

Kansas Farmer

89:16

Cap 12

Beating Two Grain Enemies

When moisture is too high, drying unit gets rid of it; when temperature is too high, blowers cool it down

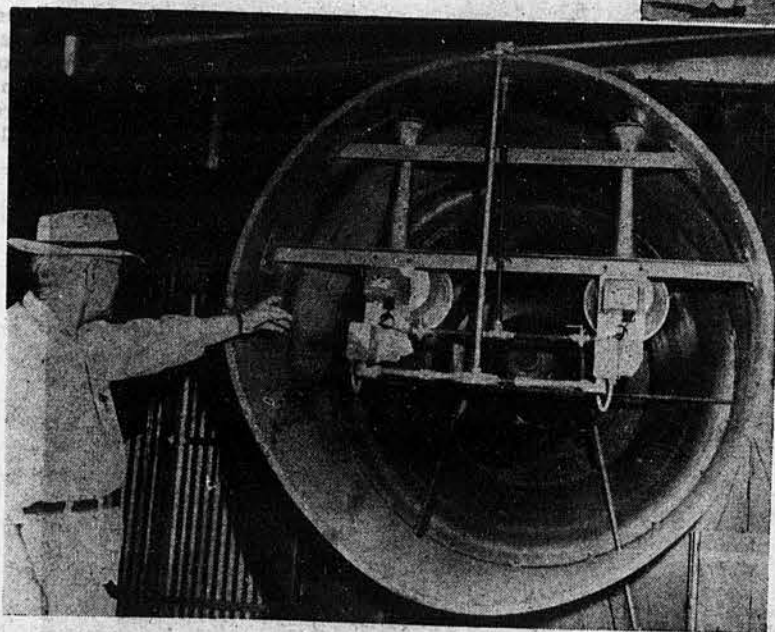
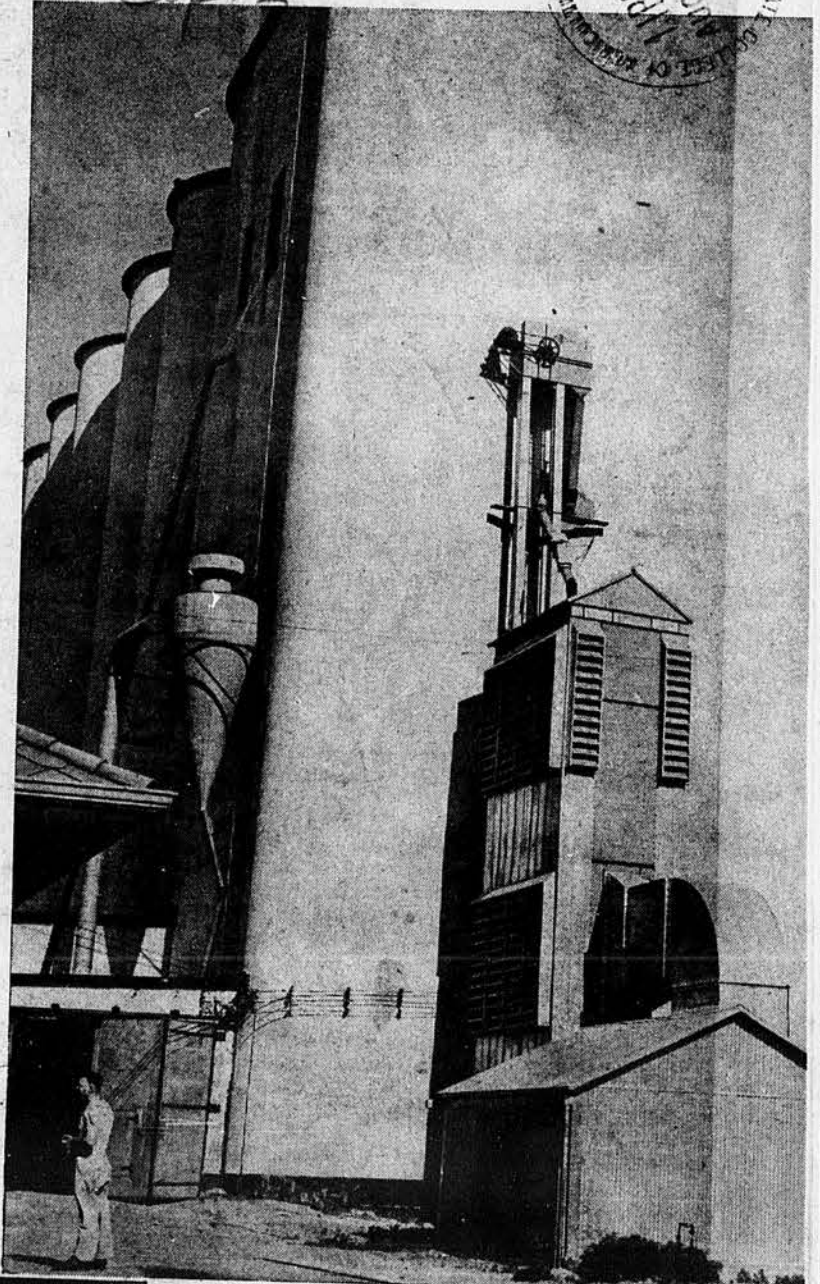
TWO ENEMIES of grain quality are heat and moisture. Much has been said in recent months about care of grain on farms. Little has been said about what can be done to fight heat and moisture at country grain-buying points.

It is encouraging to note some elevators in Kansas are doing something about this problem. One such elevator is the Farmers Co-Operative Elevator and Mercantile Association, at Dighton, managed by Sam Martin.

"We're drying all grain that comes in with a moisture content above 14 per cent," says Mr. Martin. "That goes for both wheat and sorghums." Moisture content on such grain is reduced to 13 per cent.

About a year ago the Dighton elevator purchased a 600-bushel-an-hour dryer that has been working well. During the first year of operation 200,000 bushels of milo and 50,000 bushels of wheat have been put thru the unit.

Grain from the elevator [Continued on Page 11]



THIS HUGE GRAIN dryer on the side of Farmers Co-Operative Elevator and Mercantile Association bins at Dighton, is helping maintain grain quality by defeating heat and moisture.

ONE OF TWO huge heating units for drying grain is shown here by Sam Martin, manager of the association. The dryer will handle 600 bushels of grain an hour.

- Where You Find Help Page 4
- The Last Word in Kitchens Page 16
- Facts About Fertilizer Pages 21 to 31

What Other States Are Doing To Eliminate Brucellosis Disease

By DICK MANN

Editor's Note: This is the last of a series of articles on brucellosis (Bang's disease). As the final article we are giving you observations and recommendations of Professor C. G. Bradt, Extension animal husbandman of Cornell University, N. Y. Professor Bradt recently completed a 6-months survey of brucellosis during which he visited most of the states.

"BRUCELLOSIS ERADICATION in varying degrees is moving forward in most states, with splendid co-operation among federal and state sanitary officials, college and extension personnel," says Professor Bradt. His report continues:

"Eradication progress is more advanced in dairy than in range areas. In general, beef cattlemen and dairymen do not agree on the kind of program to adopt.

"To meet the problem of insufficient veterinary personnel, use of properly trained laymen for vaccination and bleeding, preferably under veterinary supervision, offers hopeful possibilities.

"Veterinarians in private practice must be adequately paid if their services are to be utilized. Pay rates are too low in some states.

"Since brucellosis eradication in livestock has a direct bearing upon control of undulant fever in humans, public agencies of government have a responsibility to assist in eradication of this disease. Many states and some counties already have accepted this responsibility by appropriating generously of their funds.

"The ring test holds much promise

of speeding the testing of herds at lower cost, in milk-producing areas.

"Some states have too many program regulations to enforce for which they are not prepared as to policing personnel.

"In a good many states education of livestock producers to the need for eliminating brucellosis has outstripped demand for brucellosis control measures. Areas are signed up and waiting for service.

"Before final elimination is achieved, rigid controls over movement of known reactors must be inaugurated; but too hasty passage of such regulations should be avoided.

"Additional educational work is needed in some states. More leading and less forcing by compulsory legislation is suggested. Folks usually move when they are convinced it is to their advantage to do so.

"Calf vaccination should be viewed as a means to an end, and not the end, or goal. Some day, it is hoped, vaccination will be unnecessary and can be done away with as disease infection reaches the near vanishing point.

"Brucellosis eradication in swine and other animals should receive increasing attention as rate of cattle infection declines.

"The day is fast approaching when shippers of cattle across state lines and producers of milk must comply with health regulations relating to brucellosis control.

"Proper management to protect herds against all possible sources of exposure cannot be too greatly emphasized. Those who vaccinate tend to become careless and overlook this rule."



**new LOW-SLOPE pickers
SAVE MORE CORN**



The new low-built Corn Harvesters do not knock down corn head-on. They glide under.

Low-sloping gathering snouts follow the ground, nose under broken stalks and scoop up low-hanging ears. That's the Allis-Chalmers way to crib more corn.

You'll especially like the simplicity and compactness of an Allis-Chalmers Corn Harvester. It's engineered down-to-earth, with fewer working parts to wear, and lower upkeep all the way.

Because its steel and rubber husking rolls are low and out of the danger zone, it's safer to operate. Snapping rolls are safely shielded with steel plates that are adjustable to prevent shelling or gouging ears.

Best of all, here's a picker you can afford to own for your home farm. When your crop reaches the just-right stage for picking, be ready to go with your own Corn Harvester.

Two-Row Corn Harvester is undermounted on your WD or WC Tractor — easy on, easy off. Four-fifths of the weight is balanced on the broad rear tires of the tractor for sure-footed traction in muddy fields. Undermounting gives you clear vision and safety. All working parts are below the operator and carefully shielded.

One-Row, Pull-Type Corn Harvester has the same corn-saving features found in the two-row mounted model. Light in weight, low-priced — operates with any standard 2-plow PTO tractor.

ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

CORN HARVESTERS

COMING EVENTS

August 17-23—Sixth International Grassland Congress, Pennsylvania State College, State College, Pa.

August 18-19—Reno county, Pioneer Days, Turon.

August 18-19—Kiowa county, 4-H fair, Greensburg.

August 18-20—Shawnee county, 4-H Club fair, Free Fair Grounds.

August 18-20—McPherson county, 4-H fair, McPherson.

August 18-23—Central Kansas 4-H fair, Abilene.

August 19—Rice county, community farm tour, balanced farming feature, Raymond Bell, Valley Center.

August 19-20—Wichita county Old Settlers' picnic and fair.

August 19-21—Pawnee county 4-H Club fair, Larned.

August 19-22—Montgomery county, 4-H fair, Independence.

August 20-21—Finney-Haskell counties Old Settlers' picnic, Garden City.

August 20-21—Edwards county, 4-H fair, Kinsley.

August 20-21—Morris county, 4-H fair and sale.

August 20-23—Norton, Decatur, Sheridan,

Rooks, Graham and Phillips counties, 4-H camp, Rock Springs.

August 21-22—Rawlins county, 4-H and FFA fair.

August 21-22—Barton county, overnight camp for home demonstration women.

August 21-23—Ellsworth county, 4-H fair and celebration, Ellsworth.

August 22—Wabaunsee county, horse show, Alma, 8 p. m.

August 23—Jefferson county, county wide preliminary style review for all 4-H girls, Okaloosa Legion Hall.

August 25-27—Jefferson county, 4-H fair, Valley Falls.

August 25-26—Hamilton county fair and 4-H fair, Syracuse.

August 27-28—Barton county leader training on problems of aging, with Vivian Briggs, KSC Extension specialist.

August 27-30—Tri-county 4-H Club fair, Herrington.

August 27-30—Dickinson, Morris, Marion counties, tri-county 4-H fair, Herrington.

August 27-September 1—Five-state free fair, Liberal.

August 28—Barton county, Farm Bureau Association family night.

September 1—Laporte county, Old Settlers' reunion, Oswego.

September 1-2—Cloud county, fall festival, Concordia.

September 2—Laporte county, fall field day, Mound Valley Experiment Station.

September 3—Riley county, fall field day, KSC Agronomy Farm, Manhattan.

September 5—Ellis county, fall field day, Ft. Hays Experiment Station, Hays.

September 5-6—Johnson county, Old Settlers' reunion, Olathe.

September 6-12—Kansas Free Fair, Topeka.

September 9-11—American Soybean Association, 32nd annual convention, Purdue Union, Lafayette, Ind.

September 14-19—Kansas State Fair, Hutchinson.

September 15-16—Kansas Termite Pest Control Association meeting, Topeka.

September 15-18—American Country Life Association annual meeting, University of Wisconsin campus, Madison. Contributions and problems of the family farm is the chosen topic.

September 16-18—American Country Life conference, Wisconsin College of Agriculture, Madison, Wis.

September 27-October 4—National Dairy Cattle Congress for 1952, Waterloo, Ia. Six dairy breeds—Ayrshires, Brown Swiss, Guernsey, Holstein, Jersey, Milking Shorthorn dual-purpose breed, compete for nation-wide honors.

September 29—4-H Club Fat Stock Show, Wichita.

September 29-October 3—Sedgwick county, 4-H Fat Stock show, Wichita.

October 18-25—American Royal Livestock Show.

KANSAS FARMER

Continuing Mail & Broeze

ARTHUR CAPPEE... Publisher (1893-1951)

121-123 West 8th St.

Topeka, Kansas

Vol. 89, No. 16

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Member: Audit Bureau of Circulations, Agricultural Publishers Association, National Association of Magazine Publishers.

Published the first and third Saturdays each month at Eighth and Jackson streets, Topeka, Kan., U. S. A. Entered as second class matter at the post office, Topeka, Kan., U. S. A., under Act of Congress of March 3, 1879.

Three years, \$1; one year, 50 cents. Copy 5c.



HERE IS NEW outpatient clinic at Topeka State Hospital where you may be able to get help for an emotionally disturbed child or adolescent.

If your child was mentally or emotionally disturbed, do you know . . .

Where You Would Find Help?

By DICK MANN

Editor's Note: This is the second of 3 articles on child mental health problems in Kansas. This covers services now offered by Topeka State Hospital "outpatient" clinic to any family in the state. A third article will explain a proposed long-range plan for handling child mental health problems in Kansas, with suggestions on how you can help in this program.

JUST where would you turn if you had a child who needed mental health treatment? In our first article, page 10, *Kansas Farmer* for August 2, 1952, we told you Kansas school authorities estimate there are 11,000 Kansas school children so mentally disturbed they [Continued on Page 38]

DISCUSSING a child mental health problem are, left to right, Mildred Merrifield, case work supervisor; Dr. Joe Noshpitz, director, and Dr. Robert Roman, psychologist, all of the new outpatient department for children and adolescents at Topeka State Hospital.



BY STUDYING PLAY HABITS of mentally disturbed children, Doctor Noshpitz, or any trained psychiatrist, often can discover why a child fails to adjust to his social surroundings.



FINANCES and child problems are discussed by Miss Merrifield with folks interested in mentally disturbed children.



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Kansas Farmer

News and Comment

Will Need More Money

THE NATIONAL Fertilizer Association has launched a program designed to provide the nation's banks, particularly country banks, with information needed by these institutions in considering production loans involving fertilizers.

"If farmers are going to be able to purchase additional fertilizers required to grow added crops set as a goal by the U. S. Department of Agriculture," stated Russell Coleman, president of NFA, "they will need substantially additional amounts of working capital. On the basis of present production costs, farmers by 1955 will need about 700 million dollars more working capital for fertilizers alone than they used in 1950. This capital can come from their own savings, from private credit institutions or from public credit institutions. Private banks will be aware of this prospective increase so they can prepare to obtain or increase their share of the agricultural business.

"Experimental data from Land Grant Colleges thruout the country uniformly show use of fertilizers is a tremendously profitable practice, one principal means of assuring that farmers have enough income to take care of their financial obligations. When a farmer properly applies \$100 worth of fertilizer he usually will, within the same year, obtain his \$100 back plus from \$100 to \$500 more from increased crop yield. He can often double or triple his net profit per acre thru proper fertilizer usage and other good agricultural practices, and perhaps most important of all he can, by using fertilizers to increase his yields, cut his unit cost of production. This means he can put himself in position to continue to operate profitably even if agricultural prices decline."

How Fertilizer Helps

WHAT CAN FERTILIZER do for your farm and your income? In this issue of *Kansas Farmer* we bring you the latest and most authentic information available to answer those questions for you. Read the articles on Fertility Build-up, the ABC's of Fertilizer, Diet for a Well-fed Wheat Crop, Don't Guess When Using Fertilizer, and many others. Later issues also will bring you more of this fertilizer story, how plant food has changed farm production, brought higher yields and returns, made farm living more satisfying.

Primarily the things that have done most toward bringing higher yields, better profits and more satisfactory farm living have been the ingenuity and countless abilities of farm people. You folks have been able to adopt and

adapt the new things, the genuine advances in agriculture. Topmost among the many "tools" of your business you placed fertilizer and you have used it well. We hope this and following issues of *Kansas Farmer* will bring you in these fertilizer articles exactly the information that will be of most help to you. If you have questions about fertilizer use, please send them to the editor. We have sources of information that will bring you the right answers.

Key to Farm Health

ONE OF THE KEYS to successful farm health is good water. Some communities have group plans for having water samples tested.

Now it is announced water samples for analysis by the Kansas State Board of Health are to be sent to the Division of Sanitation, Water and Sewage Laboratory, University of Kansas, Lawrence. Until July, samples had been tested by the Public Health Laboratory, located at Topeka.

These are the basic principles which should be followed in collecting water samples from private supplies, says Dr. Thomas R. Hood, executive secretary of the Kansas State Board of Health:

(1) Samples need not be collected from farm water supplies unless the supply is suspected by the family physician or county health officer of causing disease.

(2) Examination of a single sample from a well or cistern is of little value in determining safeness of supply, or in evaluating sanitary quality of water unless accompanied by study of the well construction.

(3) Samples should not be collected from supplies located or constructed so as to permit surface or subsurface drainage to enter the supply.

(4) All samples should be collected in sterile containers obtained from the Water and Sewage Laboratory or the local health department, and mailed to the laboratory immediately.

Some local 4-H Clubs are testing water in their communities as a service and an aid to better farm health. They are to be commended for boosting this important program.

Important Visitors

THE OTHER EVENING 16 foreign agricultural experts were dinner guests of *Kansas Farmer* and other Capper publications in Topeka. It was a very interesting experiment. There we had with us Dr. Clorinda Mesquita of Paraguay; Miss Tao Tai-Keng, Chang Tsonghan and Lu Nein-tsing of Taiwan, China; Federico Ibaguirre of Venezuela; Mrs. Nada Brncic and Stanko Miric of Yugoslavia; Abbasgholi Khadje Nouri of Iran; El Mahdy Said and Dr. and Mrs. Abel-Khalik M. Zikry of Egypt; and A. D. Lubis, Sjamzul Jazir, M. Seedarwanto, Soegahdhi and Rd. Soepardjono of Indonesia. We had a lot of fun trying to pronounce all of our names. Our guests, by the way, did a better job of pronouncing your editor's name than he did theirs.

Strangely this group, spending a year in this country, many of them here 6 months already, can understand one another only when they speak English. And most of them speak our language quite well—floundered around on some words but we got the general meaning. We couldn't help wondering how well we would do with their languages after being in their countries only a few months. They assured us it



A Woman's Age: "I don't intend to be married until I'm thirty! I don't intend to be thirty until I'm married!"

Dramatic Critic: A man who gives up the best years of his life to the theater.

A pessimist is one who wears a belt and suspenders at the same time.

The bird with the biggest bill is the stork.

The girl who said "I have seen four and twenty summers" didn't say how many summers she was blind.

"But father, you should approve of my acquaintance with that telephone girl—she's connected with the best families in town!"

Sir James Barrie, author of "Peter Pan," once said that some of his plays did better than others. "Some peter out and some pan out."

Riddle: What is black and white and red all over? Answer: A blushing zebra.

How busy one is while working is not so important as why busy. A mosquito is swatted; a bee is congratulated.

would be just as simple for us to learn to speak and understand their languages as it was for them to learn ours.

During the evening each foreign visitor was introduced, stood up and said a few words, including thank you for the dinner, in his own language. One man from China sang a favorite song in the high nasal tones typical of his country; we heard something of Japan's hopes and aspirations.

Those were words our visitors were speaking in their own languages, and we couldn't understand one of them. One thing we did notice during the evening, however, is that every single one of us laughed in the same language. Undoubtedly we also weep in the same tongue. What a great thing it would be if more visitors from around the world could sit down to dinner together in every country, joining in one another's laughter, sharing one another's troubles! Peace then could come nearer being reality.

Our foreign friends saw Kansas farming, visited a flour mill, learned how to take soil-moisture tests, took a trip thru a creamery and poultry packing plant, saw some beautiful beef cattle on the Flint Hills Hereford Tour, and visited with farmers and their families. They were lavish in their praise of Kansas and America. They were learning much from us. On the other hand, we can learn a great deal from them of patience and culture. A well-planned trip is interesting education.



"... 'For heaven's sake,' she says, 'let him play with the car keys if it'll keep him quiet ... he can't hurt them,' she says ..."



