm Bargains 100—1 to 1 1/2 foot for \$1.25 postpaid; 35—2 to 3 foot for \$1.00 postpaid; 15—3 to 4 foot for \$1.00 postpaid; 8—4 to 6 foot for \$1.00 postpaid. Strawberry plants (supply limited). 200 in either Dunlap or Blake-more for \$1.00 postpaid. Write for color price list of other bargains. Sarber Nursery Company 3100 West 10th, Topeka, Kansas.

Roses—2 Year, Field Grown. Red, Pink, Shell Radiance, Talsman, Pres. Hoover, Sunburst, Etiole Holland, Columbia, Luxembourg, Caledonia, Braireliff. All 19c each postpaid. Ship C.O.D. Catalog free. Naughton Farms, Waxahachie, Texas.

Thin-Shell Black Walnuts. Rapid growers, beautiful shades; bear 2nd year. Nuts large, easily cracked. Catalog free. Corsicana Nursery, Corsicana, Texas.

### SEED

Hybrid Seed Corn, Missouri No. 8. Certified Club Kafir and Flynn Barley. Harold Staadt Seed Farm, Ottawa, Kan.

### ELECTRIC FENCE

Super Leads Field in Electric Fencing. See our new line of 6 Volt and 110 Volt controllers. Latest developments in electric fencing exclusive with Super. Precision built for economy and long life. 5 year guarantee. Free booklet. Distributors, dealers wanted. Super Fence, AK-1510 Wabash, Chicago.

Make Big Money as Farmak Dealer for world's largest selling Electric Fence; 5 models, \$9.90 up. 30-day trial. Safety State approved. Exclusive territories available. Write for free catalog. Parker-McCrory Mfg Co., 47NX, Kansas City, Mo.

### BATTERIES AND LIGHT PLANTS

Edison Storage Batteries for lighting and power. Non-acid. Odorless. Fifteen year life. Five year unconditional guarantee. Reasonably priced. Tremendous savings in battery and light plant combinations. Free illustrated literature. See-Jay Co., 72 Sterling Ave., Yonkers, N. Y.

Genuine Edison Storage Batteries for farm light plants. Also full line of wind chargers. Rocky Mountain Air-Lite, 2590 South Broadway, Denver, Colo.

### DOGS

English Shepherd Puppies. Spayed females. E. J. Barnes, Collier, Kan.

### MACHINERY

Fords Portable Hammermill Operators make regular weekly net earnings, \$50, \$75, \$100 and more. Fords' exclusive Molasses Impregnator gives operators big competitive advantage. Equipment may be purchased 25% down, balance from earnings. Write for particulars about this safe, sure, profitable year-round business. Myers-Sherman Company, 1414 12th, Streator, Ill.

For Sale: Oliver (Nichols-Sheppard) 16 foot, Model D combine, A-1 condition. Bargain if sold immediately. Also Model 30 Caterpillar tractor. C. Morgan, Fairview, Kan.

Sawmill for Sale or Trade: 40 Steamer Deloach 3 block mill, 100 ft. belt in order. Geo. Launders, Yates Center, Kan.

McCormick-Deering tractor-driven corn sheller, good condition; \$150.00. O. Herman, Brookville, Kan.

No. 10 John Deere Cylinder Corn Picker, truck mounted. B. W. Lofton, Cedar Bluffs, Kan.

### FEED GRINDERS

Fords Saves from 20% to 50% on your feed! Grind your own grain, hay, roughage, with strong, sturdy, large size, fast grinding Fords Hammermill. All steel, electric welded; timkin bearings. Thousands satisfied users. Write for free circular, low prices. Myers-Sherman Co. 1506 12th, Streator, Illinois.

### ELECTRICAL SUPPLIES

Electricity is a Kilowatt with Katolight Diesels; 110 AC standby generators and plants. Generator rewinding. Katolight, Mankato, Minn.

### TRACTOR REPAIRS

Used Parts for All Make wheel tractors. Write for prices on parts you need. Tractor Salvage Co., Salina, Kansas.

### MILKING MACHINES

For Better, Cleaner, Faster, more economical milking, write today for free circular, low prices. Easy terms on new, improved Fords Milkers. Cleans automatically. Streamlined portable or track models. Electric or gasoline. Fully guaranteed. Thousands satisfied users. Myers-Sherman Co., 1340 12th, Streator, Illinois.

### COMMISSION FIRMS

For Sixty-Six Years Chicago's oldest turkey house has served farmers and shippers with the finest year-around outlet for their dressed turkeys, capons, geese, ducks, chickens, and veal. Recently reduced shipping rates assure larger profits by shipping direct to us. Write immediately for low-cost shipping information, latest prices, tags, references, and dressing booklet to Coughle Commission Company, 1133 W. Randolph, Chicago, Illinois.

### LIVESTOCK REMEDIES

Abortion Protection One Vaccination. Government licensed vaccine; money back guarantee. Free literature. Farmers Vaccine Supply Company, Dept. P, Kansas City, Missouri.

### PATENT ATTORNEYS

Inventors—Time Counts—Don't risk delay in patenting your invention. Write for new 48-page free book. No charge for preliminary information. Clarence A. O'Brien, Registered Patent Attorney, Dept. 9L19, Adams Building, Washington, D. C.

Patents, Booklet and Advice Free. Watson E. Coleman, Patent Lawyer, 724 9th St., Washington, D. C.

### PHOTO FINISHING

Don't Be Fooled by ridiculous offers. You get exactly what you pay for. Superfoto Special Fadeproof Automatically Controlled developing positively guarantees proper handling and sharper, clearer, lifetime prints. Try Superfoto once. See the big difference. Films developed and printed only 25c. Free enlargement with each roll. One day service. Superfoto Films, Box 53, Kansas City, Mo.

16 Prints—2 Free enlargements. Special, get-acquainted offer; any 6 to 16 exposure roll developed and printed with beautiful, guaranteed never-fade prints and 2 free enlargements 25c. Dean Studios, Dept. 2018, Omaha, Nebr.

Free! Best Snapshot on attractive photo button with 16 prints each roll 25c. Beautiful novelty premiums. Novel-Ad Company, AT3327 North Ave., Chicago

Rolls Developed—Two beautiful double weight professional enlargements, 8 Never Fade prints, 25c. Century Photo Service, LaCrosse, Wisconsin.

Rolls Developed, two prints each and two free enlargement coupons, 25c; reprints, 2c each; 100 or more, 1c. Summers' Studio, Unionville, Mo.

Enlargement Free, eight brilliant border prints and your roll developed 25c. Camera Company, Oklahoma City, Okla.

Roll Developed, 8 prints, painted enlargements, 25c. Reprints, 3c. Fast service. Janesville Film Service, Janesville, Wis.

Life-time Photo Finishing—Roll developed, 8 prints, 2 enlargements 25c. Life Photos, Hutchinson, Kansas.

Guaranteed, 20 prints 25c. Roll developed, 1c prints 25c. Quality Photo, Hutchinson, Kan.

Roll Developed, 16 guaranteed prints, 25c. Smart Photo, Winona, Minnesota.

### EDUCATIONAL

No school advertising under this heading has any connection with the government.

Real Jobs Open—Equip yourself by learning Auto and Diesel, Welding, Body and Fender quickly! Real opportunity for real job. Write nearest school for low tuition rates. Information free. Dept. C-5, McSweeney, Kansas City, Missouri.

Auto Mechanics, Diesel, body, fender repairing, welding. Low rates. Stevenson's, 2008-1 Main, Kansas City, Missouri.

### AUCTION SCHOOLS

McKelvie Auctioneering and Radiocasting College. Learn by conducting sales at large cattle sales pavilion. Term starting soon. Get particulars and low cost. Write today, P. O. Box 188-C, Council Bluffs, Iowa.

\$100 Day Auctioneering. Term soon, free catalog. Reich Auction School, Austin, Minn.

American Auction College, 34th year. 4,400 graduates. Write, Kansas City, Mo.