"Everything is just fine, Mrs. Gibson. I've been teaching him to use the telephone. So far he's talked to his Aunt Martha in Cleveland—his Uncle John in Omaha ..."



He's feeling his CHEERIOS...

**-THE OAT CEREAL
THAT NEEDS
NO COOKING!**

Yes ... a ready-to-eat OAT CEREAL
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Try Cheerios! And see how easy it is to serve your family that wonderful oat energy at breakfast time. Cheerios... made from energizing oats... needs no cooking! And delicious? Everybody goes for the crisp, fresh, toasted oat flavor of Cheerios. So, for a better breakfast every day, include Cheerios. It's the only famous, ready-to-eat oat cereal... the only cereal shaped like golden, appetizing, little doughnuts. Get a package of Cheerios.



IN
REGULAR
AND
FAMILY
SIZE

**Follow These Rules for Success
When Getting Up Your Fair Exhibit**

By WILLIAM G. AMSTEIN, Kansas State College

SELECTION of vegetables for exhibit at local and county fairs deserves attention of many folks this month and next. It is an opportunity to show to advantage your ability to produce many fine vegetables. In most fairs there are open classes for folks of all ages as well as 4-H and FFA members.

Visiting exhibitors at fairs and answering letters and questions over the state, I find there is considerable difference of opinion in regard to showing vegetables. Some common questions include: Can you wash vegetables? Is it possible to remove tops of crops such as carrots? Does it hurt the exhibit to put in 1 or 2 specimens of every vegetable I have in the garden? It says 5 specimens in the catalog. We want to put in a few extra but they are not all the same variety and color.

Follow Exhibit Rule

Stay by the rule for the exhibit. If it calls for 6 kinds with 5 specimens each, that is the best plan for the exhibit. Avoid overstuffing the exhibit for often some of the extra samples may give you the most trouble.

In showing root crops (beets, carrots) leave about one-half inch of top. Leaves or tops left on most crops will only hasten their wilting. Do not overpeel onions. Sometimes yellow onions look like white onions as a result.

Most fresh vegetables to be displayed should be harvested either early in the morning or late in the evening. Many times this should be as late as possible, since most vegetables will have poor shelf life in the heat of an exhibit building or tent. Harvested products should not be left in the sun, but placed where it is cool and moist.

Selecting samples to exhibit, remember that oversize, small, green, overripe, misshapen, or damaged (by insect or disease) specimens or those with other blemishes should not be saved for exhibit.

Preparing vegetables for exhibit, try to keep a scorecard or standard in mind. Rules for each fair may vary somewhat.

Selecting and preparing an exhibit, a good rule to follow is first to pick out one typical specimen having good type, size, color and free from blemishes. By using this single specimen as a guide, select, if possible, at least twice the amount called for in the rules for

the class or exhibit. If you wish to show a peck of Irish potatoes, select at least one-half bushel using the ideal sample potato as an example to go by.

A scorecard for vegetables on the basis of 100 could be as follows:

Condition—Freedom from dirt, disease and blemishes, edible maturity.....	25%
Quality—Crispness, flavor and firmness.....	20%
Trueness to type.....	20%
Uniformity—Size, color and shape.....	20%
Size—Should conform to market demands.....	15%

In considering these items, a top exhibit should not have more than 10 per cent variation in size, shape and color of the specimens. To be of the best market size and quality beets would be 1½ to 3 inches, carrots 1 to 2½ inches, onions over 2 inches and potatoes 6 to 10 ounces and true to variety type. Extreme differences in size, shape or color need to be avoided.

Commercially most vegetables are now washed, brushed or cleaned in some manner if soil conditions require. Vegetables that have to be washed or brushed to produce an attractive exhibit should not be penalized or disqualified. In fact, failure to clean them might only serve to cover up some defects the judge will find anyway.

After specimens are selected, they should be carefully wrapped in newspaper or protected in some manner for the trip to the fair. Take a few extra specimens.

Find out before it is too late when vegetables have to be entered and in place. If you cannot arrange to make a special trip to do this, one of your neighbors may be going early and will be glad to take your exhibit for you.

In addition to selecting and showing vegetables it is well to arrange to see them judged; at least see how they were placed. Whether or not you win, you can learn by seeing what winning samples look like.

A further suggestion on selection of vegetables for display classes or collections has to do with the kinds chosen. Too often egg plant, beans and choices of this type that have poor shelf life in a hot exhibit hall or tent are chosen. Again many made the mistake of choosing ripe or overripe specimens (tomatoes, cucumbers). Mature but not overripe products should be selected. If the judging is delayed 24 hours or where the show lasts 3 or 4 days, choose specimens that will have quality after being on display for a day or two.

GRANDMA By Charles Kuhn



CHAS. KUHN-6-2

Genuine

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WITH ZINC-GRIP HOPPERS THAT HOLD ALMOST A BUSHEL OF SEED PER FOOT

Easier to pull because of exclusive MM disc and disc bearing design — cuts narrow furrow — therefore cuts through trash better, too, and seed is more easily and evenly covered at uniform depth.



press wheel drill holds soil firmly to hold moisture.

Zinc-grip all-steel hoppers hold almost a bushel per foot — last longer.




Deep cut fluted-feed with built in revolving wall plate prevents bridging and grinding of seed.


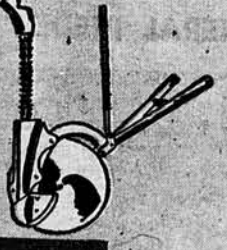
Gently Handles **EVEN THE MOST DELICATE SEEDS**

No matter what crops you decide to sow, a Moline-Monitor drill will do the job quickly and accurately. MM drills are designed to prevent bridging and grinding of seed.

An exclusive feature permits you actually to see the seed being delivered to the spouts. No special gates or extra equipment are needed to handle everything from soybeans to flax.

Moline-Monitor disc openers cut through the trash cleanly and efficiently. The seed tubes deliver the seed into the moist earth at the bottom of the furrows before the dirt falls back into place. There they are safe from the wind and weather to germinate quickly, *evenly*, for uniform growth and ripening. That means better yields per acre for you.

Eight different quantities may be sown per acre with MM double-run feed without the use of cup filler or changing gears.

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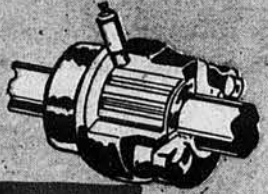
MM drills are quick, accurate, and rugged too. The strong all-steel construction of hoppers, frames, axles, and wheels add up to dependable, efficient operation. Typical of the quality construction are the axle bearings which are extra large and completely enclosed in a self-aligning dustproof housing. The hopper is big, holding almost a bushel per foot and made of zinc-grip galvanized steel for long life.

All these advantages and many more are yours with Moline-Monitor Drills . . . world's first commercially successful grain drills . . . and, today the recognized quality leaders.



deep furrow and drills build seed protecting ridges.

Front of bearing delivery with close spaced, double-disc openers. Seed is carried downward and evenly deposited in two rows at bottom of furrow.

Bearings are completely enclosed in self-aligning, dust-proof housings for easy pulling and long life.



AN MM DRILL FOR EVERY PURPOSE

- FLUTED FEED PRESS WHEEL DOUBLE RUN
- DEEP FURROW DOUBLE DISC FERTILIZER
- SINGLE DISC HOE TYPE LISTER
- FERTILIZER ATTACHMENTS
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fertilizer attachment on a fertilizer drill of standard MM drill.

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1. Fertilizer deposited along with seed.
2. Fertilizer deposited separate from seed.
3. MM deep-furrow method builds protecting ridges.
4. MM lister-drill method builds 10" well-rounded ridges and spreads seed evenly.

Quality Control In MM Factories Assures Dependable Performance In the Field

MINNEAPOLIS-MOLINE

MINNEAPOLIS 1, MINNESOTA

JACK GOES TO NORWAY

Meals are different over here, so is the way they put up hay, but you should see their strawberries!

Remember, Kansas Farmer promised to bring you letters from our two 4-H'ers who are spending some time on farms overseas this summer. Here is the third one from Jack Grier, of Pratt, who has gone to Norway.

DEAR MR. GILKESON: (July 27, 1952)—Here is another letter from an IFYE from Kansas to Norway. By now I have become accustomed to their meals and times they serve them. Just after getting up of a morning we have a short breakfast of bread with jam and coffee. At about 10 o'clock we take a break of about an hour and have a meal which usually consists of ham and eggs with more bread, jam and coffee. Around 2 o'clock we quit work again for the main meal of the day, midday, which is usually meat with boiled potatoes and dessert.

Most meat here is either salt cured or canned after cooking. Little fresh meat have I seen since I arrived in Europe. The canned meat is heated well before serving and the salt cured meat usually is served raw.

Use Lots of Rhubarb

Norwegians use a lot of rhubarb which is prepared in many different ways. They prepare it as a soup, a dessert, and also mix it with wild strawberries and sugar to make a jam which is delicious. Wild strawberries grow everywhere here in the valley and are about half as large as our strawberries in the U. S. However, strawberries which are produced in gardens are 3 or 4 times as large as ours at home. The last meal of the day is served around 6 or 7 o'clock and consists of cured meat, bread, jam and coffee.

Many different types of cheese are produced in Norway. One of the types of cheese is on the table during every meal except midday.

Mr. Ringnes, my host, started mowing hay the day I returned from camp and I was to witness the spectacular way in which Norwegians put up hay. It consists mostly of timothy with some alsike and red clover, and various other grasses intermixed. We used a mowing machine pulled behind his tractor. Much of the hay in Norway is cut with a hand scythe, due to the hills and rocks on some of the farms. The field we were on was plenty steep and at times I thought the tractor would surely roll over. Places where hay was thick and heavy it was hung on wires to dry and where it was thinner it was left on the ground to dry.

Hang Hay on Wires

Preparation for hanging the hay on wires was most interesting. First a heavy iron bar was used to make a straight row of holes in the ground about 6 feet apart. Posts about 8 feet in height and sharpened on the bottom were put into these holes. A wire then was strung from one end of the posts to the other about 2 feet above the ground. This wire was covered with hay and another wire strung about 1½ feet above the first wire. This wire was also covered with hay. The process was continued until we built a long, narrow stack of hay about 6 feet in height.

Due to dry weather the hay was left on the wires only 3 days before being put in the barn. Mr. Ringnes said it was very wet during haying season last year, and his hay was on wires one month. All hay left on the ground we



Jack Grier

turned with garden rakes so hay underneath might dry. The hay then was raked into piles with a small hayrake pulled by a horse. We loaded it on a small wagon and hauled it to the barn. Due to size of the wagon we spent most of the time driving back and forth between the field and the barn.

People of Norway have figured a good way to unload hay in the barn. The 3-story barns are built on hillsides with the third story reachable by a small bridge built from a higher level a few yards from the barn. We would

pull a tractor load of hay into the top story of the barn, shove it from the wagon into the mow below. After hay was unloaded Mr. Ringnes scattered a few handfuls of salt on it. He said it was the way his stock acquired salt and also kept the hay in better condition. I've seen many things salted in my life, but that is the first time I've seen salt put on hay.

By the time we finished haying the carpenter had finished the chicken nests and roosts in the room that Asle had set aside for chickens in the barn. We cleaned out some boards and trash, tacked up some chicken wire and whitewashed the walls and ceiling of the room. While whitewashing the ceiling I believe I dripped more whitewash on me than I brushed on the ceiling. We finally completed the job and are ready for 200 12-week-old Leghorn pullets which arrive tomorrow.

Sightsee in Oslo

Two weeks ago Asle Ringnes, his brother Trultz, and I went to Oslo to spend a few days sightseeing and shopping. Asle's parents own a house in Oslo and live there during the winter. But in summer his father stays at a cabin in the mountains west of here where he fishes most of the time; his mother stays here on the Ringnes farm in a house close to the one I am staying in. This made housing arrangements for us in Oslo. The house was taken over by some German officers during the German occupation of 1942-1945. During this time Asle's parents lived here on the farm where his mother is now.

First morning in Oslo, Trultz showed me the University of Oslo where he is an instructor in theoretical astrophysics. During my visit I sat in on a lecture of Norwegian economics which was attended by 140 summer school students



"It wouldn't dare answer you back, dear!"

from America. Trultz also showed me an electron microscope used in the study of viruses, and a large mathematical machine used for solving differential equations. That afternoon we visited the Vigeland Sculptures. A Norwegian sculptor, Gustav Vigeland, working with tremendous care for 30 years, created a world of human beings and animals in stone, iron, wood and bronze. This park is one of the most beautiful and famous parks in Norway. That evening we went to a theater in the downtown section of Oslo. The picture was an American one, Bing Crosby and Jane Wyman, in "Here Comes The Groom."

Sees Olympic Ski-Jump

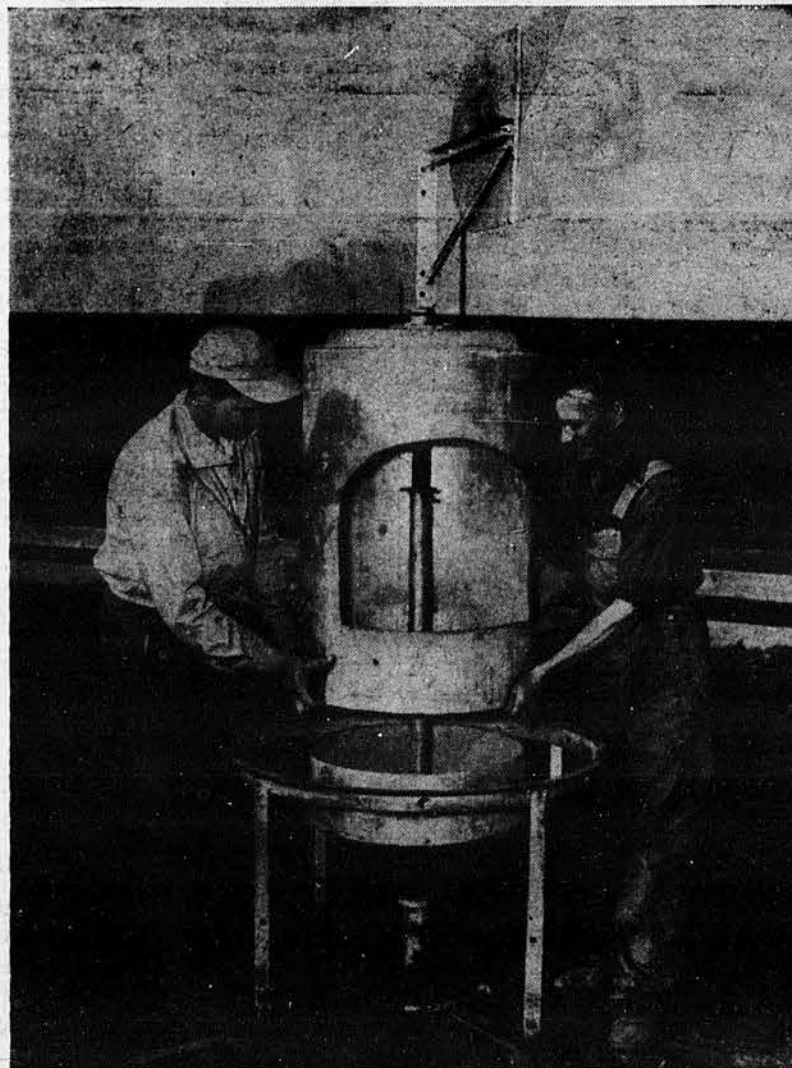
Another sight of interest to me while in Oslo was Holmenkollbakken. The place where olympic ski-jumping was held last winter. We also saw the bob-sled run where a heavy German team took top honors at the winter olympic game. The downhill ski races and the ski slalome were both held on a mountain about 4 miles from the farm I am on here in Hallingdal Valley. While enroute to the farm Asle showed me one of the largest and flattest farms in Norway. It is about 250 acres and evidently was the floor of a lake many years ago. That would be the only possible way such a flat place could occur in Norway which is all mountains and valleys.

Most of the cooking stoves here are electric. This is due mainly to the cheapness of electricity. About the only other electric appliance housewives have are irons. Other appliances are available but the price is quite high.

Asle told me recently we soon would go visit his father who is in the mountains about 100 miles northwest of here fishing. I'm sure it will be an enjoyable experience and am looking forward to it. Morna (so long) for now.

—Jack Grier

MADE THIS MINERAL FEEDER



MINERAL FEEDING is easy and more economical with this feeder built by Frank Sawyer, right, Atwood. Here, Jack Wise, left, Rawlins county agent, and Mr. Sawyer lift top section of feeder to show its construction. Top section is made of carbide drum. Shaft fits inside pipe on which drum can revolve as wind changes direction. Zirk fitting makes it easy to keep shaft lubricated for free motion. Guard around feeder is skid rim off tractor. Lateral extensions on legs kept feeder from being pushed over, altho 70 head ran to it all winter.

Ouch!

"How to Build a Good Electric Fence" is a new booklet of International Electric Co., Chicago. It has some good tips for you, and a copy is waiting for you by writing Farm Service Editor, Kansas Farmer, Topeka. No charge.

Agronomy Staff Adds Four

Four appointments to the Kansas State College agronomy department staff have been made.

James A. Hobbs will teach soils management and conservation courses and do research in soils management and liming. John E. Braum is superintendent of the new East-Central Kansas experiment field near Ottawa. Frank E. Lowry is superintendent of the new sandy land experiment field near St. John. Jake R. Ubel replaces Shannon Nickelson as assistant to L. L. Compton of the Kansas Crop Improvement Association. Much of his work will be inspecting fields for certification.

Coat With Galvanite!

A new method of cold galvanizing for surface protection of iron and steel is announced by the Galvanite Corp., New York. They have printed a booklet telling how to use Galvanite to protect objects against rust—tractor, pipes, casement windows, doors, gates, metal furniture. For a copy, write Farm Service Editor, Kansas Farmer, Topeka. No charge.

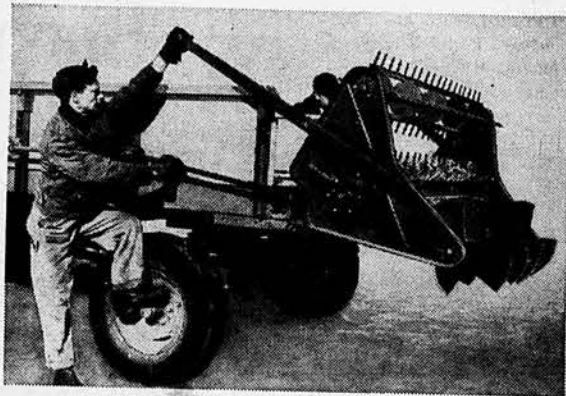
"Four major implements in one... Bulk Hauler- Forage Unit-Manure Spreader-Feeder"



MY RUGGED FARMHAND "POWER-BOX" UNIT does an outstanding job of every task—gives me more for my machinery investment.



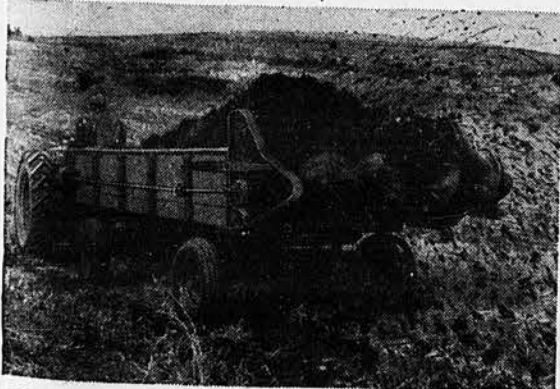
6-TON CAPACITY. My Farmhand "Power-Box" carries big, barn-sized loads. Hauls anything—anytime—anywhere! Its big capacity and easy maneuverability save time, eliminate hours of back-breaking labor. And it's been "field tested" for trouble-free, perfect performance with thousands of units now in use.



CHANGES QUICKLY. The basic first-level Farmhand "Power-Box" unit stays the same. I just add or remove extension sides or Feeder Attachment. And mounting or demounting the Spreader Attachment is an easy matter, takes less than fifteen minutes.

NOW IT'S A SELF-UNLOADING WAGON BOX. My Farmhand "Power-Box" empties while I watch. A single lever gives me complete control—lets me start or stop unloading instantly. I can dump the whole load or any

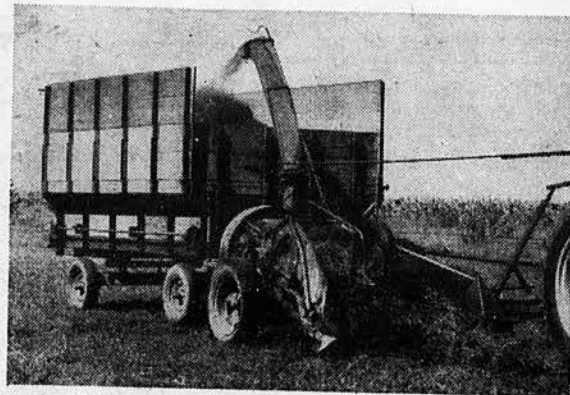
part of it. The "Power-Box" is built for hard use, too. Takes years and years of the roughest going. Has acid-resistant aluminum sides, tough treated marine plywood bed. Fits any rig. Mounts on wagon, truck or trailer.



NOW IT'S A SPREADER. I just mount the Spreader Attachment and automatically replace four old-fashioned manure spreaders. Those tough channel steel beater bars with welded steel teeth break up the hardest, lumpiest clods—distribute smoothly, evenly. Spread 6 tons in 6 minutes in 9 to 12-foot swaths.



NOW IT'S A FEEDER. Off comes the Spreader—on goes the Feeder. Now I'm mixing and feeding up to 145 bushels a minute! My Farmhand Feeder Attachment's power-driven drum and beaters thoroughly mix grain and roughage. And its adjustable cross conveyor unloads right where I want it to.



NOW IT'S A FORAGE UNIT. With the attachments removed and extension sides and tailgate added, my Farmhand "Power-Box" carries the biggest, bulkiest loads. Effortlessly handles any harvest. Rugged worm gear drive and heavy-duty roller chain conveyor give smooth, steady unloading—guard against costly breakdowns.

MOUNTINGS FOR 'POWER-BOX'



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HEAVY DUTY TRAILER



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Send me complete facts about Farmhand "Power-Box" and Attachments.

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Call your Standard Oil Man today!



Thoughts TO LIVE BY

"Something to Say"

A SPEECH WAS BROADCAST to the Nation. Millions of people heard the address, many of whom saw the speaker by means of television. As I listened, an old observation came to my mind: "There are two kinds of speakers—those who have something to say, and those who have to say something."

Amos was a Hebrew prophet who lived in Judah but prophesied in Israel. The judgment he pronounced was not pleasant and irritated his listeners. They tried to silence him. But he pointed out that he was not a professional prophet. He was a herdsman and dresser of sycamore trees. He left his own work to go on this mission. He had something to say. Indeed, the message of the prophets was sometimes called a burden. It weighed heavily upon them until it was expressed. For them to keep silent was like shutting up a fire within their bones. They had something to say. And for them, there was no peace until it was said. There have been politicians and preachers who had something to say. Lincoln's remarks at Gettysburg and Jonah's warning at Nineveh are telling illustrations.

But alas, there are many people who have to say something. Edward Everett, one of the great orators of his day, was invited to give the main address at the dedication of the national cemetery at Gettysburg. He had to say something. He prepared for weeks, and he took an hour and a half to deliver his oration, but no one remembers what he said. Jonah, who was mentioned before, had to say something. In fact, he was coerced into going to Nineveh. But this strange renegade revivalist who had to say something also had something to say.

According to a story that is widely circulated, Albert Einstein was once invited to address some scholars at a dinner meeting. After the meal was finished and the stories were told, he was introduced. What he said surprised nearly everyone. He told his listeners that he didn't have anything to say, so he wasn't going to make a speech. If and when

he did have something to say, he would be glad to come back and talk to them. Hurrah for such courage! Millions of people go to thousands of meetings every month to hear speakers who have to say something. No one expects anything profound to happen. It is simply a matter of having a program for the meeting. Who ever heard of having a meeting without a program? So someone must say something and others must listen.

These poor speakers—educators, clergymen, attorneys, public relations officers, and politicians—per-spire over emasculated manuscripts every day. They must say something. We people who write regular columns find a deadline constantly approaching. We must write something. The difference between the good and bad writer is really this—does he have something to write?

Don't we all face this problem in one form or another. At a neighbor's silver wedding anniversary, we are introduced to a stranger. He has come from out of the state to share this happy occasion. Yes, we check on the name and comment on the weather, and then there is a long interval of silence. We must say something, but what?

There are three subjects from which we can choose: people, things or ideas. It is easy to talk about people. Running down some acquaintance or leader requires very little ability. It is a bit more difficult to speak intelligently about things—houses, cars, farm machinery, dishes, games. But the mark of a good conversationalist is his ability to talk about ideas. Why do people celebrate silver wedding anniversaries? Is the discipline a happy home requires worth while? Is the family an essential element in democracy? What does democracy mean and how is it superior to communism?

It may be embarrassing to some people, but it will be interesting to nearly everyone: the next time you must say something, check on yourself to see whether you really have something to say.

—Larry Schwarz

Beating Two Grain Enemies

(Continued from Page 1)

eds into the dryer by gravity and 2 large heat and blower units go to work it from top and bottom. "Five million BTU's with a large volume of air is used to reduce moisture in the grain," explains Mr. Martin.

Where moisture in grain is too high, farmers pay a charge of 2 cents a bushel for each point the moisture is reduced and also take the shrink. "Most high-moisture grain is due to harvesting too early," says Mr. Martin, "but many farmers would rather pay a drying charge than risk hail or

other weather hazards an extra few days."

The elevator also does custom drying for farmers who want to store grain at home. Here there is a charge of 2 cents a bushel for each point moisture is reduced, plus 5 cents a bushel handling charge.

This summer the huge drying unit has been used to reduce heat in wheat brought to the elevator for storage. "Much of this year's crop tested as high as 110 degrees," says Mr. Martin. "We ran it thru the dryer with the heat units turned off but blowers on and reduced temperature to 90 or 95 degrees, considered a safe storage temperature. We make no charge for reducing temperature."

Other elevators over Kansas have installed similar dryers and are getting at the problem of overcoming heat and moisture in Kansas grain crops. It is a big step forward in maintaining the high quality of Kansas grains.

Print Name, Please

Kansas Farmer would appreciate it if you will please print your name clearly when writing for booklets and leaflets we have available. Thank you.

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All these add up to More Money Per Acre. Don't be satisfied with ordinary hybrids. Grow UNITED-HAGIE and Compare!



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RITE-WAY SWING MILKER



COMPLETE UNITS Regular size \$9950 East of Rockies Extra large size available

easiest to clean!

Two-section pail unclamps in middle—makes ALL surfaces easy to wash—easy to see!

Spend a lot less time cleaning with a Rite-Way Swing—the only milker with a pail that can be taken apart so you can see what you are cleaning. No awkward reaching around trying to wash hidden parts. With a Swing, you see when the pail is clean—a good thing to know when a man's living depends on his milk check.

Easy-to-pour pail. Quick Swing action means cows are milked out completely with no hand stripping.

See on your own cows why Swing milking is so right! Your Rite-Way dealer will be glad to come out, or write Dept. K.



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DANIEL GOES TO GREECE

I have lived in 5 different homes, poverty is widespread in this country, average farm is 6 to 8 acres

Remember, Kansas Farmer promised to bring you letters from 2 of our Kansas 4-H'ers who are spending some time on farms overseas this summer. Here is the third one from Daniel Petracek, of Oberlin, who has gone to Greece.

DEAR MR. GILKESON (July 24, 1952, Salonica, Greece): Greece has proved very interesting and agreeable to me. I have been here exactly a month now, and I have enjoyed very much every day of it, especially the last week and a half spent actually living in the Greek homes here in the Salonica area.



Daniel Petracek

Previous to this, the 3 of us, who are here on this program together, had been shuttled back and forth among the Farm Cooperation and the Greek Ministry of Agriculture. This was very interesting also, because we were able to visit the experiment stations and reclamation projects. However, we were never able to be in close contact with the Greek people and really get to know them during this time. Since then, the 3 of us have separated into different areas of Greece, and we are entirely on our own, so to speak.

Is 4 Different Villages

I have remained in this area and have been living in the villages with the families. During these few days so far I have stayed in 5 different homes in 4 villages, so I'm really getting around and meeting a lot of people. I have had a great time in every one of the homes I have stayed in so far, and my only objection is that I was not able to stay longer. We would just get acquainted where we could begin to enjoy our company, and then I would have to move. Another drawback to such a short visit is that you are there such a short time you are regarded as entirely a guest, and they go all out to please you, preparing big meals, and quit working for the day to be with you. If we were able to stay a week or two we would be able to fit into the family routine. In this way we could do a little work and also be able to understand them better.

I understand that in the Laerissa area of Central Greece, I will be given an opportunity to work and live with families for a longer period. I certainly

See Topeka!

Your State Capitol has many spots of interest for your enjoyment and inspection during a trip to Topeka. "Topeka Highlights" is a new booklet listing them in detail. Publisher is Topeka Chamber of Commerce. For your free copy, write Farm Service Editor, Kansas Farmer, Topeka.

hope so, because I know I would benefit a great deal by it.

The main reason Greek families are reluctant to keep anyone for any length of time is because of the poverty that is so prevalent thruout all of Greece. The average-size farm is only 6 to 8 acres, so really they do not need anyone to come help them, as the family can handle that size farm very easily, even by using the primitive tools they have. Therefore, someone else staying with them is only another mouth to feed, which most of them cannot afford.

A Huge Population

Poverty is a major problem all over Greece. This is due largely to overpopulation. Greece is a country that in area is only 1/4 the size of Kansas; however, its population is 4 times as great.

A great deal has been done during the last 4 or 5 years, however, thru the American Aid by the Marshall Plan, ECA and MSA Mission. In this way, Greece is gradually being built up, and

it is hoped to be raised from its present status of having the lowest standard of living in all of Europe. A great deal of this money has gone into projects in the cities, that will not greatly help the average Greek, but some of it has actually reached the farmers, and really doing miracles. Production has been increased tremendously by fertilization, soil conservation practices, irrigation, land reclamation. Irrigation has been one of the greatest contributions, because the moisture problem is great in most areas. Average rainfall is only about 15 to 20 inches and most of that comes in winter when it is least needed. To date, nearly 1,000 wells have been drilled for irrigation since American Aid was started.

I have found the country as a whole very beautiful and picturesque, especially near the seashores, of which Greece has many miles. Looking out over the countryside, I see a very beautiful scene of green and yellow checkerboard pattern covering the hillsides. This is a result of the small fields of an acre or less cotton, wheat, or grapes. There are many olive trees dotting the countryside, also.

Very few farmers can afford tractors or automobiles, so most of the work is done by oxen, horses or donkeys. The poor little burros certainly do their



"That's beautiful, Sammy! Take it out on the porch so the neighbors can hear!"

share of the work around here. It isn't unusual at all to see one carrying a load as large as himself besides someone riding.

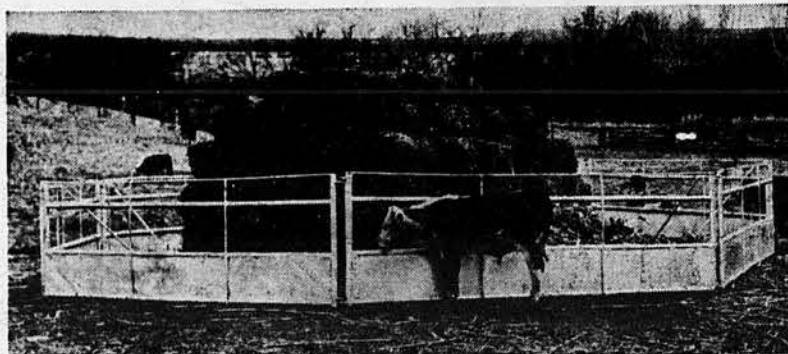
Very scarce in many villages are electrical power, radios, telephones. But a great many have come into being thru loans from American Funds, so gradually, altho very slowly, Greek farmers are beginning to realize a better way of life and are striving more to obtain it.

Poor little poverty-stricken Greece and her many problems have become of great interest to me. It is really a challenging situation here, and I am very happy to be part of it. There is no country in Europe I would rather be than here in Greece, and nowhere have I seen people so sincere, kind, and simple. It is really great I have been given the opportunity to live and share their life with them this summer, and I am having a wonderful experience I know I shall never forget.—Daniel Petracek, IFYE to Greece.

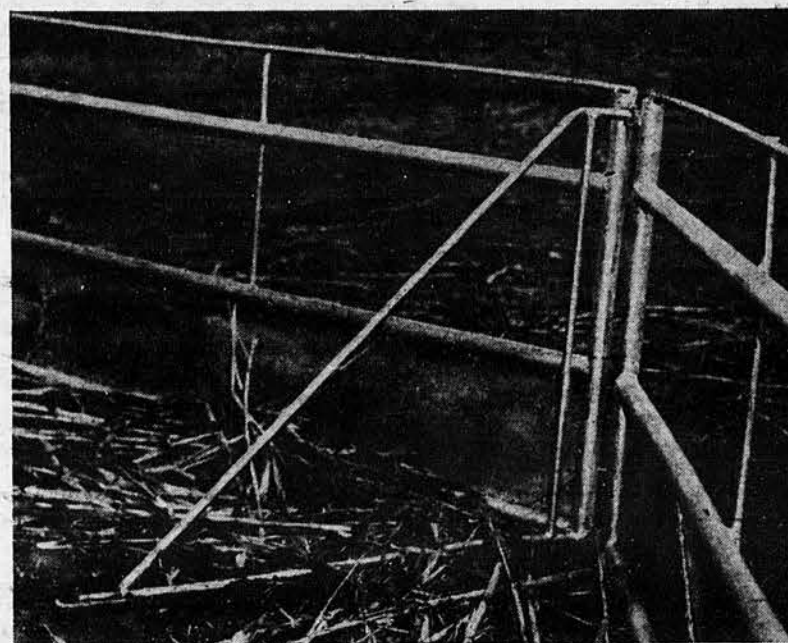
EASY-TO-HANDLE FEED RACK



PANELS of portable rack are 12 feet long, which makes them easy to load on most farm trucks. When set up in field or lot they are joined in chain link fashion by 2 bolts at each joint.



AN ATTRACTIVE and efficient portable feed rack like this one on Otto Eulert ranch, Russell county, can be made of old oil well materials welded and covered with aluminum paint.



TRIANGULAR rod braces spiked down inside circle, keep side panels rigid. These panels also can be set in straight line. Mr. Eulert feeds in circle from feed pile in center as he thinks there is less spoilage.

Wins \$25 Hort College Award

The Emmett Blood Award for the "outstanding graduating senior" Kansas State College horticulture department for 1952 goes to Charles G. Doughty, Kansas City, Kan. Five dollars of the \$25 prize goes to a life membership in the Kansas State Horticultural Society. Mr. Doughty now is doing graduate work at the Washington State College, in the horticulture department.

U. S. Honor to Kansas 4-H Club

A Kansas 4-H Club has received a national award from Freedom Foundation, Inc., Valley Forge, Pa. Naomi Stadel, representing the Richmond 4-H Club of Pratt, received the club's award in the program's general category, for her club's citizenship activity program.

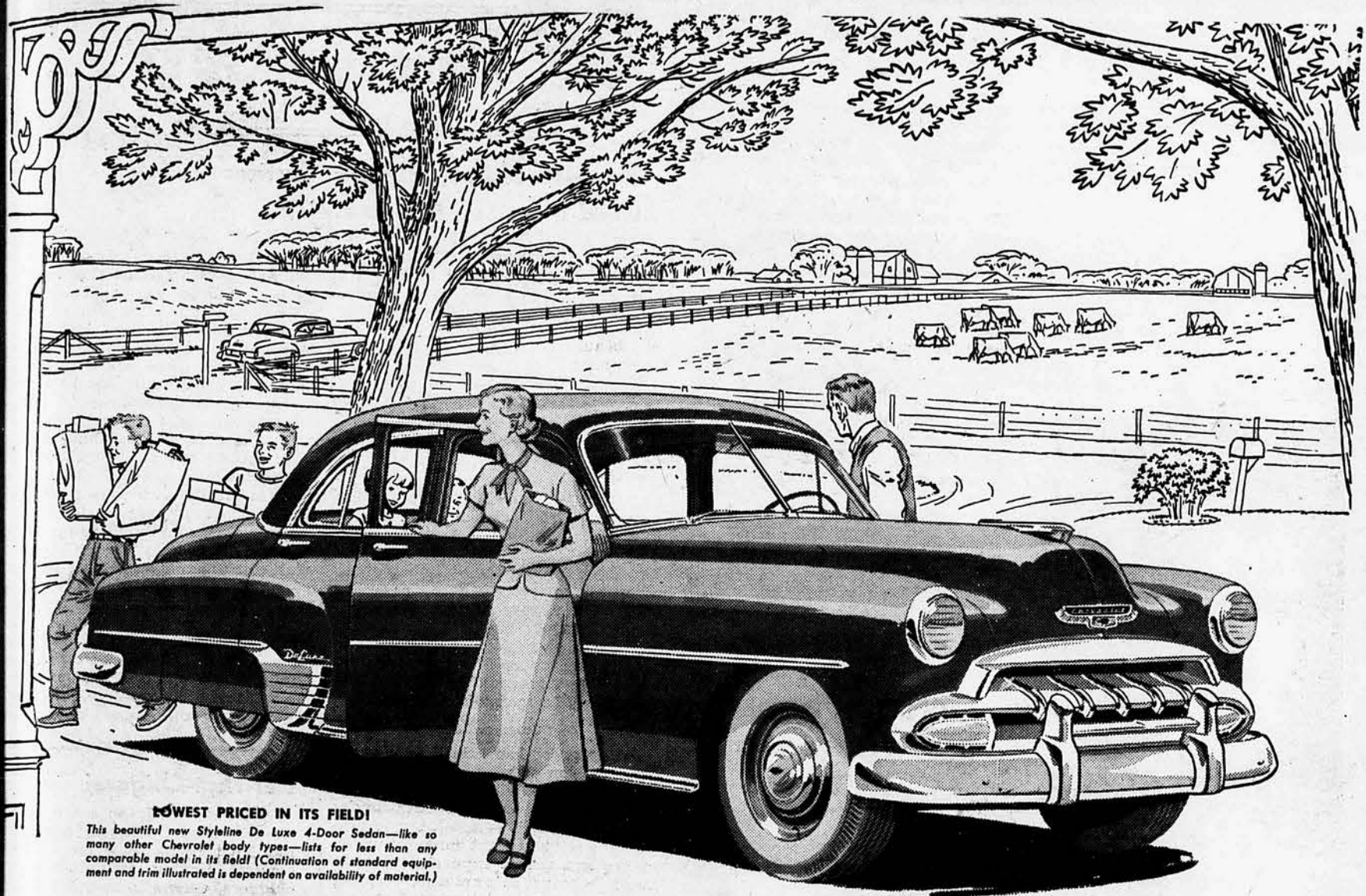
The Freedom Foundation awards are made in recognition of services judged by a panel as contributing greatly to the bringing about of a better understanding of freedom during 1951. There were 4 other Kansas awards.

Add to Hays Experiment Staff

Named to the Kansas State College branch experiment station staff at Hays is Wayne Fowler, formerly of Circleville, announces Dr. A. D. Weber, director of experiment stations.

Answer to a "Why"

Why does the stock farmer in the U. S. need more silos? The National Silage Educational Committee, New York, has published a leaflet giving many answers. Some are value of silage as feed; silage makes milk more profitably; can be used to level out irregular or uncertain seasonal forage supplies. For a copy of the leaflet, write the Farm Service Editor, Kansas Farmer, Topeka. No charge.



LOWEST PRICED IN ITS FIELD!

This beautiful new Styleline De Luxe 4-Door Sedan—like so many other Chevrolet body types—lists for less than any comparable model in its field! (Continuation of standard equipment and trim illustrated is dependent on availability of material.)

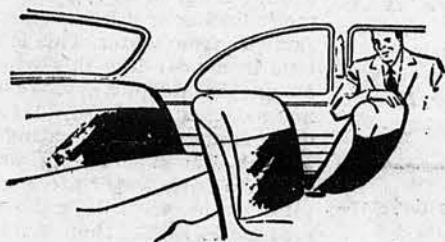
All the room and comfort you want!

The new 1952 Chevrolet is a big and beautiful car in every way. Its solid and substantial Body by Fisher gives you all the hip-room, elbow-room and shoulder-room you need for real comfort.

It rides like a big car. Long trips are easy with new Quick-Reflex shock absorber action that cradles you over bumps, smooths the ride. And the big 58¾" rear tread, widest in Chevrolet's field, gives you extra steadiness on the road.

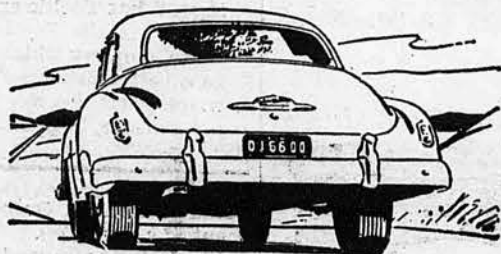
Smoother engine performance is another thing that adds to your comfort. New engine mountings "screen out" vibration . . . make power so smooth you'd hardly know the engine's in the car.

With all its extra advantages, Chevrolet is economical to buy and own. Lowest-priced line in its field. Low upkeep cost. Traditionally higher resale value. See your Chevrolet dealer. Chevrolet Division of General Motors, Detroit 2, Michigan.



Big, Wide Seats with Fine Upholstery

Inside, your Chevrolet looks like the most costly cars. Interior trim as well as upholstery on the big, wide seats is color-matched to harmonize with exterior colors (De Luxe Sedans and Coupes).



Widest Tread in its Field for Steady Riding

Chevrolet's extra-wide rear tread gives road-hugging steadiness on straightaway and curves. You enjoy, too, the handling ease of Center-Point Steering . . . reduces turning effort and road shock.