### TRAPPERS

Trap Fox or Coyote; Bunch System gets the sly ones. Results or no pay. Q. Bunch, Welch, Minnesota, Box P.

### FISH BAIT

Fish Bait—Over 20 recipes and suggestions—10c. Fisherman, 1715 Lane, Topeka, Kan.

### FENCE POSTS

Fifty Thousand Osage Orange Posts; straight, second growth; all sizes. Ask for price list. C. E. Friend, Corning, Kan.

### TOBACCO

Kentucky's Special—Guaranteed best mild smoking or red chewing. 12 pounds \$1.00. Recipe, flavoring, box plugs free. Valley Farms, Murray, Kentucky.

### BUILDING MATERIAL

Save Money—Guaranteed Lumber, shingles, housebills shipped direct. Write Robert Emerson Company, Tacoma, Washington.

### BURGLAR ALARMS

Protect Your Chicken House from thieves. Newly invented burglar alarm. No batteries, no electricity. Loud gong, works like a clock. Complete with instructions, only \$3.50. Sent C. O. D. The Night Watch Burglar Alarm Co., 1305 Wayne Avenue, Topeka, Kansas. Agents wanted.

### RADIO

Electric and Battery Radios for the farm and town. Open territory. Dealers write today. L'Atro Manufacturing Company, Decorah, Iowa.

### SPARROW TRAPS

Sparrow Trap—Get rid of these pests. Any boy can make one. Plans 10c. Sparrowman, 1715-A Lane St., Topeka, Kan.

### SILK HOSIERY

Beautiful Silk Hosiery—Five pairs \$1.00. (Trial 25c) Drex, KF 221 W Broad, Savannah, Ga.

### HONEY

Best Quality Clover Honey; sixty pound can \$4.50. Clifford Overbaugh, Frankfort, Kan.

### MISCELLANEOUS

Wanted: Farmers to use Ruhn's Phosphate; best, cheapest source of phosphorus everywhere. Write to S. D. W. Emmons, McCune, Kan., for full information, or Ruhn Phosphate Co., Mt. Pleasant, Tenn.

### LAND—KANSAS

Buy a Kansas Farm where real profits can be made. Wide selection available at actual values. Small payment down. Long terms. Low rates. Take advantage of Federal Land Bank values and be assured of opportunity to make farming pay. Also productive Colorado, Oklahoma, New Mexico farms available. Write today for descriptions, naming state interested in. Federal Land Bank, Wichita, Kansas.

Forty Acres, Near Emporia, on all weather road, 6 rooms, good barn, poultry houses, good land bargain at \$2,250. T. E. Godey, Emporia, Kan.

Farms, All Prices, in one of the best counties in the state. No trades. B. W. Stewart, Abilene, Kan.

### LAND—MISCELLANEOUS

Good Farms Available. Washington, Minnesota, Idaho, Western Montana, Oregon. Dependable crops, favorable climate. Write for impartial advice, literature and list of typical bargains. Specify state. J. W. Haw, 81 Northern Pacific Ry., St. Paul, Minnesota.

### REAL ESTATE SERVICE

Sell Your Property quickly for cash, no matter where located. Particulars free. Real Estate Salesmen Co., Dept. 510, Lincoln, Neb.

## BETTER CATTLE

### Have Resulted From Cow-Testing Work

By JAMES W. LINN  
Kansas State College

**B**ACK in 1905, Michigan started the Cow-Testing Associations in the United States. The work reached Kansas as early as 1912 when O. E. Reed, formerly head of the dairy husbandry department at Kansas State College and now the Chief of the Bureau of Dairy Industry, United States Department of Agriculture, Washington, D. C., started an association in Dickinson county where, at that time, the most progressive breeders and the most intense dairy interest seemed to be centered.

From its beginning in 1912, there was a gradual growth in cow-testing association work, which finally reached the peak in 1929 when there were 25 associations within the Sunflower State.

Difficulties of the years that followed 1929 reduced the number of associations until they finally reached a low of 12, with the membership

scattered in virtually one-half of the state. Today, we find two-thirds of the state reached by association work with 16 associations. The rise and fall of the association work has been interesting, but even more interesting is the story of the work accomplished during these years.

When cow-testing association work began, it was merely a means of keeping a record on a cow and of her milk and butterfat production with slight emphasis being paid to the feed costs. Much of the emphasis was placed on the added sale value of the animals rather than on a herd-building program. Members in the work and added values that have come into the work grew as time went on with the greatest progress since 1935.

Changes in the program and the worth-whileness of the work began as early as the early 20's. Among the first steps taken in the progress was

that of not only having the individual cow's record but also herd averages and average feed costs within the herd. To this was added a program of gaining more definite knowledge about the herds in other respects, such as proving the herd sire.

A proved herd sire as the term is known in Dairy Herd Improvement Association work is one for which there have been records reported on 5 daughter and dam comparisons, so that a comparison can be made of their producing ability. The records show the increase or decrease in milk production, fat percentage, and fat production, so that a proved sire may be one that has increased or decreased production, depending upon his inheritance and whatever other factors may have been included.

By June, 1938, there were 226 proved herd sires in Kansas. Proved-sire work has made more rapid progress in recent years, however, with 1939 being a banner year in that respect with the first 6 months showing 49 sires proved.

About the time bulls were beginning to be proved, a general feeling grew up thruout many states indicating that the name "cow-testing association" did not tell the complete story of all of the work that was being done by the cow-tester and the association,

so in February, 1928, the name was changed to Dairy Herd Improvement Association.

During this time came a feeling that proving bulls was just one of the necessary things for herd building, and that it was also essential to know about the cow families. Today, it is possible not only to prove herd sires but also the cow families.

These 2 programs working together have brought into the picture the question of a herd analysis; so when there are 3 or more proved bulls in one herd, that herd receives from the Bureau of Dairy Industry, thru the State Extension Service, a copy of an analysis showing not only the successes and failures of the different herd sires in the different cow families, but also their relationship to each other in the success and failure within the breeding program of the herd.

Breeders in Kansas were not satisfied with just information on the producing herd, but asked for an added service which would make the record more complete and worthwhile. In December, 1935, each breeder who chose could not only have a record kept on his herd, but also could have assistance on a farm management program that tells, in addition to the information obtained before, the story

(Continued on Page 52)



Editors of **CAPPER**  
*Dear Editor* **PUBLICATIONS, Inc.**  
 Receive a Million Letters a Year!

WHEN you four million readers write more than 1,000,000 letters to editorial departments of Capper Publications, Inc., in one year, that means you like and believe in our papers and magazines.

We're glad you do—we work hard to make sure that you will. More than 100 skilled employees, organized into 9 separate editorial departments, are responsible for editing and writing the articles and other material which you receive in each issue of your favorite Capper publication.

Each editor is free to bring to his readers the material which he believes to be most important and most valuable to them. There is no strict "editorial policy" to rule each editor. The fundamental command is: "Make your publication so it will best serve its readers."

For example, 10 years ago 50% of the baby chicks hatched failed to live. A Capper editor heard of a new chick raising procedure which was producing astounding results. Details of this new "Hendriks Method" were published in Kansas Farmer and put into immediate use. Today this method has reduced chick losses to less than 10% for those who use it. Just another way in which Capper editors add the "extra" value to each publication! And just another reason why folks feel friendly enough with Capper editors to write them 1,000,000 letters per year (not counting the thousands of letters written to Capper radio stations)!



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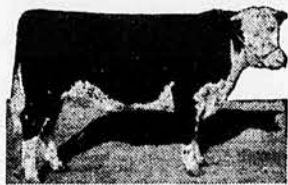
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# Council Grove Sale and Show

## 50 Registered Herefords



Selected from a dozen leading herds of the territory, featuring a great lot of CALVES and YEARLINGS.

20 BULLS—Suited to head purebred and commercial herds.  
30 BRED AND OPEN HEIFERS—For herd building and 4-H and Vocational Agriculture.

CONSIGNORS  
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Sale in COUNCIL GROVE SALE PAVILION

**Council Grove, Kan., Wednesday, Nov. 15**

For Catalog Address D. Z. McCORMICK, Secretary,  
Morris County Hereford Breeders' Association, Council Grove, Kan.

# Northwest Kansas Hereford Breeders

ANNUAL SALE—IN PAVILION

**Atwood, Kan., Friday, Nov. 10**

**64 SELECTED BULLS and FEMALES**

Consignments from seven counties of the territory. 32 Bulls, 32 Females.

For catalog write

H. A. Rogers, Sale Mgr., Atwood, Kan.  
Aucts.: Fred Reppert, Earnest Sherlock  
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Henry J. Wicke, Ludell  
J. N. Simminger, Atwood  
Earl Sutor & Son, Zurich  
J. M. Williams & Son, Jennings  
Jansonius Bros., Prairie View  
Rothschuld Farms, Norton

HEREFORD CATTLE

# Blue Valley Hereford Auction

will be held on the ranch near town  
**Thursday, November 23**

35 head of selected individuals, Bulls, Cows with calves, bred and open Heifers. Females suited for foundation laying and one 2-year-old Bull of special quality and breeding, also a full brother a year old. Herd established 50 years ago. See next issue of Kansas Farmer for more details.

**FRED R. COTTRELL**  
Irving (Marshall Co.), Kan.  
Jas. T. McCulloch, Auctioneer

AYRSHIRE CATTLE

# Yearling Ayrshire Bull

for sale. His dam a 7-gallon cow and sired by a top Kansas bull. Calf a good individual.

G. D. BOARDMAN, BENNINGTON, KAN.

DAIRY CATTLE

# FANCY DAIRY HEIFERS

\$8.00, \$10.00 and \$15.00. Registered Bull \$25.00. Shawnee Dairy Cattle Co., San Antonio and Dallas Write Box 5313, Dallas, Texas

BERKSHIRE HOGS

# Berkshire Boars for Sale

Best of type and breeding. Priced for quick sale. Purebreds.

DAVE R. STUCKY, McPHERSON, KAN.

# Livestock Advertising Copy

Should Be Addressed to

**Kansas Farmer**  
Livestock Advertising Dept.,  
**Topeka, Kansas**

Kansas Farmer is published every other week on Saturday and copy must be mailed to reach the Kansas Farmer office not later than one week in advance of publication date.

Because we maintain a livestock advertising department and because of our very low livestock advertising rate we do not carry livestock advertising on our Farmers' Market page.

If you have purchased livestock for sale write us for our special low livestock advertising rate. If you are planning a public sale write us immediately for our

SPECIAL PUBLIC SALE SERVICE

**KANSAS FARMER**  
**Topeka, Kansas**

Jesse R. Johnson, Manager,  
Livestock Advertising Department

POLAND CHINA HOGS

# Ohara's Poland Chinas

We offer Spring Boars whose litter brothers were market topping barrows at less than 6 months, their dams have consistently produced large litters combining show yard quality and outstanding feedlot performance. Also Spring Gilts and Fall Pigs.

DWIGHT ROBB, Mgr., SYLVIA, KAN.

# 25 Poland China Boars

Medium type, well grown and sired by two good boars. Priced at \$25.

HERMAN GRONINGER, BENDENA, KAN.

# Boars Boars Boars Boars

Choice ones, Mischief Mixer and Top Row breeding. The big uniform litter, easy feeding kind. Priced to sell at once.

A. L. Wiswell & Son, Olathe, Kan.

BETTER FEEDING POLANDS

Fall Pigs, with width, depth and easy feeding quality. On shorter legs. If you have been disappointed in finding this kind, come and see our herd.

F. E. Wittum & Son, Caldwell, Kan.

SPOTTED POLAND CHINA HOGS



# BROWN'S SPOTTED POLAND BOARS

20 of the easy feeding kind, our tops of the spring crop. Vaccinated and reg. Priced right.

D. W. BROWN, Valley Center, Kansas

DUROC JERSEY HOGS

# 195 Superior Spring Pigs

of Royal blood, 33 years a breeder of fancy heavy boned, shorter legged, medium type Durocs. Now on sale—dozens of good Boars; immuned, shipped on approval. Registered, catalog, photos. Come or write me your needs.

W. R. HUSTON, AMERICUS, KAN.

# Hook & Sons' Durocs

Now offering a splendid lot of Spring Boars and Cows, one Yearling Boar; all Champion bred. Registered, immuned.

BEN HOOK & SONS, SILVER LAKE, KAN.

# MILLER'S DUROCS

Registered and immuned Spring Boars shipped on approval. The short-legged, heavy bodied, dark red, quick-fattening kind. Photos furnished. CLARENCE MILLER, ALMA, KAN.

HAMPSHIRE HOGS

# HAMPSHIRE BRED GILTS

Young Sows; well grown Fall Gilts bred to farrow in September and October; registered and immuned; Sows that have had one litter. Bred to Cimmarian; son of Cimmarian; and to Silversmith, fall son of Silver Clan. Buy the best where only the best breeding stock is used. Quigley Hampshire Farms, Williamstown, Kan. Mail address: St. Marys, Kan.

# Spring Boars and Gilts

picked from 300 head. Sired by a son of HIGH SCORE. Also others by KING FLASH and FANCY EMBLEM. Vaccinated and ready to go. Inspection invited.

C. E. McCLURE, REPUBLIC, KAN.

# REGISTERED BOARS-GILTS

Registered Hampshire Boars and Gilts. Some from the first prize litters at the State Fair. Reasonable prices.

N. H. ANGLE & SON, COURTLAND, KAN.

# Better Cattle

(Continued from Page 50)

of each enterprise and its relationship to the success of the entire farm program.

When this program was adopted, the name of the association was changed to Dairy Farm Record Association, a name which expresses the breadth and usefulness of a complete record on the dairy herd and its relationship to every other farm enterprise.

The 16 Dairy Farm Record Associations in Kansas today are not promoted programs. Few of the members have been asked to join and most of them have asked for the privilege of being members. Altho the work costs about \$40 a year in cash, the improvement in the herds and on the farms where the complete service is being carried is, in most cases, worth so much that the membership is increasing at a rate that is making necessary the division of associations each year.

Evidence that members of these associations get results in production is found in the fact that cows entered in the Dairy Farm Record Association averaged more than 300 pounds of butterfat last year. This is more than double the average production of all milk cows in the state.

—KF—

# Boys Learn Credit Use

"Farm boys and girls are gaining practical knowledge of the use of credit in farm business in financing their livestock projects thru production credit association loans," D. L. Mullendore, president of the Production Credit Corporation of Wichita, said recently. Under the sponsorship and guidance of farm agents, vocational agriculture teachers, and farm leaders in the district, 4-H Club, and Future Farmer members of Kansas used \$15,262 to finance livestock projects in 1938. Loans of \$15,213 outstanding as of October 9, 1939, indicate the total credit used this year will show a material increase.

—KF—

# Must Plant Wheat

The Kansas AAA Conservation Committee has ruled wheat crop insurance loss payments would not be issued to

farmers who fail to seed wheat this fall because of dry soil.

Farmers from Western counties, in the grip of a serious dry spell, have inquired whether they would be required to seed their fields to be eligible for insurance payments, arguing that to drill wheat in the dry soil would be a waste of time, effort, and seed. Some have offered to pay the crop insurance corporation the cost of seeding if the corporation would settle for a total loss without the wheat being planted. E. H. Leker, state executive officer, ruled the wheat must be planted before the insurance can be in effect.

—KF—

# Trees Laid By

Most of the huge store of tree seeds, seedlings, and saplings, which will go into 800 miles of new shelterbelt in 47 Central and Western counties of Kansas next spring, has been laid by. An average of 460 men have been employed on the United States Forest Service-WPA project since July 1. Planting will begin next March and continue until about May 1. When it has been completed the state will have about 2,700 miles of shelterbelt on about 4,600 farms.