New Softer, Smoother Knee-Action Ride

Chevrolet's exclusive unitized Knee-Action sets the standard for comfort in the low-price field. Now the ride is softer and smoother than ever with new Quick-Reflex shock absorber action.

MORE PEOPLE BUY CHEVROLETS THAN ANY OTHER CAR!



The Only Fine Cars **PRICED SO LOW!**

Pulling a Combine is *Heavy Duty* Work!



Heavy Duty Work Calls For Phillips 66 Heavy Duty Premium Motor Oil. Tractors are called on to do any number of tough jobs on the farm. Wear and tear on the engine results . . . unless you are particular about your oil. Guard against undue wear, corrosion, sludge and varnish deposits with the oil that's

designed to stand up under rugged operating conditions—the oil that can take it!

Use Phillips 66 Heavy Duty Premium Motor Oil in all your farm engines. It has the quality and dependability you want and need. See your Phillips 66 Dealer or Tank Truck Driver.

Get Phillips 66 Heavy Duty Premium Motor Oil...

WITH ALL OF THESE GREAT ADVANTAGES:

LOW OIL CONSUMPTION: Phillips 66 Heavy Duty Premium Motor Oil resists decomposition—keeps oil control rings free. Fewer make-up quarts are needed over long hours of operation.

BEARING PROTECTION: Engine acids are neutralized—so that bearing surfaces are effectively protected against pitting.

CLEANING ABILITY: A clean engine means more power, and less gasoline consumption—better all around performance!

WEAR PROTECTION: It reduces corrosive wear in your engine—guards piston rings and cylinder walls.

FOR YOUR CAR, TOO! Phillips 66 Heavy Duty Premium Motor Oil provides that extra measure of protection you want for your car.



Get New, Improved "Lubri-tection"



Dwight Hull SAYS . . .

These Three Management Practices Need More Summer Attention

MOST DAIRYMEN I have talked to agree hot, dry summer months are most difficult of the year to keep cows producing to their maximum ability. How to overcome this difficulty is a problem many of us would like to solve. Trying to analyze this situation, we have come to the conclusion there are at least 3 management practices that need more attention for best results. They are management of pasture, shade and water.

It has been several years since pastures have been as short and dry as this summer. A dairy cow just cannot maintain production on native pasture under present conditions. Many dairymen have been feeding some dry hay along with pasture, which is a good practice. Cows seem to respond to a little good-quality dry hay, even tho the pasture is considered good. However, with a short hay crop and no carryover, we are finding it most difficult to feed sufficient hay to maintain production.

Best Summer Pasture

Sudan grass has helped us a great deal, and up to now is probably the dairyman's best summer pasture crop. There are, however, several drawbacks to Sudan. One, it is necessary to prepare the soil and plant annually, which makes it a rather expensive pasture. Second, because it is not a sod-forming crop, it does not pasture well after a rain or in wet weather. And in extremely dry seasons, as this year, the carrying capacity is considerably reduced. Third, there is always some danger from poisoning and such danger is increased in a very dry season.

Pastures have proved the dairyman's most efficient means of maintaining milk production. Therefore, we believe dairymen would welcome more research with pasture crops that might help in maintaining and producing a more abundant growth during hot, dry

were apparently feeding in the pasture all night and being comfortable during the heat of the day.

I am quite sure Lee Mears doesn't have any better shade trees for his cows than we do, yet his cows use his shade and our cows refuse to use our shade. Perhaps we should be a cow psychologist to solve this problem. But since we cannot lay any claim to being a psychologist, we just have to use what cow sense we have and surmise the reason our cows do not use our shade is because of the location of our shade trees. They are in the north part of the pasture, with a hill to the south and a hedge row not far away on the west. Our assumption is that while we have the shade we do not have the breeze to go along with it. Cows evidently prefer the breeze or wind to the shade, but would use the shade if they could also get the breeze there.

If we had thought of this, or someone had told us, several years ago, we might have grown some shade in the

Get That Chigger!

Want some help on controlling one of the most annoying pests of man? Chiggers cause much discomfort, itching. How to locate chiggers, sprays to use, dusts to apply are given in "Chigger Control," USDA leaflet No. 302. For a copy, write Farm Service Editor, Kansas Farmer, Topeka. There is no charge.

proper place by now. After all, with proper care, it doesn't take too many years to grow a very satisfactory shade tree. We have many large ones around the farmstead that we planted, as little switches, a few short years ago. At any rate we have resolved to set out some trees next spring along the south side of the pasture, which the cows have chosen as their loafing spot on dry, hot days.

The third problem of water, I feel we are guilty of not paying enough attention to. It so happens this summer's loafing spot in our pasture is the farthest from water. This is especially true in a year like this when our inadequate pond goes dry. We have often noticed, even in winter, that a cow will quite frequently stop eating and take a drink. But in summer, if she is some distance from water after getting her fill of grass, she will lie down for several hours rather than make the long pull in the heat to get her drink. Yes, we are of the opinion it would pay not only to have shade properly located, but also to have water properly located.

Gone Fishin'

Ah, there's nothing like the satisfaction of a good catch of fish. And the fun and food, too! "Fishing—What Tackle and When" is a booklet of the South Bend (Ind.) Bait Company which can help you be a better fisherman. For a copy, write Farm Service Editor, Kansas Farmer, Topeka. No charge.

summer months. Or possible development of a new crop.

Shade is the second problem listed. Most dairy specialists tell us shade is very important for our dairy cows. It stands to reason it should be. However, I do not recall having seen any experimental data along this line.

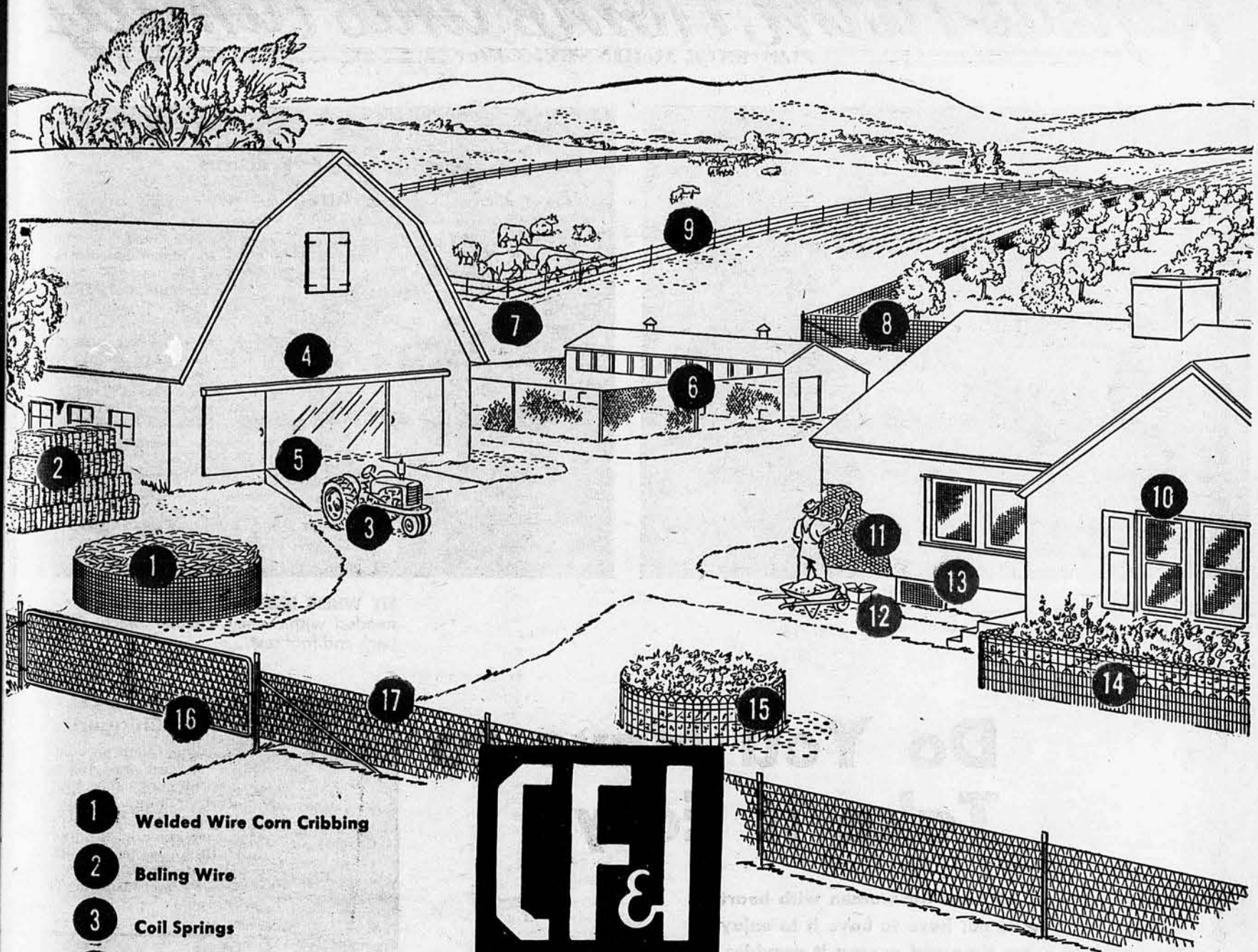
Puzzled About Our Cows

Since we have some nice large shade trees in our pasture, we have been puzzled for years because our cows have never rested in the shade of these trees. The heat of the day will find them near the south fence stretched out in the boiling hot sun. Our observation in other pastures is that frequently cattle are not using available shade.

We were talking to our good dairyman neighbor, Lee Mears, today, and he was telling us how well his cows were holding up in production this summer. He attributed it to the fact his cows came in from the pasture about 10 o'clock every morning and rested in the shade of the trees until around 4 o'clock in the afternoon. They



"Sure, sure, it's perfectly okay to take the expensive one—if you'd rather have it than the ones that make you look younger."



- 1 Welded Wire Corn Cribbing
- 2 Baling Wire
- 3 Coil Springs
- 4 Barn Door Hardware
- 5 Welded Wire Concrete Reinforcement
- 6 Poultry Fence and Netting
- 7 Barbed Wire and Stays
- 8 Woven Field Fence
- 9 Fence Posts
- 10 Insect Wire Screening
- 11 Stucco Netting
- 12 Nails
- 13 Hardware Cloth
- 14 Ornamental Fence
- 15 Flower Bed Border
- 16 Gates and Accessories
- 17 V-Mesh Fence



STEEL PRODUCTS for the FARM

From the Mississippi to the Pacific Coast, a growing family of CF&I steel products serves the farm. Made in the West, CF&I products are designed and manufactured for the farms of this area.

For more than a half century, the CF&I brand on any steel product has been your guide to quality and value. And today you'll find it on more farms than ever before. Look for the name CF&I whenever you buy these steel products for your farm.

THE COLORADO FUEL AND IRON CORPORATION, DENVER
THE CALIFORNIA WIRE CLOTH CORPORATION, OAKLAND

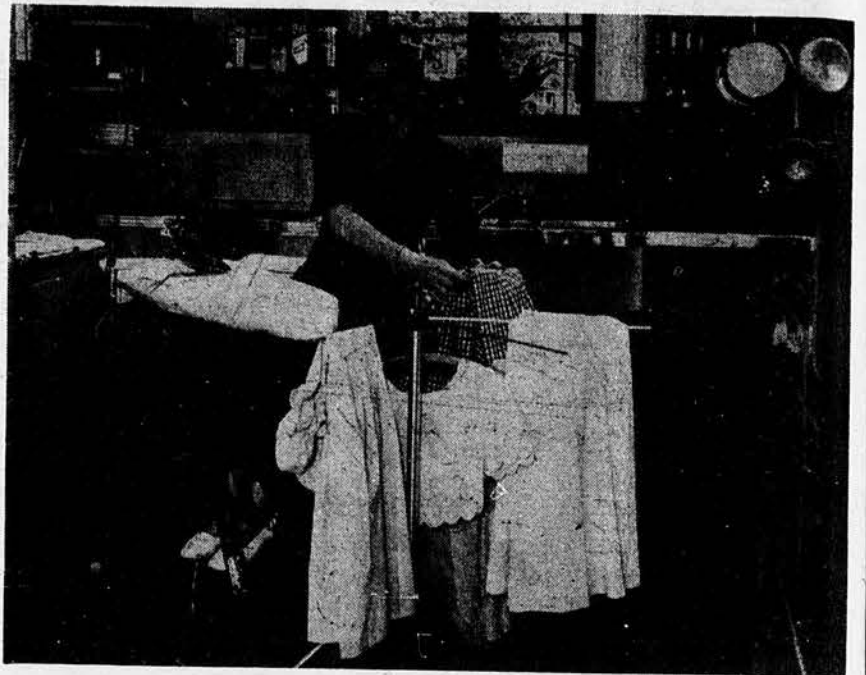
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THE COLORADO FUEL AND IRON CORPORATION





AT RIGHT OF SINK, fruit and vegetable peelings drop into paper-lined garbage can beneath.



SIT WHEN IRONING. Assemble everything needed within easy, circular reach. Chair has back and foot rest.

Do You Have to Take it Easy?

This kitchen was planned for women with heart disease, but you do not have to have it to enjoy the bonus of extra time and energy it provides.

WHEN THE DOCTOR tells a homemaker she can continue to do her housework if she "takes it easy" he may not be sufficiently familiar with her job to be of much assistance. That is one of the reasons the American Heart Association and various state heart associations were organized and the reason the "heart kitchen" was planned and built. Here it is, last word in an energy-saving kitchen. A long list of qualified folks were consulted in planning and building this kitchen; industrial and management engineers, home economists, physical therapists, architects and those interested in rehabilitation of the handicapped.

One of the best things about this kitchen is it is equally good for the ordinary homemaker, the ones who are still vigorous and hearty. It has been pointed out there are 3 keys to easier housework: efficient methods of work, proper

equipment and proper arrangement of equipment. A demonstration of all 3 can be seen in this heart kitchen. In studying these pictures, keep in mind that doors may be placed on all storage spaces if desired. For purposes of picture taking, these are open.

Most women whose health will not allow too much physical activity can streamline their work. They should allow for rest periods and alternate heavy with light work. A special "don't" is washing and ironing the same day.

Having the right equipment in the right place does not necessarily depend upon a full pocket-book, altho some new household appliances can be very helpful, indeed, to handicapped women, particularly the automatic washer and dryer. But simple shelves, working surfaces at the right height, wheeled tables and dustpans with handles are all inexpensive or can be made at home.

[Continued on Page 17]



GARBAGE CAN swings out with door. Pans and tools used in preparing foods with water are stored near sink.

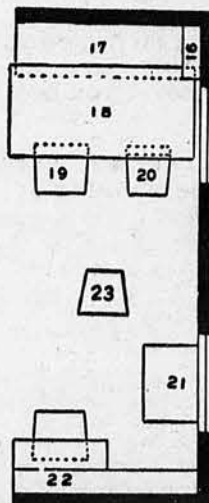
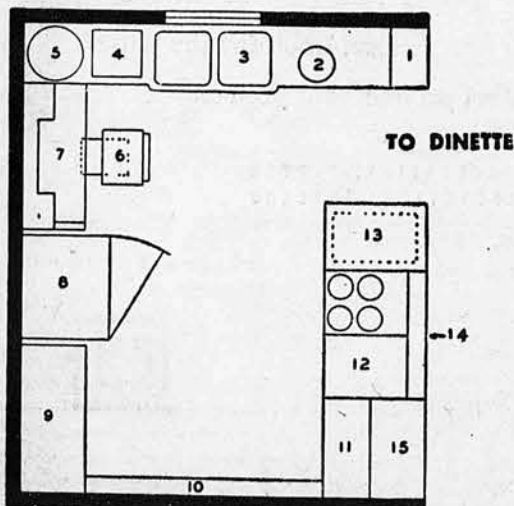


TABLE WITH WHEELS stored under work counter beside stove is handy for serving. Dinette table can be set in a single trip.

FLOOR PLAN of kitchen. Stove and sink are near entrance to dinette for easy serving. See corresponding numbers at end of story.



Work counters should not be so wide you must stretch to reach the back. Your most comfortable reach is 16 inches from each elbow in all directions. Store things you use most often on shelves where you neither stoop nor stretch to get them. You can save space and save lifting a stack of things to get one you want, if you'll use shelves that are different spaces apart. A large bowl needs a large space, but a cup needs little and you can build shelves easily between those you already have to accomplish this. Most shelves in the heart kitchen are adjustable.

Use vertical dividers for tall platters, trays, pie and muffin tins and lids. You will save much stooping and other unnecessary motions if you hang pots and pans on a cabinet door or even on the wall if dust is not a problem. Hang your rolling pin on 2 hooks so you can reach for it and start to use it in one continuous motion.

The Heart of the Home

We can supply readers with free copies of the complete booklet, "The Heart of the Home," prepared by the American Heart Association. It includes work simplification, time and motion studies and many photographs taken inside the model kitchen built with the heart patient in mind. This kitchen is ideal for the well homemaker, too. It will give her the luxury of extra time and energy for other activities. Write for a free copy to the Home Service Editor, *Kansas Farmer, Topeka.*

But first thing to do is place things where they are to be used. One example explains this. The coffeepot should be placed within arm's reach of the water supply, the stove and coffee can.

Sit whenever possible, when you wash dishes, prepare vegetables, mix ingredients, iron and feed the baby. When you iron, assemble everything you need within easy, circular reach; the portable table, a rack to hold finished clothes and seat yourself in a work chair with a comfortable back and foot rest.

Use a portable table for extra work space, to assemble and move things, dishes and food to and from the dining table, groceries as you place them where you use them first, cleaning supplies from one room to the other. Use gravity drop containers for flour and sugar and a step-on garbage can. Get

a stove with a high oven so there need be no stooping.

Unclutter your kitchen. Chances are that with a good look and some soul-searching you can gather together a basketful of gadgets you never use. Throw them away or let the baby use them for toys.

Whatever the size of your kitchen, your family or your pocketbook, you can make your kitchen work easier.

Key to Floor Plan of Kitchen and Dinette (See Page 16)

1. Shelves (open from both sides)
2. Garbage disposal and paring center
3. Double sink
4. Washing machine
5. Revolving shelves
6. Work chair
7. Mixing center (baking and mixing)
8. Refrigerator
9. Cleaning tools
10. Grocery storage
11. Storage for cooking utensils
12. Range and oven
13. Work counter (wheeled table underneath)
- 14, 15. Storage for company dinnerware
16. Storage shelf
17. Dinette bench, toy and hobby storage
18. Dinette table
- 19, 20. Dinette chairs
21. Record player and storage
22. Planning center and bookshelves
23. Rocker

Crusty Butter Bread

Use white or whole-wheat bread, leave crust on. Spread slices with softened butter, then cut crosswise in halves. Pack these half slices crust-side up in a small bread pan. Slices should fit the pan so they will stand upright. Spread more butter over the top crusts and sprinkle with sesame or poppy seeds. Bake in moderately hot oven (375°) for about 30 minutes. Serve piping hot. It's delicious!

September Fun

It's fun to have a school-days party in September—Readin' an' writin' an' 'rithmetic, also singin' and "jogaphy." Our leaflet, "A School Days Party," suggests invitations, decorations, entertainment, refreshments. Send 3c for a copy to the Entertainment Editor, *Kansas Farmer, Topeka.*

What to Do About Nail Biting

By MRS. MARION QUINLAN DAVIS

SOME TIME ago we received an inquiry from a reader who says, "I have a question. My little 3-year-old granddaughter bites her fingernails continually. We have tried everything, we know but nothing has been successful."

We turned this plea over to our writer on problems of children and here is her reply.

There is little any grandmother can do about the bad habits of her grandchildren, unless their parents ask for her advice and she has their full cooperation. Often grandma knows the problem when she sees it and the answers, too, but holds back her knowledge from parents who must learn for themselves.

Have a Question?

Do you have a behavior problem among your children? If so, we will welcome your question. All questions are turned over to our writer, Mrs. Marion Quinlan Davis, who has had many years experience in this field of child care and training. Send your questions to the Women's Editor, *Kansas Farmer, Topeka.*

Nail biting is closely related to thumb sucking. One authority says that perhaps one fourth of the children in the United States bite their nails. Nail biting, thumb sucking prolonged past babyhood, the habit of scratching the head, pulling at the ears or hair, chewing or rolling a handkerchief, bed-wetting past the age of 3, unusual fidgeting, all these are nervous disturbances. They are so common to childhood they cannot be considered abnormal. But they are undesirable.

Nail biting has its origin in tensions of which the child is usually unaware. She is finding temporary relief from tensions and dissatisfactions in biting her nails. It is not "done on purpose." It is an involuntary response. The child usually does not realize she is doing it, so it is difficult to find the causes behind the act.

Treat the whole child, not the symptom. Often unhappiness is the cause, she may be overexcited, or insecure, but sometimes it occurs in children who apparently are happy and well-adjusted. It gives an organic sensation of pleasure and satisfaction to the child. It is unpleasant to look at and to an adult looks like bad manners.

It is usually the sign of a high-strung, anxious, worrying child, who usually is fidgety also, quick and active in movements. It often is caused by fear, uncertainty, emotional strain, exciting activities with older children. Or it may be overstimulating movies, or television or radio programs or jealousy of another child in the family. A child can show excessive affection for one parent or for the baby in the family, then out of jealousy, insecurity, bite her nails, or wet the bed.