—KF—

# Sugar Crop Smaller

Southwestern Kansas' sugar crop will be considerably smaller this year than last. E. Stoeckly, superintendent of the Garden City Sugar Company plant, said the sugar beet crop would be between 50,000 and 55,000 tons, compared with 75,000 tons in 1938. Harvesting started October 23, with the refining plants opening 2 days later. Plants will be in operation 45 to 50 days.

# IN THE FIELD

Jesse R. Johnson  
Topeka, Kansas



DAVE R. STUCKY, of McPherson, has one of the good small herds of purebred Berkshires of his part of the state.

F. E. WITTUM AND SONS, Poland China breeders of Caldwell, say they have a great lot of the short-legged, wider type fall pigs. They are the most satisfactory lot they so far have had farrowed on the farm. They are sending out boars and gilts right now.

FRED R. COTTRELL, of Irving, will hold his annual sale of registered Herefords on November 23. Mr. Cottrell founded his Hereford herd more than 50 years ago. He has used Hazlett bulls for several years. See next issue of Kansas Farmer. Write him now for catalog.

N. A. DAVIS, of Trenton, Neb., has one of the good Polled Shorthorn herds of his state. His herd bull, Golden Thicket, comes from a line of cows with good milk records and the cows in the Davis herd are heavy milkers. Still they are the lowest thick kind. Trenton is in Southwestern Nebraska, not far from Kansas.

Burger consignment to the NORTHEAST KANSAS HOLSTEIN SALE will include 5 daughters of Duke Ormsby Beauty Korndyke, which daughters have shown the greatest increase over dams of any bull ever proved in Kansas. This sale will be held on the Collins farm north of Sabetha, Thursday, November 16.

LEO F. BREEDEN, Great Bend, well known Milking Shorthorn breeder and former owner of the great bull, Otis Chieftain, is moving forward steadily. He has a bull now in service that is a son of an imported bull of the best English breeding. Great things are expected with this cross on Otis Chieftain heifers.

There is a certain uniformity of type and production in the kind of Holsteins grown and developed at SUNNYMEDE FARM, Topeka. Proved sires and high record cows breed true, and bulls that go out from this herd are herd builders. C. L. E. Edwards, owner of the herd, does business on the proved and successful policy of always giving value for what he sells.

HOSTETER ENGLE, of Abilene, will disperse his herd of high and registered Holsteins on Thursday, November 9, the sale to be held on the farm 7 miles southwest of town. The Engle herd is one of the oldest and strongest herds of high producing Holsteins in Kansas, and this sale will afford an unusual opportunity for dairymen and others in need of milk cows. Thirty head will be fresh, or near calving, sale day.

A dozen leading Hereford breeders are consigning selected yearlings and calves to the ANNUAL HEREFORD SALE AND SHOW to be held at Council Grove, Kan., Wednesday, November 15. Consignments are equal or better than in previous year. Herds are larger, and it

NORTHEAST HOLSTEIN BREEDERS SALE will be held at Sabetha, November 16, instead of on date previously announced in this paper.



is easier to find more choice animals for the sales. Consignors are regular breeders and anxious to establish reputations, so they can hardly afford to sell inferior stock in the above sale. Write for catalog to D. Z. McCormick, secretary, Council Grove, Kan.

**A. P. UNRUH AND SON**, of Moundridge, were heavy buyers at the Southeast Guernsey sale on September 28. Among their best buys were a pair of outstanding heifers. One is a granddaughter and the other a double granddaughter of the noted Bournedale Rex. With a great son of Bournedale Rex in service, this firm embarks on a program of line breeding that promises the best of results. In undertaking the above program increased production seems certain along with better and more uniform Guernsey type. The Unruh Guernseys made an excellent showing at local fairs this fall.

**ERNEST MOECK-BYRON LOVE JERSEY SALE**, to be held at the Moeck farm on Highway 71 (city route), south from St. Joseph, will be of interest to Kansas, as well as Missouri, dairy cattlemen. Byron Love, of Camden Point, has been building a good herd of Jerseys for years, and in this sale his complete milking herd sells. Many have purchased cattle from Ernest Moeck and the good account they have given of

**HARRY GIVENS**, Duroc breeder of Manhattan, writes as follows: "The first requirement in the livestock business is good stock; then advertise them in Kansas Farmer. I received a number of inquiries long after the first advertisement appeared. The first buyer that came to the farm bought the entire offering of 20 gilts."

themselves will encourage those wanting registered Jerseys with good production and correct type to attend this sale. November 8 is the date set for this sale, and those wishing a catalog should write at once to Ivan N. Gates, West Liberty, Ia., who is sales manager.

**H. A. ROGERS**, sale manager for the **NORTH-WEST HEREFORD BREEDERS**, announces an annual sale, to be held in Atwood, Friday, November 10. Fifteen leading breeders, residing in 7 counties of Northwest Kansas, are consigning. A great selection of 32 females and 32 bulls make up the sale. Write for catalog and mention Kansas Farmer.

**H. C. "CLAUDE" McKELVIE**, formerly of Lincoln, Neb., now of Council Bluffs, Ia., has probably selected and sold more good high-producing Wisconsin cows than any other man in either state. He opens the fall sales on Monday, November 13, with 100 Wisconsin Guernseys, largely composed of cows in milk or close up springers. The sale will be held at the Iowa-Nebraska sale yards in Council Bluffs. The cattle will be on exhibition, and the public is invited to be on hand for milking trials the day before sale. This will be an unusual opportunity to secure high-producing Guernseys. Write for catalog to H. C. McKelvie, Box 188, Council Bluffs, Ia. Mention Kansas Farmer.

**NORTHEAST KANSAS** is second to no territory in the entire country from the standpoint of numbers, quality, and production of Holstein cattle. Consignment sales from these herds always create unusual interest in Kansas and adjoining states. Their annual sale will be held near Sabetha, November 16, instead of another date claimed in last issue of this paper. The sale will be held on the Harvey Bechtelheimer farm, formerly the Collins farm, about 4 miles north of town on Highway 75. Nine outstanding herds of the territory have been drawn on for the 65 head that sell. No better lot of good, useful Holsteins will sell this season. Remember the date, Thursday, November 16. For catalog, write W. H. Mott, Herington, and mention Kansas Farmer.

Highest priced bull in the **NORTH CENTRAL KANSAS HOLSTEIN SALE** went to Fred Shaver, Jewell City, at \$140. Top cow was purchased by Nick Heitschmidt, of Natoma; the price was \$187.50. Forty-nine head sold for a general average of \$101; this included baby calves and grade cows. The females averaged \$107 a head, bulls \$88. The top cow came from the H. J. Meierkord herd, and Kenneth Phillips, of Manhattan, consigned the top-selling bull. The highest priced grade cow brought \$112, consigned by Clarence Hinck, of Linn, and was bought by Nick Heitschmidt. A yearling heifer topped her class and was bought by Orval Stephens, of Belleville. She also came from the Meierkord herd. She sold for \$126. Jas. T. McCulloch did the selling, assisted by local auctioneers.

**ROY G. JOHNSTON**, of Belton, has been engaged to conduct the **SECURITY BENEFIT JERSEY CATTLE DISPERSION**, to be held on the Topeka Free Fair grounds, Thursday, November 9. The offering of 44 head comprise registered cattle descended from such great sires as Design's Fern Oxford, and Right Royal. The herd has been on test since its establishment in 1932. Register of Merit and A. J. C. C. herd improvement tests. Much care was used in the selection of both type and bloodlines when the herd was established. Everything was purchased subject to retests for both TB and Bang's and there has never been a reactor in the herd since its establishment. Parties wishing to buy may, if unable to attend, send bids in care of J. M. Kirkpatrick, S. B. A. Building, Topeka, to sale manager, auctioneers, or fieldmen.