The best way to help a nail-biter is to stop helping her. Show no sign of concern and more important, feel no concern. A quiet, casual manner is best always.

She Needs Love

Usually, it's the family atmosphere that needs to be changed. Help the child to know she is needed, wanted and appreciated. Let her feel she is loved so she regains her sense of security. It will help if her parents sometimes include her in a hug, so she feels she is a real part of the family circle. Above all, avoid all comparisons to other children in the family.

By quiet observation find out what pressures are on the child. Is she warned, urged, nagged, hurried, corrected and scolded too much? Is too much expected of her? Is she afraid of either parent?

Are her eating, sleeping and toilet habits good? Does she have exercise outdoors and time to play with other children her age? Does she have a quiet time of from 30 to 40 minutes before meals and bedtime? At these times does she have interesting things to do with her hands?

Does the radio blare all day? Movies and television likely are too stimulat-

ing to a nail-biter. Is the child's mother rested or is she a distracted young mother of several small children, all needing attention?

Approve of the child's good habits and suggest some interesting occupation for her hands or offer her a toy to hold when she bites her nails.

You might try giving the mother a manicure set and suggest that she do her nails in the child's presence. As a reward for long nails or an incentive to letting them grow, mother could manicure the child's nails, too. Red polish may offend you, but it is less likely to be chewed off and looks better than nails gnawed to the quick!

Here's a Substitute For Mud

Does your little tot like to play in the mud? Then try this clay as a quickly-made mud substitute.

Sift together 1 cup flour, ½ to 1 cup of salt and 3 teaspoons alum. Add enough water to make a stiff dough. Color with food coloring. Or add tea or coffee in place of the water to give the clay a mud color. Mix well and mold into a ball. Leave out at room temperature overnight to ripen.

The more salt you add, the less sticky the clay will be. Wrap in wax paper or aluminum foil and store in the refrigerator.

Your small fry can roll mud balls and snakes to his heart's content. The clay is soft and pliable and easy for little hands to handle.

Men Better Fed

"As a rule, the men of the family are the best fed," says Dr. Hazel Stiebling of the Bureau of Human Nutrition and Home Economics. On the other hand the women and older children are the worst fed, she adds. When there is scarcely enough to go around, mothers tend to sacrifice for other family members. Even so, however, teen-age children with their high requirements, often get less than enough food, especially milk.

Transfer Designs In 3 Colors



by Alice Brooks

Twenty-four designs of old-fashioned girls and little nosegays in soft pink, blue, green. Iron them on, no embroidery needed. Washable, they may be applied to towels, sheets, pillowcases. Add ready-made eyelet for edging.

Pattern 25 cents. Address Needlework Editor, *Kansas Farmer, Topeka.* Twenty cents more for the new Needlework Catalog with complete pattern printed in the catalog.

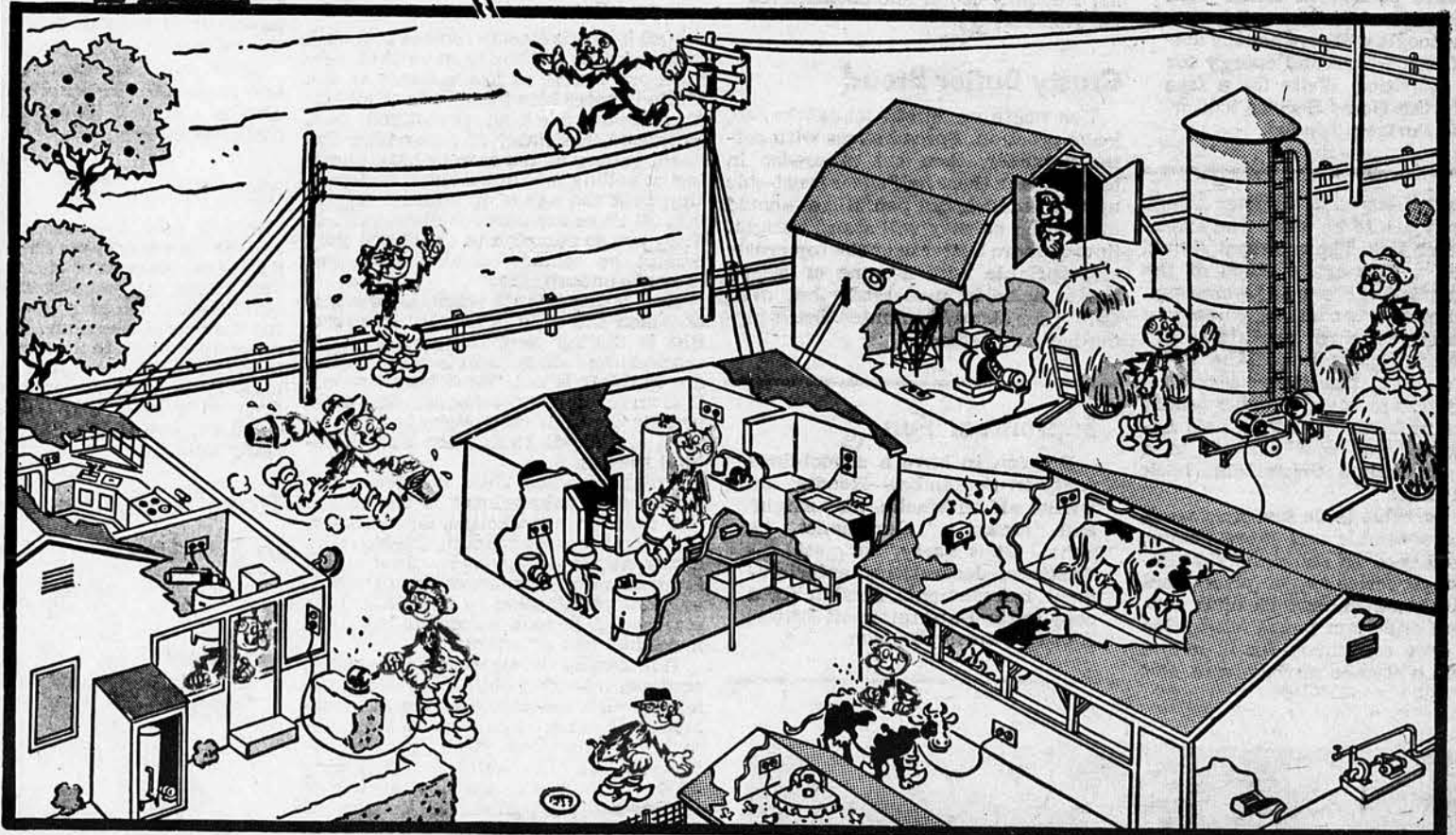


IRONING BOARD rolls easily on wheels. Laundry-cart-on-wheels with plastic liner may be used as shopping cart.



WIRE "Big" for Better Living

Now is the time to replace "Make-Shift" wiring with a planned Adequate Wiring system... get ready for your bigger-profit work-saving farm of Tomorrow!



More Profit, Less Work when you take on Reddy Kilowatt as your full-time hired hand. But Reddy has to have the proper wiring to do his best work. On four demonstration farms it was found that from 4 to 6% of the power paid for by farmers didn't reach the appliances because of too small and too long wires. Right now most of the farms would be money ahead by installing up-to-date wiring.

This IS the time to wire "Big" so that Reddy can help bring better living, electrically, to your farm. It's important that you plan an adequate wiring system for the future... because the use of electricity on farms is growing greater and greater every day in the year.

Only a few years back the typical

Kansas farm used an average of less than 100 kilowatt hours monthly. Looking ahead, Kansas utilities are planning to meet a demand for 750 kilowatt hours per month on the average farm. The record-breaking expansion of the postwar years was necessary to meet this farm demand. Reddy must be always ready when you want him.

So if you want Reddy to do MORE work, better... and at less cost... make sure your farm has adequate wiring. That means wiring that can carry the load TODAY... and the bigger loads TOMORROW.

ELECTRIC LIGHT AND POWER COMPANIES IN KANSAS

Central Kansas Power Company
Western Light & Telephone Company
The Kansas Power and Light Company

Kansas Gas and Electric Company
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Sew Your Own



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4602
SIZES
14 1/2-24 1/2



9237
SIZES
12-20

4760—Slenderizing 2-piecer for easy sewing. No waist seam and 3 sleeve versions. Women's sizes 34 to 48. Size 36 takes 4 yards 39-inch fabric.

4602—Smart, young, cool. In half sizes for shorter, fuller figure. Edged with lace. Sizes 14 1/2 to 24 1/2. Size 16 1/2 takes 4 1/4 yards 35-inch.

9237—Pretty for dress-up. Curved side panels, cross-over neckline, French cuffs. Misses sizes 12 to 20. Size 16 takes 4 3/4 yards 39-inch.

9181—Becoming Jr.-Miss. Simple casual with new collar, side-entrance pockets. Junior Miss sizes 11 to 17. Size 13 takes 4 1/4 yards 39-inch.

4522—Thrifty apron in tailored or gay party version. Sizes small 14-16; medium 18-20; large 40-42. Takes only 1 yard 35-inch for small size.

9064—Princess jumper with yoke plus puff-sleeved blouse. Panties, too. Child's size 2 to 10. Size 6 jumper 1 1/2 yards 35-inch; blouse 3/4 yard; panties 3/4 yard.



9181
SIZES
11-17



9064
SIZES
2-10



4522
SIZES
S-14-16
M-18-20
L-40-42

One Yd. 35"

Wire "BIG" For Your Frigidaire

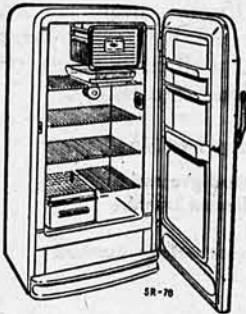
KITCHEN And LAUNDRY

Yes, when they tell you that you should wire "BIG" they're right! When electricity comes to your farm home you'll want adequate service for a Frigidaire Electric Range, Frigidaire Electric Water Heater, Frigidaire Dryer, yes, and Frigidaire Room Air Conditioner—all of which require 220-volt service.

And you'll need adequate outlets for your Frigidaire Refrigerator, Frigidaire Food Freezer, Frigidaire

Automatic Washer, Frigidaire Ironer and possibly for your Frigidaire Dehumidifier. All of these require only 115-volt service and your Frigidaire-dealer will suggest proper amperage.

It's easy to add your Frigidaire appliances if you wire "Big" from the beginning. And Frigidaire appliances give you such convenience, economy and long life that you'll want to talk to one of the dealers (below) as soon as the electric lines come to your place.



This 7.8 cu. ft. Frigidaire refrigerator is roomy and priced at only \$199.75.



The 30-inch automatic electric range with the largest home oven ever built is ideal for the farm home and priced at only \$219.75.



Here's the 9 cu. ft. Frigidaire Food Freezer (also available in 12 cu. ft. and 18 cu. ft.) which can soon pay for itself in economy. Only \$359.75.

SEE FRIGIDAIRE APPLIANCES AT ANY OF THESE QUALITY DEALERS

- | | | | |
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Wood Music Co.</p> <p>ARGONIA
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Wright-Burton Hdwe.</p> <p>ARLINGTON
Fay's Sundries & Appl.</p> <p>ARMA
Bosnio Hdwe. & Appl.</p> <p>ASHLAND
Grimes Appliance Co.</p> <p>ATTICA
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Jewell Lumber Co.</p> <p>JOHNSON
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Maytag Appliance Co.</p> <p>KIOWA
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A. A. Doerr Merc. Co.</p> <p>LEBANON
Lebanon Electric</p> <p>LEHIGH
Burkholder Lbr. Co.</p> <p>LENORA
Eldridge Electrical Co.</p> <p>LEON
Losh Motor Co.</p> <p>LEOTI
Western Hdwe. & Sup.</p> <p>LIBERAL
Hettie Appl.</p> <p>LINCOLN
B. G. Hall</p> <p>LINCOLNVILLE
Burkholder Lbr. Co.</p> <p>LINDSBURG
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C. F. Worman Elec.</p> <p>MEDICINE LODGE
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Anderson & Son Hdwe. & Impl.</p> <p>ONAGA
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Baker Furn. Store</p> <p>PHILLIPSBURG
Newell's Appl. Store</p> <p>PITTSBURG
Rockey's</p> <p>PLAINVILLE
Moshier Bros.</p> <p>PRAIRIE VIEW
Frisen Bros. Hdwe.</p> <p>PRAIRY
Link Electric</p> <p>PRETTY PRAIRIE
General Appliance Co.</p> <p>QUINTER
Quinter Appl. Store</p> <p>RILEY
Meyer Mercantile</p> <p>RUSSELL
Delnes Bros.</p> <p>ST. FRANCIS
Roel's Electric</p> <p>ST. JOHN
A.P. Electric Service</p> <p>ST. MARYS
Youngkamps Furn.</p> <p>SALINA
Goodhousekeepers Appl. Inc.</p> <p>SARASOTA
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Sanborn Lumber Co.</p> <p>SCOTT CITY
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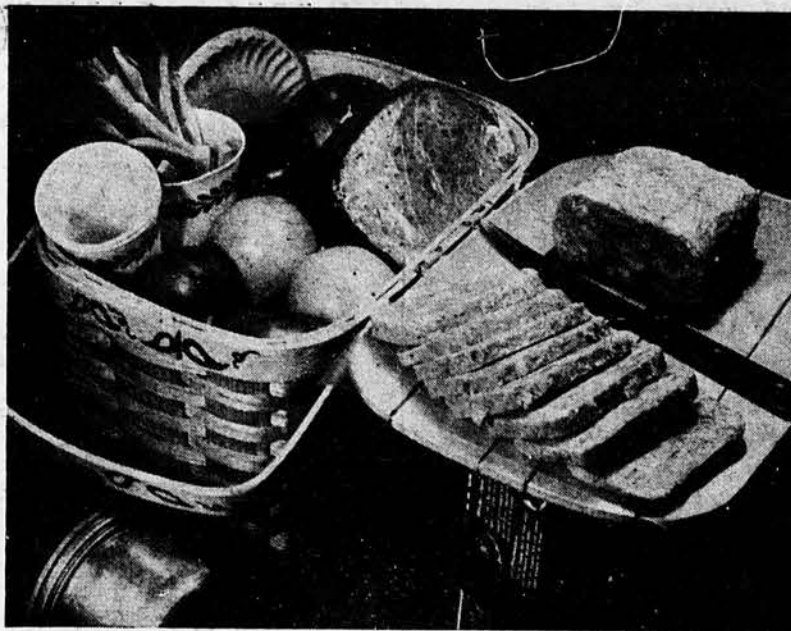
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THE RECIPE CORNER



PACK A PICNIC and eat outdoors often this summer. Be it backyard, the lake or fishing party on the creek, it's good to get away from the kitchen and your family is sure to approve. Canned meats are the basis for your meal for they're ready to eat, easily packed. Chill the meat, can and all before you leave. It will stay cold for quite a while and will slice more easily.

Ham Patties

- 3 cups cooked ground ham
- 1 cup dry bread crumbs
- ¼ cup milk
- ¾ cup chopped celery, cooked
- pepper
- 2 eggs
- 2 tablespoons water

Combine ham, ½ cup dry bread crumbs, milk, cooked celery, 1 beaten egg, and pepper. Shape mixture into 6 round, flat patties. Beat other egg with water. Dip patties into remaining bread crumbs, then dip into egg and again coat with crumbs. Cook patties in shallow fat in skillet until well-browned on both sides. Makes 6 servings. If you choose, serve on a slice of pineapple.

Hot Dutch Potato Salad

- 4 slices bacon
- ½ cup chopped onion
- ½ cup chopped green pepper
- ¼ cup vinegar
- 1 teaspoon salt
- ½ teaspoon pepper
- ½ teaspoon dry mustard
- 1 teaspoon sugar
- 1 egg, slightly beaten
- 1 quart hot, cooked, cubed potatoes
- ¼ cup chopped pimento
- 3 hard-cooked eggs, diced

Cut bacon into strips and pan-fry. Add onion and green pepper. Cook 3 minutes. Add vinegar, salt, pepper, mustard, sugar and beaten egg. Cook slightly. Add cubed potatoes, pimento and hard-cooked eggs. Blend lightly. Serve hot. Makes about 8 generous servings.

Onion Au Gratin

- 8 to 10 medium onions
- 6 tablespoons butter
- 4 tablespoons flour
- 2 cups milk
- 1 cup grated cheese
- ½ teaspoon salt
- 1 cup dry bread crumbs

Peel onions under running water, then cook in a large amount of boiling salted water in an open kettle until tender. Drain. Melt 4 tablespoons of the butter, blend with flour, add milk, stirring all the time. Cook until the consistency of thick cream. Remove from fire and add grated cheese and salt. Turn into a greased 2-quart casserole. Melt the remaining 2 tablespoons of butter, add part of bread crumbs and stir rapidly, so all will be buttered. Sprinkle remaining crumbs over the top of the onions and bake in a hot oven (450°), until brown, about 15 minutes. Serves 6.

Bing Cherry Salad

- 1 cup Bing cherries, pitted
- 1 cup pineapple, pieces or crushed
- 4 teaspoons gelatin
- ½ cup cold water
- juice of 1 lemon
- 1½ cups fruit juices

Drain the canned fruit, reserving the juices. Soak the gelatin in cold water 5 minutes, then melt thoroly over hot water, stirring to hasten the process. Add fruit juices. Pour gelatin mixture over fruit in mold and chill in refrigerator.

Liver-Noodle Casserole

- 1 pound liver, sliced thin
- ¼ cup flour
- ¼ teaspoon salt
- ¼ teaspoon pepper
- 3 tablespoons bacon fat
- 1 can concentrated consomme or 2 bouillon cubes
- 4 cups cooked noodles
- ½ cup celery, diced fine
- ¼ cup chopped onion

Dip liver in flour, salt and pepper and brown in hot bacon fat in heavy skillet. Remove liver. Pour in consomme. If you use bouillon cubes, dissolve them first in ¼ cup hot water and then pour into skillet. Bring to a boil and stir. Combine cooked noodles, celery and onion in a 2-quart casserole. Arrange liver on top. Pour in consomme and bake 40 minutes.

Prune-Peanut Salad

- 2 dozen cooked prunes
- ½ cup cottage cheese
- 2 teaspoons grated orange rind
- 4 tablespoons chopped peanuts
- salt to taste
- salad dressing

Pit and chill prunes. Then mix together cottage cheese, orange rind, peanuts and salt. Moisten the mixture with salad dressing and stuff into prunes. Serve on crisp lettuce. Serves 4.

Fun and Food

Ice cream, soda water in its various forms and flavors, some pretty and flavorful sauce or topping . . . those are the ingredients for the best homemade refreshments. Simple enough for a 10-year-old to make but good enough for anyone to eat. Here they are in a variety of colors and flavors:

Chocolate Soda: 2 tablespoons chocolate sirup, ½ cup gingerale, 1 cup milk and a scoop of vanilla ice cream. Stir together in a tall glass.

Strawberry Blonde: 1 bottle straw-

berry pop, 2 cups milk and a scoop of vanilla ice cream. Blend together in a tall glass.

Jam Session: 1 tablespoon any kind of jam, ½ cup milk, 1 scoop of vanilla ice cream. Blend slightly in tall glass and serve immediately.

Boston Cooler: Put a scoop of vanilla ice cream in a glass, pour in gingerale to fill. Serve with spoon and straw.

Pineapple Soda: Two tablespoons crushed pineapple, ½ bottle carbonated water and 1 scoop vanilla ice cream. Put in tall glass and serve with spoon and straw.

News in a topping for ice cream is a chocolate sauce made by stirring crunchy peanut butter into canned chocolate sauce. Or crush peanut brittle or peppermint candy and fold into whipped cream.

Small fry can make caramel sauce by melting caramel candy squares in a double boiler with a little milk. Serve on ice cream.

How To Make Money

Here is a new leaflet called "How to Make Money for Club and Church." It contains 3 splendid ideas, all practical and tried in farm communities. Send 3 cents to the Home Editor, *Kansas Farmer*, Topeka. Your order will be given prompt attention.

Sang It in School

Dear Editor: In reference to "Kansas Land," the poem published in *Kansas Farmer* for January 19, in the nineties ('94, '95 or '96) we sang it in school, consequently it had time enough to be revamped several times.

This version was written on the blackboard by the teacher for us to copy and learn: (1st verse and chorus were as printed in *Kansas Farmer*.)

2nd verse

*My horses are of Norman stock,
My chickens all are Plymouth Rock,
My cows are Jerseys, very fine,
And Poland Chinas are my swine.*

3rd verse

*When first I came to get my start
The houses all were far apart
But now a home on every claim
Something they wanted just the same.*

About 1896 we learned a Sunflower Song to the tune of "Old Folks at Home" and at one of our special school programs, when our parents and other folks "from beyond Loontown and Zoar" attended, a curtain of unbleached muslin was stretched across the front of the platform. In it were oval or round apertures surrounded by a ring of yellow petals and "us kids" inserted our faces in the apertures and sang "The Sunflower Song." It was received with much applause and we felt sure we had "made a hit," besides enjoying ourselves immensely.