Spring boars and gilts sold at prices ranging from \$20 to \$120 in the **BAUER POLAND CHINA SALE** at Gladstone, Neb., October 13. The top boar went to W. A. Davidson and Son, of Simpson, Kan., at \$120. Friendly Fellow was his name and he was junior champion boar at Missouri State Fair last fall and first in his class in Nebraska. The top gilt went to Kansas, O'Brien Bros., of Parsons. Twenty head of the 42 sold came to Kansas, and every animal selling above \$50 was purchased by Kansas buyers. Among them Tony Sump, Randolph; Carl Swenson, Concordia; Walter Johannes, Marysville; Hyatte Bros., Hutchinson; Kenneth Touburen, Cleburne; D. McKenzie, Wayne; Clyde Miller, Mahaska; H. B. Walter, Bendena; James Arkell, Junction City; Mr. Collins, Lawrence; Faye Lerchlitter, Clayton, and others. The get of State Fair was in great demand. Bert Powell was the auctioneer.

—KF—

## Public Sales of Livestock

**Shorthorn Cattle**  
November 11—Tomson Bros., Wakarusa.  
**Guernsey Cattle**  
November 6—Central Kansas Guernsey Breeders Assn., Salina. Roy E. Dillard, manager, Salina.  
November 13—Special sale Wisconsin cattle, Nebraska sale yards, Council Bluffs, Ia. H. C. McKelvie, sale manager.  
November 14—Jenkins Bros., Linwood. Sale at Kansas Free Fair grounds, Topeka.  
**Herefords**  
November 10—Northwest Kansas Hereford Breeders, H. A. Rogers, sale manager, Atwood.  
November 15—Morris County Hereford Breeders Association, Council Grove. Dewey McCormick, secretary.  
November 23—Fred R. Cottrell, Irving.  
**Jersey Cattle**  
November 8—Ernest Moeck and others St. Joseph, Mo.  
November 9—J. M. Kirkpatrick, Dispersion Sale, Free Fair Cattle Pavilion, Topeka.  
**Holstein Cattle**  
November 9—Hosteter Engle, Abilene.  
November 16—Northeast Kansas Holstein Breeders, Sabetha. W. H. Mott, sale manager.

## NORTHEAST KANSAS HOLSTEIN BREEDERS' SALE

Sale Starts at 11:00 a. m. at the Old Collins Farm, 4 Miles North of

**Sabetha, Kan., Thursday, November 16**

**65 HEAD OF REGISTERED AND GRADE HOLSTEINS**

A large percentage of them Fresh Cows and Close Springers—A large number with production records or from proven production backing.

All Tested for Tb. and Bang's Disease—Individual Certificates if Desired

Some Representative Consignments:

8 head from the outstanding Northeast Kansas herd of Tonnes Torkelson of Everest. Torkelson, with Grover Meyer, is sending 10 daughters of the great Posch bull, whose dam heads the Kansas state record for production in the 2-year-old class. Several of these daughters are bred to the Torkelson sire, King Bessie Prospector, one of the best bred bulls that ever came to Kansas. There are also sons of this sire.  
10 head from the Mrs. H. D. Burger herd of Sabetha, among them—4 cows with records from 400 to 569 lbs. of butterfat, and 5 daughters of their Duke bull, whose increased production over their dams was 223 lbs. of fat.  
10 head from Harvey Bechtelheimer herd, 5 daughters of King Bess DeKol Conductor from record dams with 404 lbs. as 3-year-old records to 537 lbs. at mature age.  
10 head from Grover Meyer, selected animals with type, size and production. Cows, heifers and young sires from record dams.  
7 head from C. F. Fickel & Sons. These are show cattle, among them the Grand Champion cow at Hutchinson, Oklahoma City and Tulsa State Fairs for 1933, and a winner everywhere in the shows this year.  
Other consignors who are sending choice selections are: L. B. Straham, of Sabetha; F. R. Fouth, of Reserve; and Albert Ackerman, of Sabetha.  
A fine lot of grade cows and heifers from F. R. Fouth; Albert Gregg, of Hiawatha; and Carl Fults, of Horton.

**15 BULLS IN THE SALE . . . YOUR OPPORTUNITY TO BUY RECORD SIRE**

Write today for Catalog to

**W. H. MOTT, Sales Manager, HERINGTON, KAN.**

Clerk of Sale: G. R. Sewell

Auctioneers: McCulloch, Powell and Tober  
Jesse R. Johnson, Kansas Farmer

## REGISTERED GUERNSEY DISPERSAL SALE

Show Pavilion, Fair Grounds, 10 a. m.

**Topeka, Kansas, Tuesday, November 14, 1939**

Offering the JENKINS HERD of 115 Head—Cows, Heifers, Calves, Young Bulls and these 3 Herd Sires

1. **HILLTOP BUTTERFAT JEWELL No. 210554**  
His 10 nearest dams average 15,398 lbs. Milk, 816 lbs. Fat.  
Sire—Hilltop Butterfat Golden Noble.  
Dam—Hilltop Butterfat Maid No. 265849.  
(A World Record Cow)  
2. **MEADOW LODGE KING'S PLAYBOY No. 238411**  
His 10 nearest dams average 18,773 lbs. Milk, 626 lbs. Fat.  
Sire—Bethany Rose King No. 217423  
Dam—Antietam Butterfat, Victorine No. 419912.  
(12,114 lbs. Milk, 619 lbs. Fat—Class D)  
3. **MEADOW LODGE REX'S DICTATOR No. 261427**  
His 10 nearest dams average 15,075 lbs. Milk, 765 lbs. Fat.  
Sire—Bournedale Rex No. 159247.  
Dam—Alfalfa Farm Honeymoon No. 397740.  
(2-year-old record—635 lbs. Fat.)  
Paternal sister to Alfalfa Farm Flute—960 lbs. Fat.  
Cattle for the LARGE HERD and for the SMALL FARM BREEDER. We have devoted eight years, culling and building this herd, always striving to improve the type, yet keeping in mind "a pail of milk from a good udder." Catalog upon request. Negative to Tb. and Bang's Test.

**JENKINS GUERNSEY FARM, LINWOOD, KAN.**

Auctioneers: Boyd Newcom, Bert Powell, E. E. Germain  
Jesse R. Johnson, Kansas Farmer and Missouri Ruralist

## 100--Wisconsin Guernseys--100

AT AUCTION

**Council Bluffs, Iowa, Monday, Nov. 13**

This is our first special sale of the 1939 fall season and I promise to sell the best lot of sound, young, fresh and close springers that have been offered in a Guernsey sale in the Middle West in a year.

Please keep this in mind, you folks who are wanting to buy GOOD Guernseys—we buy the best and sell them to be as represented.  
I just received the following inquiry about Guernseys I bought in your sales, will say I have bought 14 or 15 head the past year and every one is as represented.  
There will be 50 head of recently fresh or close springers, first calf heifers and young cows—a lot of baby heifer calves. A special consignment of 15 head from one farm will sell. Milk weights and butterfat test is furnished on each fresh cow and we invite the public to be here for the milking trials the day before the sale. Recent health papers on each lot. Write for folder to:

**H. C. McKelvie, Box 188, Council Bluffs, Iowa**

Note: An outstanding 18-month-old Brown Swiss Bull sells.

### SHORTHORN CATTLE

#### Lacy's Thick-Bodied Bulls

Reds and roans, sired by Greys Farms Victorious. 10 to 18 months old. Eight to select from, among them bulls in our 1939 show herd. Priced for farmers.

E. C. LACY & SON, MILTONVALE, KAN.

### POLLED SHORTHORN CATTLE

#### N. A. Davis, Trenton, Nebr.

—offers some choice POLLED Shorthorn yearling red and roan Bulls, low down beefy fellows, out of heavy milking dams and sired by the good bull, Golden Thickset X 1767630 (backed by a milk record). Just over line a few miles in Nebr.

### MILKING SHORTHORN CATTLE

#### Duallyn Shorthorn Farms

Bulls, 2 months up, out of Record of Merit cows. Prize winners at International and in steer carcass contests. Real double deckers—beef and butterfat.

JOHN B. GAGE, EUDORA, KAN.

#### Milking Shorthorn Bulls

Red yearling Bulls, Walgrove Flintstone breeding, 12,000 lbs. milk, 500 lbs. fat. Also baby bulls. J. W. McFARLAND, STERLING, KAN.