Those were the days of "The Surrey With the Fringe on Top." There were occasional rumors, few and far between, that someone was trying to invent a horseless carriage—but we wondered why anyone wanted one! Some of us do yet.

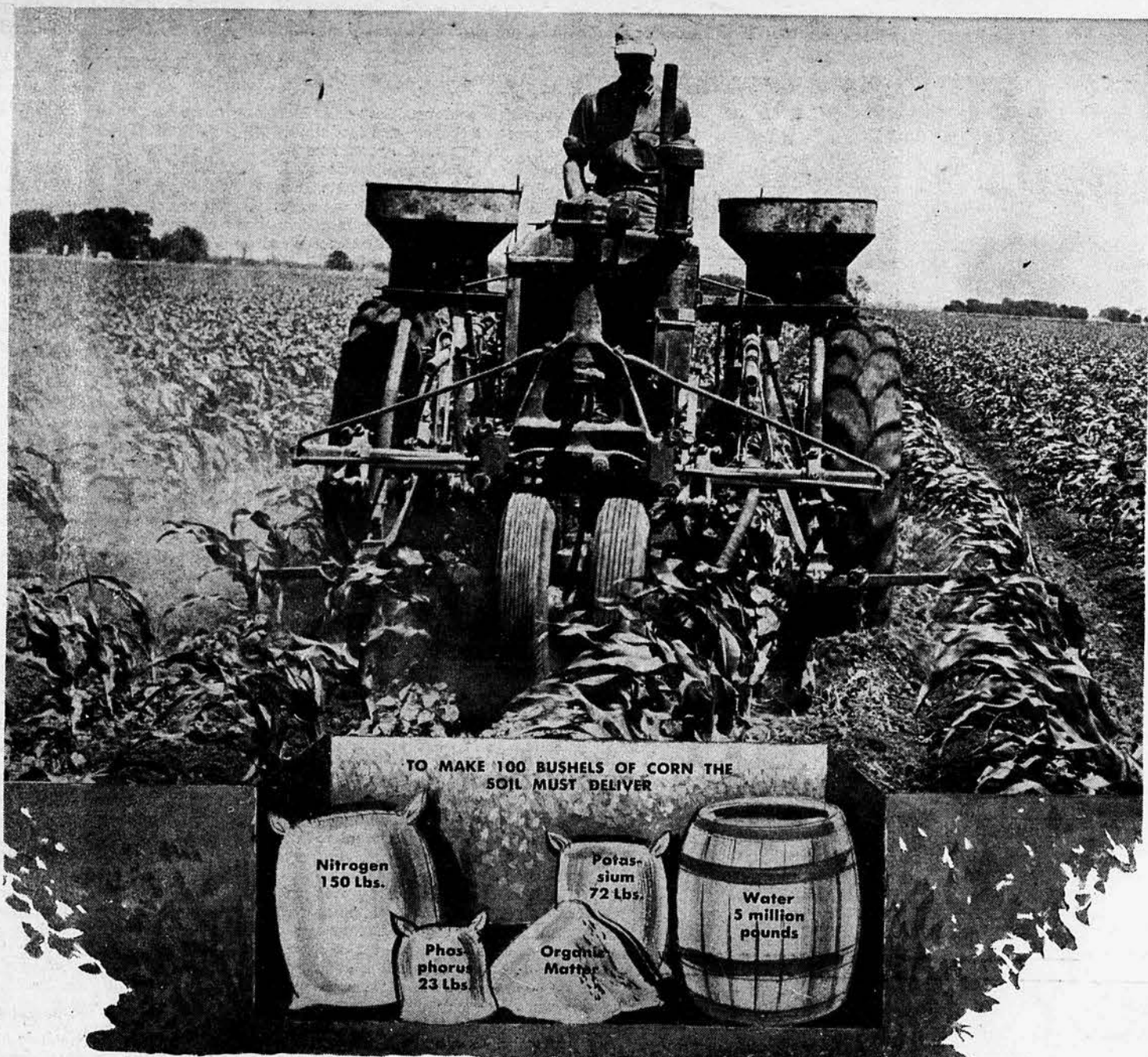
—Virginia M. Hiner, Garnett.

Jiffy Lemonade

For the quick snack, jiffy lemonade is hard to beat. Make it ahead of time, cover tightly in a glass jar and keep in the refrigerator. Combine 2 cups fresh lemon juice with 4 teaspoons grated lemon peel and 1½ cups sugar. At serving time, pour ¼ cup of this sirup into each tall glass, fill with ice cubes and water.

Good Pickle Recipes

Brined or cured pickles, fruit pickles and relishes in our leaflet, "Pickles and Relishes." *Kansas Farmer's Bulletin Service*, Topeka, will be glad to send you a copy of the leaflet upon request.



You get **QUICK** results and **LASTING** results from this new system of . . .

Fertility Build-up and Fertility Upkeep

By **M. N. BEELER**

NEW KNOW-HOW builds soil fertility in a hurry. That means better yields and better pay from crops. You no longer need to wait years and years for results. You no longer need live in want while trying to tease a profitable yield out of a reluctant soil. Scientists have found a way to speed fertility build-up and insure upkeep.

With this new system of soil fertility management, you can set any crop-yield goal within a season and just about make it. It's simple, sensible and as certain as anything in life. Easy to follow, too.

Here is the reasoning back of the new system as explained by Dr. R. H. Bray, Illinois College of Agriculture:

"Feed the soil and let it feed the crops." Make the land a self-feeder. Then plants can get from the food they need in amounts they need and when they need it. They'll do a good job of balancing rations both in seasons of drouth and in seasons of plentiful moisture.

Soil fertility is the foundation of any profitable system of balanced farming. Balance between fertility outgo and input is the first requirement in maintaining such a system. None

of the other balances can be effected or maintained without it.

Doctor Bray's recipe for profitable fertility is divided into 2 parts—build-up and upkeep. The build-up can be done in two ways—in a one-shot treatment in which all the lime and fertilizers are applied, or in several treatments spread over 2 or more rotations. The first method will require a big lump-sum expenditure for poor land. But it also will pay off sooner, in the next crop after treatment. The second method spreads the cash outlay over several seasons, but also gives slower returns. Either procedure is much faster than the 20 years to a generation required by previous processes. Which method you follow, says Doctor Bray, depends on your circumstances. In either case, the sooner you make the build-up, the sooner you can put your soil feeding on a maintenance basis.

Another top soil scientist, Dr. Emil Truog of Wisconsin, puts it this way: "Poor land is like a flat tire. The tire needs air pressure and the land needs fertility pressure. You don't inflate a tire by stages—a few pounds now, a few next week and some more later. Instead, you put in the right pressure at one filling. So why not put

the right fertility pressure into a farm all at once?"

You don't guess when you're inflating a tire. Or you shouldn't. You use a gauge. So you shouldn't guess in inflating a farm. Use a gauge—the county or state soil testing laboratory.

Take samples, field by field. The laboratory or the county agent will supply directions. The best plan is to follow a definite sampling pattern that will cover the whole field. Then you'll be certain to spot the varying deficiencies. This is a little more trouble and a little more expensive than shotgun testing, but it will pay off by saving treatment materials. It's wasted money, for instance, to put 3 tons of limestone on a portion of a field that needs only 2, or the other way around. Same holds true for other fertilizers.

Most common deficiencies will be limestone, organic matter, nitrogen, phosphorus and potassium. In some regions there will be shortages of the so-called trace or minor elements. Ask the county agent or the laboratory about the need for such treatments for your area. Simple tests for lime or calcium, phosphorus and potassium have long been available. More recently practical tests for organic matter have been worked out. And now, within the last few months, a nitrogen test has been announced from Wisconsin. It will tell a farmer how much of this plant food will be available for his crops the coming season. Then he can supply the deficiency at planting or cultivating time for row crops, or ahead of the big need for pasture or hay crops. The Wisconsin test for nitrogen is explained elsewhere in this issue.

Report of the laboratory will put your land in one of 3 classes according to the plant food found. Doctor Bray explains these classes:

1. Deficient in fertility. Less than 150 pounds of potash an acre. Low in nitrogen and organic matter, low to medium in phosphorus and a need for 2 to 5 tons of [Continued on Page 22]

Fertility Build-up and Upkeep

(Continued from Page 21)

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ground limestone. Most soils lack one or more of these plant foods and some are short of all. They must be built up before top yields can be expected.

2. About right in fertility. From 150 to 200 pounds of potash an acre, medium to high in organic matter, nitrogen and phosphorus, and needing 1 ton or less of limestone an acre. Such land will produce top yields but the outgo of phosphorus, potash, nitrogen, organic matter and lime removed by crops or lost by erosion must be balanced by input of these elements to keep the fertility balanced.

3. Long on fertility. More than 200 pounds of potash an acre, high in organic matter, nitrogen, phosphate, and needs no lime. Not many soils are in this class. But they may be cropped without fertilizers until the extra fertility is used up. Treatments will be unnecessary expense until that is done. But retest should be made from time to time to make sure fertility does not drop below the profitable level.

Follow Lab Report

Apply the kinds and amounts of plant food indicated by the laboratory report. If the quick build-up is selected, all the mineral treatments can be put on in one season. The organic matter will need to be built up by green manures, crop residues, and animal manures and will require several years. After the quick build-up, the program can go on to a maintenance basis the next year. That means applying the plant food to balance what is taken out or lost. This can be done every year or once in a rotation.

If the slower build-up is selected, apply the needed lime. That will permit growing legumes. Then spread the other treatments over 2 or more rotations. But remember that more plant foods must be added than are removed, else there will be no build-up. If you put on only what is taken out each year, yields will hold at present levels. If you put on less than is removed, yields will decline. Extra plant food must be applied until fertility is built up to make the yields you want.

Adopt Crop Rotation

Adopt a crop rotation wherever possible. Feed organic matter and nitrogen into the soil by growing legumes, returning all manures, straw and other crop residues to the land. Don't be afraid to turn under green manure crops. And don't assume that alfalfa is the magic that you need. Alfalfa is an exhaustive crop, takes high toll of phosphorus and potash, when it is sold as hay. Further, it must get plant food to make top yields. Where a complete rotation is not practical, follow a com-

parable system—crop sequence as regular fallow.

On sloping land where soil treatment, cover crops and rotation are not enough to control erosion, establish protective measures. These include terraces, diversion works, contour farming, grassed waterways, water-holding ponds, dams and gully repair. Put rough land into hay and pasture and utilize with livestock.

Later Tests Help

The soil laboratory can be of great service to you in later tests than in the first. It can tell you whether your build-up and upkeep program is doing the job. So retest from time to time at least every 6 to 8 years. That will check your fertility program, enable you to keep it in balance. When the fertility pressure is high enough for the yield goals you have set, whether in the quick or the slower build-up, you go on to the upkeep program. That means regular applications of plant food.

Don't make the mistake of assuming your land is good enough. A farm that has made somebody rich a generation ago is not necessarily a fertile farm today. The land your father farmed is not the same farm it was even though the title reads the same. To make high yields, your soil must have what it takes to make such yields. Fertility must be built up in poor soils. It must be kept up in good soils. Either way you need added plant food. Either way you need to test.

Making a crop is like putting up a building. Certain materials are needed in either case. And there must be enough in the right proportions for the size job. You can't build a 20-stanchion barn with the lumber, cement, nails and hardware for a 10-stanchion barn. Neither can you make a top yield out of the fertility for half a yield.

Get 100-Bushel Yield

To grow 100 bushels of corn, for instance, the soil must deliver 150 pounds of nitrogen, 23 pounds of phosphorus, 72 pounds of potassium, a generous amount of organic matter and 5 million pounds of water. Equivalent output of other crops are 70 bushels of oats, 33 of wheat, 32 of soybeans and 3 tons of legume hay. Acreage required for this delivery depends on what Doctor Truog calls fertility pressure. If that pressure is high, the output can be had from an acre. If the pressure is low, the output may require 2 or more acres.

Of all ingredients that go into a high yield, you as a farmer now lack control of only one—rainfall. Of course, no amount of plant food will prevent damage in severe drouth. On the other

(Continued on Page 23)

HUNGER SIGNS IN CROPS

Corn: Phosphorus hunger causes purpling of leaves on many strains of corn. On others a yellowing similar to nitrogen hunger.

Nitrogen hunger causes yellowing of leaves, beginning at tips of lower leaves and proceeding up midrib, giving a V-shaped pattern. When drouth is cause of yellowing upper leaves also are affected.

Severe potassium deficiency shows up as marginal scorch on leaves. Margins of leaves turn a brown color.

Wheat: Nitrogen hunger causes young plants to get an over-all yellowish color. Older plants yellow at tip of leaves which subsequently die.

Phosphorus hunger shows up as dark green leaves with tip ends dying.

When potassium hunger occurs tip ends of leaves become yellow and scorched along edges.

All of these conditions are difficult to observe in the field, and absolute identity may need to be made by chemical tests.

Oats and Barley: Same signs as for wheat except purplish-brown spots appear on barley leaves when there is a potassium deficiency. These spots precede marginal and tip-end firing.

hand, no amount of rainfall will make a good crop on poor land. But a soil containing plenty of plant food has a better chance of making a paying crop under moisture shortage than a poor soil. That was amply proved in this year's wheat. Fertilized fields ripened days ahead of untreated fields, made good yields despite the June drouth. They also stood up better under disease and insect attacks.

Doctor Truog reports that tired old fields in Wisconsin were made to produce like Corn Belt land by soil treatments. Drouth took hay harvest on even good land in the neighborhood. Fertility pressure, built up in poor land by plant food, made alfalfa yield 4 tons an acre in 2 cuttings, red clover 3 tons. Cost of treatment was \$35 an acre, but the output repaid the cost 2 or 3 times over. Two other fields on the same farm and under the same drouth made 34 bushels of wheat and 43 bushels of rye respectively.

You no longer need to wish for good crop yields. You can have them by testing your soil and by putting the fertility pressure up to the level required. It's a program of build-up and then of upkeep.

Demonstration Plots Are Popular

Kansas farmers like to visit demonstration plots where recommended farm practices are being observed. Last year, 409 fertilizer demonstrations were established by Kansas county agents, were visited by 5,800 farmers thru organized farm tours, and by many other farmers at their convenience.

One farmer on whose farm a fertilizer demonstration on wheat was established, stated more than 200 farmers had stopped to observe the plot during the growing season.

These demonstrations are not tests or experiments. They are actual demonstrations of recommended fertilizer practices derived from tests and experiments. In the last few years demonstrations have been based to a considerable extent on soil tests.

The plots are conducted largely on wheat, oats, corn, sorghum, alfalfa and pasture grasses. In most cases there is a comparison between no treatment and a recommended fertilizer treatment. In some cases plots also are established for comparison where one plant food nutrient is omitted.

KSC Appoints Agricultural Editor

Winner of the Arthur Capper award for the outstanding journalism graduate of Kansas State College in 1952, Stan Creek has been appointed agricultural experiment station editor at the college. He will also serve as a journalism instructor. He fills the position being vacated by Elbert Macy, who is moving to a family farm in Rooks county on a year's leave of absence from the College.

You Are Welcome

Received my *Kansas Farmer* today and I really do like to read it. Many thanks for all the free bulletins I have received.—Mrs. Emil A. Kennedy, Sr., Neosho Co.



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More Fertilizer Used in Kansas With Demand and Need Growing

By H. E. MYERS, Associate Director, Agricultural
Experimental Station, Kansas State College

USE OF COMMERCIAL FERTILIZER in Kansas has increased many fold during the last few years. Sale of all types of commercial fertilizers in the state in 1931 amounted to 3,000 tons. In 1951 the figure was 176,000 tons. Even as late as 1946, tonnage sold was only 61,000 tons. Nationally, use of commercial fertilizers has expanded greatly during the past decade. Prospects are for continued expansion in usage. Established fertilizer companies are expanding their facilities. Other groups are entering the field on the basis of the prospects for an expanding market. Best estimates of potential annual needs for fertilizers in the United States adds strength to the bullish outlook for the fertilizer industry.

The 176,000 tons used by Kansas farmers in 1951 did not satisfy the actual need of the soil and crops for commercial fertilizers in the state. Best evidence supporting this statement was the presence of symptoms of plant food deficiencies in the growing crops. Light green color and small, inadequate growth of crops in a season of abundant rainfall gave strong testimony of widespread need for additional plant food. Results of fertilizer experiments conducted in several areas of the state confirmed this observational evidence. These experiments not only proved that plant food was needed, but in most instances fertilizers of certain types gave highly profitable yield increases.

What Soil Tests Show

Additional evidence of the need for fertilizers is found in the summary of the state and county soil testing program. A total of 7,700 soil samples were tested in 1951. Results vary from county to county but certain trends are quite evident as illustrated by results from a few selected counties. There were 317 soil samples tested in the Crawford county soil testing laboratory. Of total samples tested, 93 per cent were low in phosphorus, 73 per cent low in potassium, and 92 per cent low in organic matter. For Nemaha county, results showed 89 per cent of soils tested were low in phosphorus, 18 per cent low in potassium, and 96 per cent low in organic matter. The summary for Marion county showed 83 per cent of soils low in phosphorus, 1 per cent low in potassium, and 95 per cent low in organic matter.

Soil tests indicate a widespread deficiency of soil organic matter. Available nitrogen supply for plants comes from the decomposition of the organic matter. A low organic matter content suggests several things, including the possibility that the supply of available nitrogen may limit plant growth. It also indicates that not enough organic

matter in the form of manure and crop residues has been returned to the soil. Furthermore, legumes and grass crops probably have not been used in the rotation very frequently.

Soil tests also give evidence of fairly widespread phosphorus deficiency which becomes less frequent farther west in the state.

The potassium status of Kansas soils is much more satisfactory than either phosphorus or organic matter. In Central and Western Kansas the soils are well supplied with readily-available potassium. In Southeastern Kansas the readily-available potassium in the soils tends to be considerably lower than in soils farther west. In many southeastern soils a need for potassium in the fertilizer is indicated by soil tests.

Actual fertilizer needs of Kansas are influenced by several important factors. They include: (1) plant food status of the soil, (2) crop grown, (3) weather condition, and (4) type of soil management practice used.

Must Add Plant Food

Virgin soils, when first broken from the sod, were highly productive, due to a considerable extent to the abundant supply of available plant food. The yield producing capacity of the soil declined as the available plant food supply of the soil decreased. In order to restore productivity of soil low in fertility it is necessary to add plant food to the soil. This is the principle underlying fertilizer use.

Crops vary greatly in their need for fertilizer elements. Corn has a very high nitrogen need. Legume crops have a high phosphorus and potassium need. However, lespedeza does not have as great a need for these elements as do alfalfa, sweet clover and red clover. Wheat has a high requirement for nitrogen and phosphorus. Its potassium need is not as great as that of the legumes. Weeds also show similar differences. Broom sedge is an excellent example of a weedy grass that is well adapted to soils of low fertility. The fact crops and weeds adapt themselves to varying levels of soil fertility is excellent evidence that the fertility needs of crops vary.

The variable character of Kansas weather is a major factor in determining year-to-year needs for fertilizers. In years of high rainfall a deficiency of soil fertility limits the growth of crops. In years of very low rainfall, crops growing on the same fertility-deficient soils will not show the same high response to use of fertilizer elements. In extreme cases the addition of fertilizers may even result in some decrease in yield. Variations in weather also influence the relative response of crops

(Continued on Page 25)

BOOKLETS FOR YOU

One of the best ways to learn how to use fertilizers effectively in your farm program is to read literature several commercial companies and organizations have printed and make available to you, at no cost. For a copy of one or more of these publications, write Farm Service Editor, Kansas Farmer, Topeka, Kan.

- "A Guide to Better Pastures"—Swift & Company, Chicago.
- F-2 "Increase Your Crop Production with Phillips 66 Agricultural Ammonia"—Phillips Chemical Co., Bartlesville, Okla.
- F-4 "Phillips 66 Prilled Ammonium Nitrate."
- F-6 "Fall Application of Phillips 66 Agricultural Ammonia on Small Grains and Pastures."
- F-10 "Raise More Corn, Sorghums, Cotton, Sugar Beets with Phillips 66 High Nitrogen Fertilizers."
- F-11 "Get Bigger Returns from Your Small Grains, Pasture and Grasses with Phillips 66 High Nitrogen Fertilizers."
- F-12 "Grow More and Better Fruit with Phillips 66 High Nitrogen Fertilizers."
- F-14 "Raise More Vegetables and Truck Crops with Phillips 66 High Nitrogen Fertilizers."
- F-17 "More Corn Per Acre for You with Phillips 66 Agricultural Ammonia."
- F-18 "More Cotton Per Acre for You with Phillips 66 Agricultural Ammonia."
- F-19 "More Sorghum Per Acre for You with Phillips 66 Agricultural Ammonia."
- F-20 "Phillips 66 Ammonium Sulfate Fertilizer for Greater Crop Production."
- "Better Grazing Begins with V-C Fertilizers"—Virginia-Carolina Chemical Corp., Richmond, Va.

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to a given fertility element. In some years nitrogen may give greatest response, in others it may be phosphorus, and in still other years potassium may be relatively much more important.

Soil management practices have a marked effect on fertilizer needs. Production of legumes lowers but does not eliminate the need for nitrogen fertilizer. Conservation of barnyard manure reduces but does not eliminate the need for fertilizers. In general, a good system of soil management which makes use of lime and legumes in the rotation increases the need for fertilizers. This is due, in part, to the higher production and to the removal of greater quantities of available plant food from the soil. High level of production requires large quantities of plant food. Low level of production can be had without addition of fertilizers. All the manure produced from feed grown on an acre of land and returned to that

acre will not maintain the productivity of that acre because some of the fertility elements are used by the animals. These elements are lost from the manure.

Need for fertilizers is greatest in Eastern Kansas, due both to weather and to soil conditions. However, use of irrigation water presents a condition which should stimulate use of fertilizers. Nitrogen appears to be the principal fertilizer need of irrigated soils. Some phosphorus deficiencies do exist.

Soil, weather, crops and soil management practices determine need for fertilizers. Actual use of fertilizers is influenced by other factors as well, chief of which is economic condition of the farmer. High prices of farm products stimulate use of fertilizers. A continuation of high commodity prices and favorable rainfall will cause a continuing increase in use of commercial fertilizers in Kansas.

These Long-Time Soil Fertility Studies Are Being Conducted by K-State College

By J. A. HOBBS, Associate Professor of Soils, Kansas State College

FERTILITY STUDIES being conducted by the Agronomy Department of Kansas State College are of 3 main types: (1) Trials conducted by the department on land owned or operated by Kansas State College, (2) trials conducted by county agents on farmers' fields in co-operation with Agronomy Department personnel, and (3) trials on farmers' fields which are planted, cultivated and harvested by Agronomy Department personnel and equipment.

The first type has been carried on longest. First experiments were started on the Agronomy Farm at Manhattan in 1909. Since that time, fertility treatments on this set of plots have remained essentially the same and the long-time effect of crop production and fertilizer treatments has been observed and determined.

In addition to work at the Agronomy Farm, experiments also are being conducted on several of the Branch Experiment Stations. Until recently, these fertility studies have been of relatively minor importance on each station. However, with organization of the Mound Valley Branch Experiment Station in 1949 and the inception of irrigation fertility work at Garden City, new emphasis was placed on studies of the fertilizer needs of field and forage crops in the areas served by these stations. Additional emphasis is now being placed on fertility studies at Hays.

Find What Crops Need

As well as investigations on experiment station land, considerable study is being given to the problem of soil fertility on the so-called "Experimental Fields" over the eastern and central part of the state. The experiments which are being conducted on these fields vary from area to area depending on the local problems involved. However, an attempt is being made to determine the fertilizer requirements of various crops in each area.

These fields and stations all hold at least one and usually two (spring and fall) field days to permit the general public to observe results of the experimental work. A list of the dates of these field days usually can be obtained

from the individual supervisors or from the Agronomy Department, Kansas State College, Manhattan. In addition, requests for information obtained from the trials at the various locations can be addressed to the supervisor of the experimental project in question. These studies have yielded information that can be of value to every farmer.

Visit These Fields

Here are locations of experimental areas now being operated, type of fertility work being conducted, together with name and address of the person in charge of each field:

Field, Columbus; co-operator, Mrs. W. A. Shafer; type of study, manure, lime, nitrogen, phosphorus, potash on field and forage crops; supervisor, V. H. Peterson, Humboldt.

Field, Thayer; co-operator, P. A. Robertson; type of study, manure, lime, nitrogen, phosphorus, potash on field and forage crops; supervisor, V. H. Peterson.

Field, Ottawa; co-operator, City of Ottawa; type of study, fertilizer needs of forage crops; supervisor, J. E. Braum, Richmond.

Field, Hutchinson; co-operator, KSC Land; type of study, manure, lime, nitrogen, phosphate, potash on field and forage crops; supervisor, W. A. Moore, Kingman.

Field, Kingman; co-operator, Claud Brand; type of study, manure, lime, nitrogen, phosphate, potash on field and forage crops; supervisor, W. A. Moore, Kingman.

Field, St. John; co-operator, Stafford county; type of study, fertilizer needs of crops on sandy soils; supervisor, F. E. Lowry, St. John.

Field, Belleville; co-operator, W. W. Gish; type of study, manure, lime, nitrogen, phosphate on field and forage crops; supervisor, R. F. Sloan, Belleville.

Field, Mankato; co-operator, J. K. Beachy; type of study, manure, lime, nitrogen, phosphate on field and forage crops; supervisor, R. F. Sloan.

Field, Concordia; co-operator, Ida Hansen; type of study, fertilizer needs of irrigated crops; supervisor, R. F. Sloan, Belleville.

Field, Mound Valley; co-operator, KSC Land; type of study, manure, lime, nitrogen, phosphate, potash on field and forage crops; supervisor, F. E. Davidson, Mound Valley.

Field, Garden City; co-operator, KSC Land; type of study, manure, nitrogen, phosphate and potash on irrigated land; supervisor, B. L. Grover, Garden City.

Field, Ft. Hays; co-operator, KSC Land; type of study, manure, nitrogen, phosphate; supervisor, P. L. Brown, Hays.

Field, Main Station, Manhattan; co-operator, KSC Land; type of study, lime, manure, nitrogen, phosphorus, potash; supervisor, J. A. Hobbs, Manhattan.

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IOWA CORN KING. Bob Blakely (left) of Grinnell had the highest 10-acre yield of 483 farmers entered in 1951 Master Corn Growers'

Contest: 149.99 bushels! Here he is discussing his 1953 fertilizer needs with his "Mr. N" fertilizer dealer, John Porter, Grinnell.

Corn Champion of Iowa Says— Nitrogen Helps Make Difference

100 lbs. of ammonium nitrate helps give Grinnell farmer state's top yield: 149.99 bushels per acre

The tallest corn in Iowa may not grow on the farm of young Bob Blakely of Grinnell, but at least the *highest yielding* corn grows there. That fact was recognized officially when Bob's 149.99 bushels per acre made him Corn King of Iowa for 1951.

The smiling champion explains his success this way: "After finishing third in 1950, I was determined to try harder in '51. So the next spring I did something I hadn't believed necessary before: I broadcast 100 pounds of Spencer "Mr. N" Ammonium Nitrate Fertilizer per acre and plowed it down with my manure. Then I applied 100 pounds of 5-20-10 starter fertilizer.

"That 'Mr. N' Ammonium Nitrate really gave my corn a boost. And even though '51 was a poor year for Iowa corn, our 10-acre contest plot made 149 bushels. While many good practices are necessary to produce such a yield as this, I do feel that *nitrogen helped make the difference* between my third place and championship yields."

NOTE: Current demand for Spencer Ammonium Nitrate Fertilizer exceeds supply. Your dealer may not be able to fill your order. We are operating our plants 7 days a week, 24 hours a day, and are doing our best to increase output.



Dr. E. H. Tyner, professor of soil fertility, University of Illinois, is shown in front of a Kjeldahl apparatus used to determine total nitrogen. "The introduction of high-yielding hybrid corn," says Dr. Tyner, "has hastened the depletion of soil nitrogen. If we are to continue planting such varieties, we must maintain higher soil nitrogen balances than appear possible with legumes alone. Since nitrogen cannot be stockpiled, commercial nitrogen should be applied each year."

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DIET FOR A WELL-FED WHEAT CROP

Treatments to balance soil plant food show what it takes to make a tired old field shell out a profitable yield

HARVEST was maybe 2 or 3 weeks away. Wheat was yellowing under a hot June sun and a high south wind. But water was going out of the ground at a rapid rate. Dust eddied and swirled behind vehicles on country roads; swept off to northward as tractors tilled the fields.

Threat of drouth in the air. Memories of the "dirty thirties" came back as farmers anxiously scanned the skies. It was the kind of weather that tests the menu a man dishes up for his crop.

Good weather for a crop in hard dough. Not so good for one still in soft dough, tho. Could shrivel the kernels and cut yields.

In Morris county there were both kinds. A few as gold as they'd ever be. More of pale yellow cast with green. What was the difference?

Said Joe M. Goodwin, "You better go out to Wilfred Elliott's. He's got a good show. It'll explain the difference."

Joe is county agent, a sound, experienced veteran of the Extension Service. If he said the demonstration was good it would be good. So . . . off to the Elliott place northwest of White City.

There on a level place Mr. Elliott had laid out some test plots last fall and given them various treatments to see what the land needed. Now he had the answer. The show was good, as Joe had said. The range was all the way from a thick stand, hipbone high to a scrawny stand a jackrabbit couldn't hide in and barely knee-high. Color ran from sickly green to a bright yellow almost ready for the combine.

Signs on the plot stakes gave the treatments. The late thin wheat had no treatment. It would hardly be worth cutting, even if drouth didn't shrivel the grain. The thick, tall wheat had been nourished by 150 pounds an acre of 45 per cent phosphate and 210 pounds of 33 1/3 per cent ammonium nitrate an acre at seeding time.

Crops men who attended a fertilizer tour a few days before figured the treatment for \$14 an acre and that the yield would be 35 bushels. Not only did the fertilizer make a difference of 25 or more bushels an acre, but it hastened maturity so the crop was ripened ahead of drouth. The untreated wheat was

(Continued on Page 27)



MR. ELLIOTT holds a single plant from each of 2 plots. Left, untreated; right, fertilized.



FIFTH CROP in succession on this land. Fertility about gone. Wheat barely knee-high, thin stand, scrawny heads and still green. No treatment here and yield hardly worth cutting.



FIFTH CROP here, too. But look what 87.5 pounds phosphorus and 79.3 pounds nitrogen an acre did. Wheat hipbone-high, thick stand, big heads and nearly ready for combine.

ill in danger, even if it had been a profitable yield.

Mr. Elliott's plots were laid out on a quarter section and this is the fifth successive wheat crop in succession. Six years ago kafir was grown.

Anybody who saw this demonstration could tell at a glance what it takes to make a tired old field shell out a profitable yield—a good dose of phosphorus and nitrogen.

And that was proved again by the plot in the series, which adjoins a sweet clover field on the south. This plot was given 250 pounds an acre of 20-0. Half of it was inadvertently plowed over on to the sweet clover land which had been treated with 100 pounds an acre of 45 per cent phosphate.

Thus the north half of this plot had nitrogen at the rate of 25 pounds and phosphorus at 50 pounds. The south half had the same treatment plus nitrogen supplied by sweet clover which had been plowed down last summer. The difference in added plant food showed up in thicker stand, taller straw and bigger heads.

On his land, Mr. Elliott is following a different system of soil building. He bought the 480 acres 11 years ago. It had been rented and abused. "It took several years to find out what the

land needed," he explained. "But since I began spreading fertilizer it has paid me big."

On the 153 acres of cropland (the rest is bluestem pasture) Mr. Elliott is using alfalfa as the rotation legume, and since 1943 has kept about a third of the land seeded. As a field needs plowing, he seeds another to maintain the proportion. Tests of the soil show lime is being exhausted so recent seedings have required treatment. About 50 acres already have been limed and his schedule calls for applications on the remaining cropland the next 2 years. A hundred acres have been terraced and the rest will be protected as soon as a new waterway becomes established.

Two long terraces have been built on the rented farm and 20 acres have been limed. On that place, which adjoins his, sweet clover is the fertility building legume. "I've learned it improves the soil tilth more and gives results quicker than alfalfa," said Mr. Elliott.

Well, that's what other farmers have learned, too. For a quick build-up and quick results from poor land, grow sweet clover and supplement its plowed-down nitrogen and organic matter with fertilizers. It's the best way to make an abused farm pay.

Kansas Fertilizer Law Protects Farmer

By JOHN L. MONAGHAN, Director Control Division
Kansas State Board of Agriculture

THE KANSAS FERTILIZER LAW, like others administered by the Control Division of the State Board of Agriculture, may be termed a "truthful label" statute. Its provisions require manufacturers to advise the prospective purchaser fully of the contents of the package. The act has the dual purpose of protecting the farmer against inferior products and the legitimate manufacturer against unscrupulous competition.

Originally enacted in 1903, the law placed the administration under jurisdiction of the secretary of the Kansas State Board of Agriculture. The act was amended by the legislature of 1917, principally to transfer duties to the director of the Agricultural Experiment Station, Kansas State College. In 1928, the law again was assigned as a responsibility of the Board of Agriculture by the legislature, and the Board's Control Division has administered provisions of the statute ever since. The law was amended the last time in 1949, when the most important change was elimination of inspection fee tag and stamp. Use of automatic closing bags, production methods, and savings in time and labor were factors which influenced the amendment. Manufacturers are now permitted to report tonnage and pay the fee thereon each 6 months in lieu of attaching tags or stamps.

One of the most important features of the law is the requirement that each package or lot be labeled to show the minimum percentages of nitrogen, available phosphoric acid and potash as well as any and all other plant food elements or compounds contributing to the value of the commercial fertilizer. By the simple process of reading the label the prospective purchaser can evaluate the comparative value of the

products and select that which is most specific for his needs. Since the advent of expanded facilities of soil analysis, this feature is particularly significant.

A farmer no longer is handicapped by guesswork in determining the kind and quantity of fertilizer required by a given crop on a specific area. He can have his soil samples analyzed and, by consulting with crop experts available either locally or at Kansas State College, he can purchase the grade and quantity of commercial fertilizer necessary to assure a maximum crop.

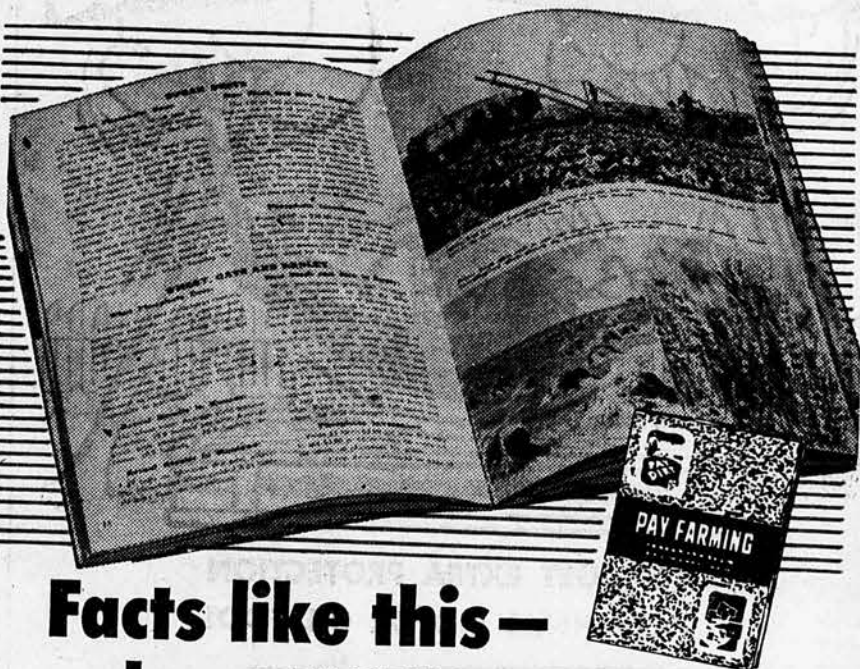
The division attempts to collect sufficient samples of Fall and Spring production of commercial fertilizers which will represent a cross-section of the materials sold in the state. Results of analysis are encouraging in the main. Most samples indicate farmers are receiving even more plant food than guaranteed by manufacturers. A comparatively small percentage of the samples is found to be deficient in one or more elements. Usually, the reason for such deficiencies is maladjustment of the processing machinery. When the matter is called to the attention of the manufacturer, corrections in his operations are made, and subsequent samples we collect and analyze will verify his guarantee.

Sampled by Field Man

For example, this year a shipment of mixed fertilizer being offered for sale to farmers was sampled by one of the field men. The available phosphoric acid content was guaranteed to be not less than 32 per cent. Chemical analysis revealed the valuable phosphoric acid percentage was only 25.38, a deficiency of nearly 25 per cent. The matter was reported to the local county attorney and seizure of the remaining bags resulted. The company paid a fine and costs before being permitted to return the lot for reprocessing.

Reports received by this office from manufacturers indicate a tremendous increase in commercial fertilizer usage in the last 20 years. In 1933 only 1,831 tons were sold in the state. All indications point to an approximate figure of 200,000 tons in 1952. It appears there is a definite trend to increase usage of plant food by our Kansas planters. This trend will probably increase as long as prices are high and weather conditions favorable. This department will endeavor to keep pace with this progress and help insure Kansas farmers of receiving only those products which contain the plant food declared by manufacturers.

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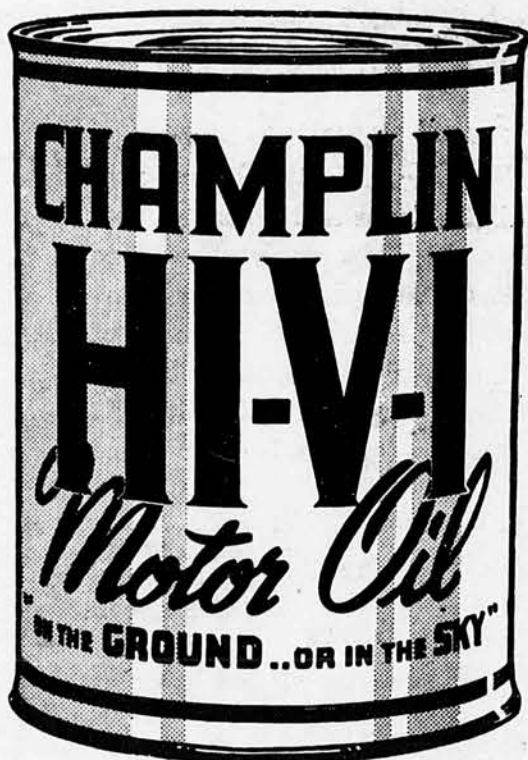
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HIGH VISCOSITY INDEX

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The Old Fellow gives his "rule of thumb." Different crops need different menus, just like we do...

The ABC's of FERTILIZER

By JAMES H. GILLIE

This article is reprinted in this issue by special request. Perhaps you will wish to save it for future reference.

AN EXPLANATION of how fertilizer works to improve crop yields and crop quality can be extremely complicated. This is true because there are so many grades used on so many crops on so many types of soils, under so many conditions of rainfall and climate. These variances make us scratch our heads and wonder whether there isn't some "rule of thumb" to follow.

There is no simple rule. Soil tests, hunger signs in crops, past experience, and college experiments all are needed to give best indications of what to use, when, how and where.

But there is one fellow who comes as close to having a "rule of thumb" as you'll find. He's an elderly fellow I met in a neighboring state. He made himself known after a meeting where several speakers tried to explain "all about fertilizer" to a large group of interested farmers. He approached the speakers following the meeting and said, "Good speeches, but you guys are too durned technical."

"What do you mean?"

"Just that. You guys get all wrapped up in your discussions of nitrates, sulphates, citrate soluble, and all that double-talk—and don't tell us farmers what to use—so we know what you're talking about." The old fellow looked like he was wound up and rarin' to talk.

How to Think of It

One of the speakers, admitting the old fellow had a point, said "Do you know any simple way you could explain how to use fertilizer?"

By his manner you could tell he was frankly a little skeptical.

"Well, son, as I see it, you got to think of fertilizer as plant food. It's not a lot of complicated chemical—it's just plain food for our soils and crops.

"We know most of our food comes from the soil thru plants and livestock. So it seems to me if we are going to get any good out of the food we eat, there must be *real* food in these plants in the first place. This food, the plants must get from the ground. Now, if the ground is poor and has no food in it



Dollars to donuts you'll make more money using fertilizer.

then we can't get good food either. Follow me?"

"You mean we are what we eat! Yes, go ahead."

"Well, wouldn't that mean the soil and crops must have food just as we do? Just as we eat meat, potatoes and vegetables as our main courses, our crops have to have nitrogen, phosphate and potash. We know we eat meat because it's high in protein and it's the same reason plants need nitrogen. It's a protein producer. We eat potatoes to make us big. Just as plants need phosphate to build a big root system and make them grow in a hurry. We eat vegetables to help our muscle tone, to build our resistance to disease just as plants need potash to fill out the grain, put stiffness in the straw, and increase disease resistance."

Just Like Menus

"You figure then the various grades of fertilizer on the tag are plant menus just like the menus we order from?"

"Now you're getting it," continued the old fellow. "Different crops need different menus—just as we do. A grade like 5-10-5 might be like us eating beef, mashed potatoes and carrots. Or 10-20-0 would be like us eating steak and French fries with no vegetables. See?"

Without waiting, he kept on: "Now there are other things we know we have to eat for a balanced diet—like salad and bread and fruit. Well, the crops are the same way—they need calcium, sulfur, magnesium and many of the trace elements. They don't show on the tag any more than these other foods show on the menu you and I order from, but they are needed just as we need them."

"Now wait a minute, sir," the speaker said. "Does this theory of yours take into account the amount of plant food already available in the soil—or the amounts of organic matter needed? You'll admit that is much more important than just adding plant food to grow better crops."