#### OTIS CHIEFTAIN BULLS

Nice red and roan Bulls, out of Otis Chieftain granddaughters of heavy production.

LEO F. BREEDEN, GREAT BEND, KAN.

### JERSEY CATTLE

#### JERSEY AUCTION

To Be Held at Ernest Moeck Farm, on Highway 71 (City Route), on South Edge of St. Joseph, Mo., Wednesday, Nov. 8

Beginning Promptly at 12:30 p. m.

**ALL CATTLE TB. AND BANG'S TESTED**  
Offering 55 head, consisting of COMPLETE MILKING HERD of BYRON LOVE, Camden Point, Mo., and a select offering from the herd of ERNEST MOECK, St. Joseph, Mo., including granddaughters of Design's Fern Oxford, Checkmate of Oaklands, Standard of Oaklands, Dreaming Sultan, Favorite Volunteer, Sybil's Gambooge Crown, and other noted sires. Included are 26 cows, mostly fresh; 18 bred heifers; 9 heifer calves, suitable for 4-H Club work; and several bulls, including BRAMPTON VOLUNTEER SULTAN, 359864, sire of the champion 4-H Club heifers at the Iowa State Fair and Dairy Cattle Congress in 1938 and 1939. For free catalog, write

IVAN N. GATES, Sales Manager,  
Box 3A West Liberty, Iowa  
Bert Powell, Auctioneer

## Rotherwood Jerseys!

Only herd in Kansas headed by two Silver Medal Sires—"Old Eagle" and Observer's King Onyx. Our 1938 herd average was 479.9 pounds of butterfat. The glorious thing about it all is that Rotherwood Jerseys are farmer-priced!

A. LEWIS OSWALD, HUTCHINSON, KAN.

### HOLSTEIN CATTLE

## Proven Sire



**B.I.S. Mercedes Walker Korndyke**

Holstein-Friesian Mt. Hope Index  
—19,630 lbs. milk, 685 lbs. fat.  
Sons of this high record proven sire for sale.

**C. L. E. EDWARDS**  
Sunnymede Farm, Topeka, Kan.

## ENGLE'S DISPERSION HOLSTEIN SALE

On Farm, 7 Miles Southwest of ABILENE, KAN.,

**Thursday, Nov. 9**

(Starting at 1 p. m.)

40 HEAD (30 in milk, just fresh or heavy springers) many now giving from 70 to 80 lbs. milk daily. Some choice heifers to freshen about Jan. 1. Also a number of good registered bulls ready for service.

**HOSTETER ENGLE, Owner**  
Abilene, Kan.  
Jas. T. McCulloch, Auct.

### 30 REG. HOLSTEIN COWS

and Heifers for sale. Good heavy producers. Herd established 20 years.

JOHN SCHULER, NORTONVILLE, KAN.

**SHUNGAVALLEY HOLSTEIN BULLS**  
Now is the time to buy a real Bull Calf for your future herd. Out of good producing cows and high record sires. Reasonably priced.  
Ira Romig, Son, 2501 W. 1st St., Topeka, Kan.

**DRESSLER'S RECORD HOLSTEINS**  
Cows in herd are daughters and granddaughters of the state's highest butterfat record cow, Carmen Pearl Veeman, 1,018 lbs. fat. Bulls for sale.  
H. A. Dressler, Lebo, Kan.

### GUERNSEY CATTLE

## 16 Guernsey Consignments

Kansas—Oklahoma—Missouri

Sale at SALINA,

Monday, November 6

44 Outstanding Females

8 GREAT YOUNG BULLS

20 GRADE FEMALES SELL

(Before Noon)

For Catalog Write

**ROY E. DILLARD, Secretary**

Central Kansas Guernsey Breeders,

Salina, Kan.

## REG. GUERNSEY FEMALES

Golden Glow Guernseys. Am consigning 8 nice heifers, 10 mos. to 2 yrs. old, to Central Kansas Guernsey Breeders' sale, Salina, Nov. 6th. E. E. Germain, Bern, Kan.

### Guernsey Heifer Calves

Four choice month-old heifer calves, express paid, shipment C. O. D. \$55.00.  
**LOOKOUT FARM, LAKE GENEVA, WISC.**

### AUCTIONEERS AND SALES MANAGERS

## BERT POWELL

AUCTIONEER

LIVE STOCK AND REAL ESTATE

715 Lincoln St. Topeka, Kan.

**LAWRENCE WELTER, AUCTIONEER**  
Purebred livestock and farm sales,  
Manhattan, Kan.





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**COLORADO  
ORNAMENTAL  
FENCE**

**COLORADO  
V-Mesh  
FENCE**

For Strong, Durable, Good  
Looking Protection

Full gauge, heavily gal-  
vanized, tightly woven,  
strong, springy—made  
of new billet, copper-  
bearing steel wire—

**COLORADO  
FENCE**

*Stands for the West!*

**The Colorado Fuel and Iron Corporation**

General Offices: Denver, Colo.

Steel Works: Pueblo, Colo.

### The BEAR CAT

Combination  
GRAIN and ROUGHAGE MILL  
Also ENSILAGE CUTTER



Grinds any feed—green, wet or dry. This feeder really  
takes in loose roughage, bundles or bale flakes and  
no monkey business about it. Large capacity guar-  
anteed with ordinary farm tractor. Grinds grain,  
ear or shelled corn with roughage or separate. Has  
cutter head and swing hammer. Get full informa-  
tion on this real honest-to-goodness Grinder. Write  
Western Land Roller Co., Box 135, Hastings, Neb.

**DO NOT FAIL TO INCLUDE IN YOUR  
LIST OF CHARITY GIVING, THE  
CAPPER FOUNDATION FOR  
CRIPPLED CHILDREN**

There is not a more worthy philanthropy.  
You could do no finer thing. Nineteen  
years of unselfish, intensive, uninterrupted  
service is behind this foundation. It needs  
your help—any amount is gratefully re-  
ceived. Address:  
CAPPER FOUNDATION FOR CRIPPLED CHILDREN  
20-C Capper Building, Topeka, Kansas

### INVENTS GAS SAVER FOR AUTOS

A new invention called the Supercharging  
GAS-MISER has been thoroughly tested by  
Mr. E. B. Moles, of 640 Pierce St., Sioux  
City, Iowa, who reports remarkable savings  
in gasoline and oil. It is reported the GAS-  
MISER not only saves up to 25% in gas and  
oil, but also creates a scientific super-  
charging action that increases power and  
pep. This device is fully automatic and is  
easily installed in any auto or truck in a  
few minutes. Mr. Moles wants Agents and  
Distributors and is willing to send a free  
GAS-MISER sample offer to anyone in-  
terested. Write him today. Advertisement.

**GLASS  
CLOTH** Brings More  
Winter Eggs

It's amazing how  
hens lay all win-  
ter when you re-  
place ordinary  
window lights  
with Genuine  
Red Edge Glass Cloth. The Original passes Ultra Violet  
Rays. Heavy, Strong, Durable. Now only 25¢ yd. Best  
winter covering for screen doors and enclosing porches.  
Other Genuine Turner Products are CRYSTOL FAB-  
RIC and WINDOW CLOTH. Lower in price, excellent  
quality. Look for the name of Product and the name  
TURNER on every yard if you want TURNER QUAL-  
ITY. Write for samples if not at your dealers.

**TURNER BROTHERS** BLADEN, NEBR., AND  
WELLINGTON, OHIO

## Know Your Hybrids!

See the  
**DeKalb Exhibit**  
at  
**National Corn Husking  
Contest**  
Lawrence, Nov. 1-2-3

DeKalb Agricultural Assoc., DeKalb, Ill.

## Trade with Kansas Farmer Advertisers

The products and appliances that they offer for sale  
are as represented. The things they say about farm  
profit and farm improvements are sound and truthful.

We wish to recommend to you the advertisements in  
Kansas Farmer as an additional source of farm informa-  
tion and help.

## The Good Old Days

(Continued from Page 49)

about 44 bushels to the acre for the  
entire state. The record for Kansas  
wheat in the same year was 11,738,408  
bushels from 758,600 acres, or a little  
more than 14 bushels to the acre.

When we reached Winfield I found  
another thrill in a cornfield, west of  
town on the Walnut river bottom, that  
averaged 14 feet in height, with plenty  
of big ears, and thought the Military  
Tract in Illinois would lose its cham-  
pionship as a corn grower. But 2 years  
later, in my own farming operations  
on the South Fork of the Cottonwood  
river in Chase county, when I grew and  
harvested 4,160 bushels of corn on 40  
acres, or an average of 104 bushels to  
the acre, I knew that Illinois had  
nothing better to offer.

Altho I saw this average of 104  
bushels of corn to the acre duplicated  
many years later on the Neosho river  
bottom near Oswego, in Labette  
county, I do not let my own record pass  
without the explanation that the 40  
acres of my crop had long been a stage  
station where many horses were kept,  
and was later a feedlot for cattle many  
years and therefore very rich, and my  
corn was its first crop. Anyway, I  
had beaten all available records of the  
Military Tract.

In those days, Kansas had a popula-  
tion of only 592,916 and only 69 or-  
ganized counties, as compared with the  
present 105, but the state had 51 agri-  
cultural organizations, which indicated  
not only a spirit of co-operation, but a  
dominating interest in livestock as all  
of these organizations were fair as-  
sociations, and that always means  
livestock.

### The First Telephone

As indicating the lapse of time since  
all of this happened, it should be re-  
membered that 1876 was the first  
year in which the telephone was pub-  
licly exhibited, usually considered as  
the year of its invention. There were  
no electric lights, gas engines, cream  
separators, cash registers, barbed wire,  
aluminum, photographic films or mov-  
ing pictures, tractors, automobiles,  
X-ray, aeroplanes, electric refrigera-  
tion, radio, combine harvesters, wire-  
less pictures—the list is endless. Even  
bathtubs, like a cowboy's bow legs,  
were few and far between.

Farming in Kansas was experi-  
mental. It had to be. Nobody had ever  
farmed under like conditions before  
and some unusual crops were grown.  
Buckwheat, castor beans, and hemp  
were factors in farming, and the sweet  
sorghums were grown exclusively for  
making the family molasses, of which  
1,732,474.60 gallons were reported for  
that year, as I later learned from the  
Board of Agriculture statistics. The  
grain sorghums were unknown.

When I first came to Kansas I had  
never heard of alfalfa. Didn't know  
whether it was a tree or a patent medi-  
cine, but in 1878 I had my first expe-  
rience in pitching it on the famous  
Blackshere ranch in Chase county,  
where, I have reason to think, it was  
first grown continuously in Kansas.  
It was not until 13 years later that al-

## Time for Good Time

Fall and winter months are a  
fine time for folks to get to-  
gether for good times. Here are  
some entertainment leaflets  
which will help in planning the  
program—whether it is for a  
small party at home, or some  
community entertainment:

Harvest Party—suggestions for  
games, decorations, refresh-  
ments, 3 cents.

Just for Fun—5 funny stunts  
3 cents.

Hitch Your Family to a Star—  
1-act comedy play, 5 char-  
acters, 10 cents, or 6 copies  
for 25 cents.

Address your request for any  
or all of these leaflets to Leila  
Lee, Kansas Farmer, Topeka.

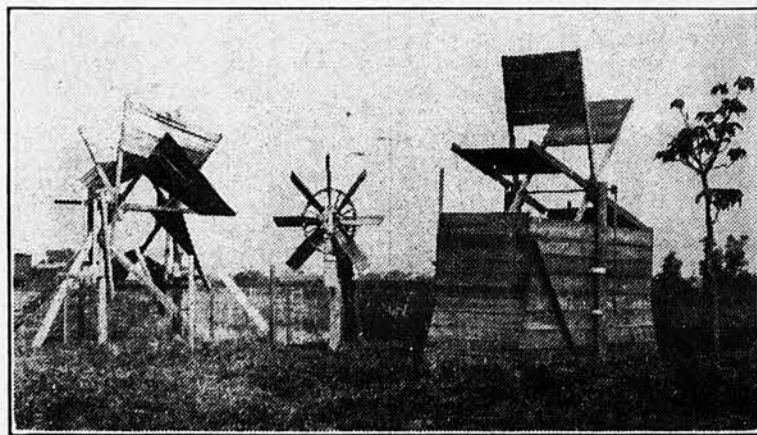
alfalfa had become sufficiently impor-  
tant to be recorded in the statistics of  
the Board of Agriculture, and then  
only 34,384 acres were credited to the  
entire state.

With a one-day trip into the Indian  
Territory, just to be able to say we  
had been there, our journey was then  
on the home stretch, diagonally across  
the Flint Hills to Fort Scott, thence  
thru Sedalia, Mo., to Quincy, Ill., and  
north, meeting a constant stream of  
covered wagons, Kansas-bound. Thru-  
out this trip, where everything was  
new, the deepest impression made on  
my mind was of the rich abundance and  
vast area of the native grasses, the  
greatest and most valuable natural re-  
source of Kansas.

But corn built Kansas and made of  
it a growing concern. Wheat may have  
been the main cash crop, but corn was  
the mainstay of the farm and sup-  
ported the household, without which  
there could have been no conquest of  
the prairies, and no Kansas. With corn  
and sorghum molasses as the basic  
foods and with 1 milk cow for every  
2.6 persons in the state to summer-  
graze on the luxuriant grasses and  
winter-feed on corn and prairie hay  
for an abundance of milk, the diet was  
balanced, while corn cobs and buffalo  
chips kept the home fires burning.

Later, the grain sorghums, alfalfa,  
and other legumes, with fruits and  
vegetables, were powerful factors in  
developing Kansas and refining it from  
the crudeness of its pioneer estate, but  
corn built the livestock industry, the  
state's chief source of income, and  
with it the vast livestock market and  
the enormous meat packing industry,  
in both of which Kansas ranks second,  
besides being a runner-up for dairy su-  
premacy.

But, to the people belongs the credit.  
Living freely and dangerously in a  
world of stern reality, with none of the  
refinements of older lands, spending  
their days where the heart of nature  
beats strongest, they gathered strength  
of mind and body with each breath of  
prairie ozone and built a state to rank  
among the first in the production of  
human necessities within the short  
span of a single human lifetime.



One of the interesting exhibits at a county fair in early day Kansas—homemade wind-  
mills. Quite a contrast to present day farm water systems.



## A Universal Harvesting Machine

# The Combine

By HARRY G. DAVIS

Director of Research, Farm Equipment Institute

THE combine, well-known to Kansas farmers as a wheat harvesting machine, is likely to become equally well-known as a universal machine for harvesting all threshable crops grown in the state.

Virtually all of the machines now on the market can be used to thresh almost anything from the smallest grass seed to the largest beans. It is only a matter of adjustment and the proper selection of sieves. One manufacturer, in his instruction book, lists 74 separate crops which can be harvested, and gives instructions for necessary adjustments.

Among the crops, many of which are grown in Kansas, that can be threshed with the combine are alfalfa, beets, buckwheat, carrots, the various clovers, flax, grasses, lespedeza, lettuce, mustard, onions, peas, parsnips, radishes, rice, the grain sorghums, spinach, sunflowers, turnips, vetch and the various grains, including barley, oats, rye, and wheat.

### Moisture Content Important

In threshing any crop with a combine, one of the first requisites is to have it in proper condition with respect to moisture content, or dryness. After this has been done, all other operations are merely a matter of the adjustment of the machine and the selection of screens with proper openings. Some crops reach a proper state while standing and all that is necessary is to run the machine down the field, cutting and threshing in one operation. Other crops, however, will not mature on the stalk to reach a proper state for threshing. Such crops must be windrowed, left to dry, and then picked up and threshed.

When crops are windrowed, there is one thing to guard against and that is not to make the windrows too large. If they are, the pickup will deliver an overload to the machine, clogging it, perhaps.