"Sure my theory takes this into account. A farmer's got to have his soil tested to find out what plant food is already in his soil—just as a doctor would tell a fellow not to eat more." (Continued on Page 29)

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GODDESSES OF AGRICULTURE

Since ancient times when there were goddesses in mythology, women's place in development of agriculture has been recognized. The system of beliefs that gods and goddesses ruled over human life had an intense influence. The farmer, when he sowed his seed, firmly believed the diety he worshiped supplied necessary rains, and saw to it that proper growth occurred.

Most countries commemorated females as dieties to guide agricultural progress. These were the chief goddesses: Ceres, goddess of agriculture and civilization; Rhea, goddess of the earth and mother of Ceres; Thallo, goddess of blossoming; Chloris, buds and flowers; Pomona, garden fruits, orchards and fruit trees; Bubona, goddess of herdsmen; Copia, plenty; Hippona, horses; Hostilina, growing corn; Maia, growth and plains; Mellona, bees; Matura, ripening corn; Pales, flocks and shepherds.

potatoes if he was already too heavy. The organic matter, of course, must already be in the soil for the plant food to do a good job. We assume that just like we know that our own stomach has to be in good condition to use the food we put into it."

"How about the lime most soils should have?" asked the speaker.

The old gentleman's eyes lit up as he closed the trap. "Would you try to eat with an acid stomach?" He grinned.

"Now about application of this plant food"—the old fellow was still pressing his point. "Again it's just like our own eating. We don't get much good out of our food if we don't swallow it. You've got to put the fertilizer into the ground rather than just on top to get the most good from it."

"How about time of application?" "Well, when do we eat? Do we eat today, then wait a week before we eat again? No, we eat regularly. Some crops can't be fed after they develop their root system, but the soil can be fed most anytime of year."

The speaker added, "And if somebody asks about rainfall being needed to make these various fertilizers work, you tell him it's like us drinking water or milk or some other beverage. Is that it?"

"Sure, NOW YOU've got the idea."

Didn't Want to Get Trapped

The speaker was fishing for some good question to blow up the old fellow's theory, but he didn't want to get trapped again. With the thought of drawing the old fellow into a misstep he asked half humorously, "How does your theory hold up when somebody wants to know about acid phosphate killing earthworms?"

"Ah, we all know that worms are like any other animal. They go where there's food. So if the soil is fertile, whether made that way by acid fertilizers or not, that's where you'll find earthworms"—the old gentleman hesitated—he caught the twinkle in the agronomist's eyes—"Doggone it, there you go again trying to get technical—tell the people your plant food has enough calcium in it to offset the worm's stomach acidity, too, if you want to."

All of us joined in the laughter. Here was a "rule of thumb" for fertilizer usage. It certainly isn't technical, it's as simple as the ABC's.

FERTILIZER "FIRSTS"

In 1563, Palissy recommended use of marl, lime and ashes to improve crops.

First record of chemical fertilizers was in 1669 when Digby reported increased crop yields thru use of saltpeter.

In 1824, first shipment of Peruvian guano arrived in United States, at Baltimore, Md.

In about 1830, recovery of nitrate of soda from deposits in Chile was begun. The same year nitrate was first imported from Chile into United States, at Norfolk, Va.

Ground bone was first used as a fertilizer in the United States in 1825.

First real scientific basis of modern practice of fertilizer use dates back to the great chemist Justus von Liebig, in 1840, when he treated bones with sulphuric acid, and in 1845, when he demonstrated value of potash.

In 1840, Sir John Lawes began fertilizer experiments at Rothamsted, England, and studies have been continuous since. Believed to be oldest fertilizer experiments in world.

By 1840, in Peru, the value of guano became well recognized as a fertilizer.

In 1842, first superphosphate patents were taken out and a year or two later superphosphates began to appear on the market.

First patent record for manufacturing a compounded fertilizer is believed to be one issued March 27, 1849, to

Phillip and William Chappell, at Baltimore, Md. In this early patent are combined the superphosphate process, use of liquid ammonia, use of potash and even inclusion of secondary and probably minor elements.

Baltimore, Md., had first mixed fertilizer factory, in 1850, became largest center of superphosphate manufacture in world.

First record of analysis of fertilizer by state officials was in 1851.

Massachusetts had the first state fertilizer control law, in 1856.

In 1860 potash salts were added to the list of fertilizer materials on the market.

Potash was first imported into the United States in 1869-70.

First fertilizer experiment at a U. S. agricultural experiment station was begun in 1872 at State College, Pa.

In 1879 the fertilizing value of basic slag was discovered.

Concentrated superphosphate was first produced in the United States at Baltimore, Md., in 1890-91.

In 1893, by-product ammonium sulfate was produced in the United States.

The American Soil Survey was begun in 1899 by the U. S. Department of Agriculture.

Soil maps have been published by the U. S. Department of Agriculture since 1900.

First USDA work on fertilizer resources, production, technology and utilization was initiated in 1911.

Potash was first produced commercially in 1915, at Searles Lake, Calif.

First commercial production of synthetic nitrogen in the United States was in 1921.

The National Fertilizer Association was established in 1925.

In 1943 the American Cyanamid Company reported 2 of their scientists had developed a new method of using radioactive materials to determine amount of potassium in fertilizers and other mixtures.

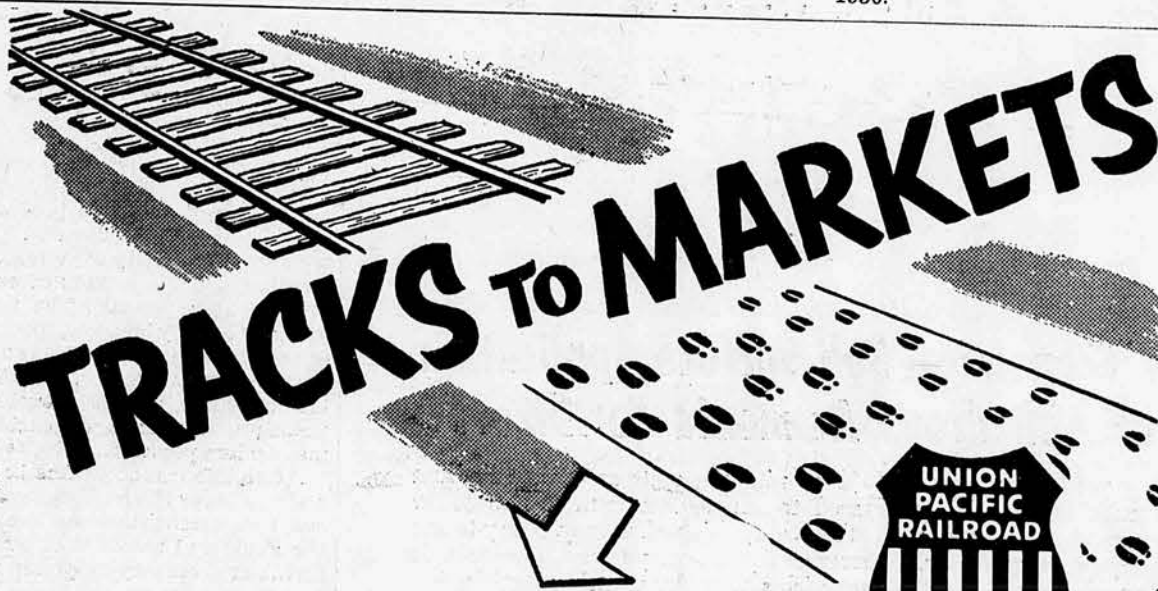
First use of anhydrous ammonia direct in mixed fertilizers was in 1928. Then in 1943 came first commercial use of the material direct in the soil (nitrojection). In 1932 came first commercial use of anhydrous ammonia in irrigation (nitrogation). First year of general use of ammonium nitrate in U. S. fertilizers was in 1942.



First year U. S. fertilizer consumption passed the 10,000,000-ton mark was in 1943. In 1949 total use was 16,500,000 tons! In 1950, total was 17,938,988 tons! In 1951, total was 18,665,748 tons!

In 1947, the USDA started work involving phosphorus deficiencies, at Fort Collins, Colo., for western states, and at Ames, Iowa, for north central states.

Centennial of first manufacture of mixed fertilizers in the U. S. was in 1950.



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To Feed Lots

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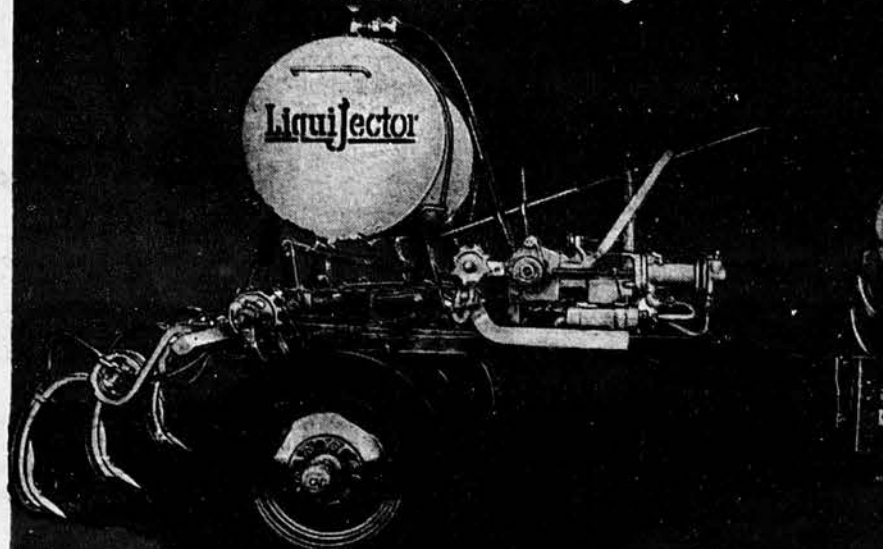
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COSTS 25-50% LESS per nitrogen unit than any other form of nitrogen fertilizer!

FASTER CROP STARTS with pre-planting fertilization. Young plants prefer the ammonia type of nitrogen.

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FERTILIZE ANY TIME — Anhydrous Ammonia can be used weeks before planting time, or in the fall for spring crops.

NO BULKY STORAGE — 1,000 gallon storage tank is equivalent to 21,000 lbs. sodium nitrate, 10,500 lbs. of ammonium nitrate in nitrogen units. No heavy handling of bags!

FAST APPLICATION — one man with tractor and Liquijector can fertilize 25-50 acres a day, far more than two men applying dry fertilizer.

USE YOUR OWN CARRIER — if you have a Dempster Series No. 100 Carrier, mount the Liquijector on it, saving cost of new carrier.

Write For Complete Folder

DEMPSTER
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Don't Guess When Using Fertilizer Test Your Soil and Be Sure

ARE YOU GUESSING how much fertilizer to apply for your crops? If you are using this hit-and-miss method you probably are not getting the results from your fertilizer you would like.

How much confidence would you have in your family physician if he "guessed" on the amount of ingredients to include in the prescription for a member of your family? Fortunately, for us, doctors do not guess or estimate. They carefully analyze the situation, make recommendations accordingly, figure scientifically the correct amount of the prescription and then prescribe the proper method and time of application.

This illustration is used because some of us do guess when using fertilizer. Others, however, use a procedure similar to the doctor's method of figuring the prescription.

Soils used to produce crops need the additional applications of plant food contained in commercial fertilizer. Soils cropped over a long time and depleted of the necessary plant food elements can be considered "sick soils." Sick soils produce sick crops and sick crops in turn produce sick livestock and people.

Try a Soil Test

How then can the proper prescription be made for our soils to get the most efficient and economical use of our fertilizers which are essential in producing good crops? You have a ready answer to that problem, "get a soil test." A soil test can show many things. The test is a measuring device to give you a good inventory of the productive capacity of your soil. The test will show the degree of acidity of your soil. It will also indicate the pounds of exchangeable calcium present. The test rates your soil as very low, low, medium, high or very high for such things as per cent of stable organic matter, pounds of soluble phosphate, pounds of exchangeable potash and pounds of exchangeable magnesium per acre.

After this inventory has been taken and you know the fertility level of your soil, recommendations can be made for the kinds and amounts of commercial fertilizer necessary for you to apply for

any specific crop. You can then fertilize the soil and be sure to have all the plant food elements needed by the crop for best growth, yield and feeding quality.

A soil test may be made by getting representative sample of soil from the field and sending the sample to the testing laboratory for a complete chemical analysis. These soil testing laboratories are generally located in the county Extension offices under the supervision of the local county agent, counties without facilities of a soil testing laboratory, the samples may be sent to the State Agricultural College for the soil test.

How to Take Sample

The soil test will be of little value to you if the soil sample has not been taken properly. Composite samples should be taken to represent the surface 7 inches of each different kind of soil in the field. When taking soil samples use auger, soil sampling tube or spade.

With an auger or soil sampling tube make a boring about 7 inches deep and pull up with soil or—with a spade—a V-shaped hole about 7 inches deep and cut a thin slice from the side of the hole. A composite sample represents a mixture of 10 or more auger, tube or spade samplings from each area in the field which is a different soil, in color, elevation, shape, productivity, or what the cropping or soil treatment has been different. Use a clean bucket for mixing soil samples and place about a cup of this mixture in a clean paper sack (about 1 pound size) for sending to the laboratory. Each sample sent in to the laboratory should carry as much information as possible such as (1) your name and address, (2) county, (3) farm number and location, (4) past cropping and rotation plans.

This information together with the soil test report takes the guesswork out of using fertilizers. The correct prescription can be made and you have taken the first and important step toward starting the soil on your farm on the road to recovery.

When Should I Apply Fertilizer?

By PERRY ONSTAT

THE CREDIT MANAGER of a large business recently had the unpleasant task of calling up a customer and notifying him a check he had written had been returned from the bank marked "Insufficient Funds." He had written a check on his bank, but his balance was not sufficient to cover the necessary amount of that check.

The same situation might apply to our soil balance. The result of a check written on a low bank balance is brought to our immediate attention. However, we are likely to overlook the "indicators" that we are writing checks on our soil bank which has a low plant food balance. Our soils have a limited capacity, and if we have been following an intensive cropping program we are in a strict sense writing checks on our soil balance. We expect those checks to be honored as returns or yields from that crop. We know in order to produce a crop of a specific yield, a large number of different plant foods or nutrients are required. Nitrogen, phosphate and potash are the 3 main plant foods utilized by the plant from the soil which are necessary for its growth and development. Other nutrients also necessary also required in smaller amounts are calcium, magnesium, sulfur and a number of known "trace elements."

Plants Must Have Food

These elements or plant foods must be present and in sufficient amounts if we are to get the type of yields from our crop that will give us an economical return. In producing that yield the

plant is writing checks, so to speak, the balance of plant foods in the soil. If that balance is low, then the yield or return from the crop will be correspondingly low, and the plant and in turn will suffer. We get in trouble like the fellow writing the bad check.

How can we tell whether our soil balance is low? One method might be to follow a procedure similar to that of finding the condition of your bank balance. Ask for a statement. A statement of the condition of your soil balance would be a soil test. The soil test report will show the balance of plant foods in the soil at the time the test was taken. With this information available it is then possible to determine the fertility level of our soil. The agricultural experiment stations can tell us how much plant food is removed from the soil in producing a specific yield; therefore, we can figure how much plant food we must put back into our soil bank in the form of a complete mixture of fertilizer in order to be able to write checks in the form of crop yields.

Sign of Low Fertility

Other "indicators" we might use to learn our soil balance condition might be hunger signs, low yields, weak and diseased plants, all of which are "statements" but received too late to do good for that year's crop. They only help us to realize our immediate position and to take steps accordingly for the next year's crop.

The question then comes up, "What should I do?" (Continued on Page 31)

Should I apply the fertilizer?" This might be answered with a question: "When do you put money into the bank?" Most people put money into the bank when available and convenient.

Just as most people try to build up a savings account which will become available when they need it most—so many farmers attempt to constantly build up the fertility levels of their soils in order to maintain their soil balance. This is accomplished by growing legume crops and plowing these under with large amounts of commercial fertilizers rich in nitrogen, phosphate, potash, calcium, magnesium and sulfur, all essential plant foods.

By putting into operation a sound banking program you are going to be in a more secure position to realize a greater return from your investment. The more deposits you make to your soil bank the greater will be the return. The interest from these deposits will come to you in the form of higher yields and better crops, thus enabling you to make larger deposits in your financial bank as well as your soil bank.

By getting the greater returns from increased yield you will be better able to make repayments on your mortgage. Deposits you will have made to your soil bank will have the effect of getting a higher appraisal value of your farm. Therefore it is important to the success of your banking program to make substantial deposits to your soil bank.

Soil experts tell us applications of fertilizer may be applied anytime the ground can be worked. More and more farmers are following this procedure, thus enabling them to buy their fertilizer when it is most available from the fertilizer manufacturer, and applying it to their fields at times most convenient to their work schedules. This practice, they find, saves a lot of time during rush planting season as it eliminates running after fertilizer, getting at the fertilizer spreaders and using

valuable time making fertilizer applications which very well could have been done considerable time in advance of the planting season.

Let's review steps to follow in developing and maintaining a sound soil bank balance:

1. *Get a statement of present condition of account:* Have a soil test made of the fertility condition of soil on farm.
 2. *Make a budget:* Determine the next crops to be grown and amounts of specific plant food which will be required for those crops in addition to what the soil test shows.
 3. *Make large initial deposits:* This will give you reserve balance for operations. Apply fertilizer in amounts which will be needed as indicated by the soil test and the planned cropping system to be followed. (For large applications [deposits] plow down 1/4 of the fertilizer and use the remainder at planting time.)
 4. *Establish checking account:* Prepare a good seedbed and plant an adapted variety with application of fertilizer at planting time.
 5. *Use bank insurance:* Use good management practices such as good cultivation, weed and insect control measures.
 6. *Set up savings account:* Make additional applications of fertilizer as necessary which will be held in reserve for later use.
 7. *Collect interest on investment:* Harvest a crop which will be the result of the best efforts available to produce under the season's weather conditions.
 8. *Summarize records and adjust banking program to meet needs:* Study results obtained and plan future program on the basis of the most efficient and economical use of fertilizer.
- By following these steps you may strengthen your soil bank balance, receive bigger and better yields which will in turn help to establish a more sound financial bank balance.



Help S-P-R-E-A-D the NITROGEN!

Although Phillips is working hard to produce as much nitrogen fertilizer as possible, supplies are still short of actual needs. Available nitrogen must be used wisely to insure best results in terms of crop yield and soil buildup. Make the most of the nitrogen you get by applying proper amounts at the proper time. Use lime, phosphate and potash where soil tests indicate the need. Phillips Chemical Company produces three high nitrogen fertilizers for direct agricultural use . . . Agricultural Ammonia (82% N), Ammonium Nitrate (33% N), and Ammonium Sulfate (21% N). Plan your fertilizer needs well in advance and place your orders early with your local fertilizer supplier.

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Methods of Fertilizer Application

Following information is condensed from Kansas State College Circular 264, "Fertilizer Recommendations for Kansas."

Small Grains

DRILLING superphosphate in row with seed, concentrates fertilizer in soil, as proved most effective method of application for all small grains.

Rock phosphate must be applied in large quantities, so should be broadcast on land rather than drilled with seed or otherwise placed in restricted ones.

Nitrogen in some cases may be applied successfully by broadcasting ahead of planting. A broadcast application on old wheat stubble aids decomposition of straw, but larger quantities are needed than when put with seed or as top-dressing on growing crop.

Even when planning a top-dressing nitrogen for small grains during growing period, it is well to supply perhaps one half of nitrogen at seeding time to aid early growth, especially winter pasturing of crop is planned. Top-dressing should be done between December and March, before too much spring growth occurs. The ordinary fertilizer attachment on grain drill is satisfactory implement for top-dressing. Ordinarily it should be set as shallow

as possible to operate drill, to prevent cereal or grass plants from being torn from soil. There also are satisfactory broadcast applicators on the market.

Legumes

Row placement of superphosphates for alfalfa, sweet clover, and red clover is an excellent practice, but drills for small seeded legumes may not have fertilizer attachments. If not, recommended method is to drill fertilizer deep, ahead of seeding, packing soil with a cultipacker, then drilling seed.

Top-dressing of old stands of alfalfa with superphosphate should be accomplished in early spring prior to much new growth. Ordinarily these top-dressings should be made by means of a fertilizer attachment on the grain drill or with a broadcast applicator. If drill is used set disks to cut slightly into soil, as this will aid in putting phosphate at a zone where it is more available than entirely on the surface. However, drill should not be set so deep as to damage plants.

Row Crops

Fertilizer applied at time of planting row crops should, when possible, be placed in bands beside seed rather than in direct contact with seed, as there is danger of damage to germination.

There also is thought to be an additional advantage if fertilizer bands are placed deeper than seed, as moisture is more likely to be available at lower level during dry periods.

Side-dressings of nitrogen fertilizer on corn or sorghum should be made at second cultivation, or when plants are from 12 to 18 inches tall. It should be placed in band beside row and below surface of soil. Machinery used should be so regulated as not to disturb roots of growing plants. It makes little difference whether fertilizer is placed on one or both sides of row.



"Pop's skin must be too tight. When he shuts his eyes, his mouth opens."

Use Nitrogen for More Profitable Small Grain Harvests

A bushel of wheat removes about a pound and a quarter of nitrogen from the soil. That nitrogen must be replaced to maintain