While Kansas farmers thoroly understand the operations of combines in threshing wheat and other small grains, some of them may not be familiar with threshing other crops. These should consult the instruction manual, which came with their machines, and if they do not have one they should either call on their dealer or write their manufacturer for another copy. In these manuals will be found complete instructions on the method of handling the particular crop they wish to thresh, as well as how to adjust their machines, and the size of sieve that should be used.

Combines are being used to a great extent thruout the country in harvesting alfalfa. This crop is usually cut,

windrowed, and after it is thoroly dried it is picked up with the pickup attachment. Usually a screen having  $\frac{1}{10}$  inch round holes is used. Quite high cylinder speed usually is used and a close clearance between the cylinder and concave is required in order that all of the seed is removed from the hulls.

In threshing soybeans, the crop which frequently is said to have resulted in the combine going into the Corn Belt, the many varieties being grown and the effect of soil and climatic conditions in the plant, makes it difficult for combine manufacturers to give specific directions for setting the machine for harvesting this crop. Usually there is someone in the neighborhood who knows how each particular variety or type of crop should be threshed, but if there is not, the dealer or representative of the company which sold the machine is able to give accurate instructions.

Crimson clover is another crop that is being harvested to a large extent by combines. This crop can be harvested either direct from the standing plants or it can be windrowed for drying and picked up and threshed later. Special sieves, high cylinder speed and special adjustments are required for harvesting this crop.

### Avoid Shattering Loss

In threshing grasses, such as orchard grass, Sudan and timothy, which usually are harvested as standing crops, it is necessary to get in the field when about 75 per cent of the heads are ripe, otherwise there is likely to be some loss from shattering.

In the high-growing grasses, like timothy, the cutting bar should be elevated high enough to get all the heads and avoid sending too large a portion of the stems thru the machine. Instruction manuals should be consulted for information as to machine adjustments and size of screens to be used.

Of course, in threshing grasses and the crops with small seeds, the air blast must be greatly reduced to avoid blowing the seed out of the machine with the straw and chaff.

In threshing grain sorghums, combines are quite popular. Some varieties grow so high that it is necessary to shock them for drying and then top them with the special arrangement of the cutter bar, feeding only the tops thru the combine.

Experience of farmers in various parts of the country demonstrates that almost every crop grown can be harvested with combines if the operator understands the adjustments of his machine that are required to meet the special conditions presented.

# 100 Beautiful, New POSTER STAMPS



Just off the PRESS! In full COLOR!

## Here's Your Chance to Help Make and KEEP KANSAS DRY

Send \$1.00 for your sheet of 100 Stamps Today

★ Shown above are three of the 100 beautiful, new, full-color POSTER STAMPS (actual size of each stamp  $1\frac{3}{8}$  by  $2\frac{1}{4}$ ) just released throughout Kansas.

Receipts from the sale of these stamps will go to harness the dry forces of this state in an efficient, aggressive manner. Your dollars will be used (1) to provide for the necessary leadership to perfect our organization and to insure its success, and (2) to promote a state-wide educational program among our young people and our adults creating sentiment against the use of alcoholic beverages in our state.

We can't go on forever and expect the load of problems created by liquor and the liquor interests to be met by volunteer efforts. We're sure the good people of Kansas are willing and anxious to assume their small share of the burden. IT'S UP TO YOU! These attractive POSTER STAMPS give you your opportunity.

Don't wait! We need YOUR HELP NOW! Clip the coupon below and mail it together with one dollar (\$1) TODAY! Your stamps will be mailed to you by return mail.

### Boys & Girls! Add these to your Collection

If you're a stamp collector, these handsome, colorful stamps will add much to your collection. Be first in your town to have them. Use coupon below. Mail it TODAY!

**KANSAS UNITED DRY FORCES**  
NATIONAL RESERVE BUILDING TOPEKA, KANSAS

↓ CLIP OUT AND MAIL TODAY ↓

KANSAS UNITED DRY FORCES  
National Reserve Building, Topeka, Kansas

I want to help the Kansas United Dry Forces in their efforts to combat the evils of liquor in Kansas. Enclosed is \$.....to pay for.....sheets of POSTER STAMPS. (\$1 per sheet.) Please send them immediately.

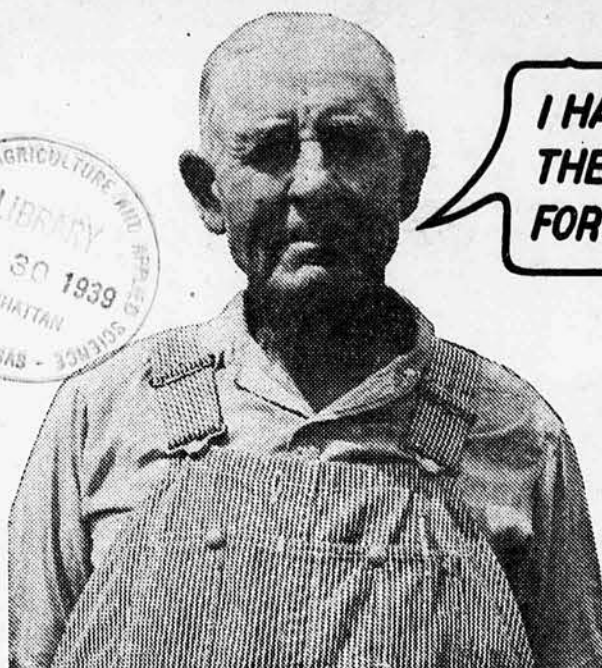
Name..... Street Address.....

Town..... State.....



A. W. Zuercher saves the seed of Atlas sorgho with his all-crop harvester, near White-water, Kan. Note the bundle-topping attachment.





Mr. F. H. Leonhard of Lawrence, Kansas, who raised the corn that twenty-two husky young men from eleven states will pick on November 3rd.

**I HAVE ALWAYS CONSIDERED JOHN DEERE IMPLEMENTS THE FINEST ON THE MARKET.. AND GIVE THEM DUE CREDIT FOR THE FINE RESULTS I OBTAINED THIS YEAR.**

## **Every Implement Used On the NATIONAL CORN HUSKING FARM AT LAWRENCE, KANSAS was a JOHN DEERE**



**The PLANTING** with a John Deere Tractor and two-row lister, accurately, and at uniform depth for maximum yields.



**The CULTIVATING** with two John Deere Tractors and integral cultivators. Perfect vision and easy handling enable these two tractors to cover the field quickly and thoroughly.

Mr. Leonhard's responsibility last spring when he laid out his cornfields was no little one. The success of the National Corn Husking Contest depended upon the results he got.

Today, those results speak for themselves... a field of corn uniform from one end to the other—the result of a combination of seed beds properly prepared, seed accurately planted, cultivation carefully and skillfully done.

You'll find a large percentage of the outstanding farmers in every community using John Deere Tractors and Implements. They know from experience that John Deere Tractors and Implements help to cut their costs, to increase their yields, to save time, labor, and effort.

### **Make Our Exhibit Your Headquarters**

While you're at the contest—of course you're planning to go—take a few minutes off to visit the John Deere Exhibit. There will be a full line of John Deere Tractors and Power Equipment on display.

You'll see the John Deere Two-Cylinder Tractors that burn the low-cost fuels successfully, in sizes and types for every farm. You'll see, too, plows, disk harrows, integral cultivators, corn planters, listers, corn binders and pickers, ensilage harvesters, hammer mills, stalk cutters—even the new No. 11 and No. 12 family-size, straight-through combines.

So plan to spend some time with us at the contest. If you can't come, we'll be glad to send you complete information about any equipment.

**John Deere Plow  
Company,  
Kansas City, Mo.**



**The RESULTS** that speak for themselves, tall, sturdy stalks with big, well-filled ears, waist high—just right for the contest. May all records be broken.

**Visit the  
JOHN DEERE EXHIBIT  
at the National Cornhusking  
Contest Nov. 1, 2, 3**

**JOHN DEERE**  
THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS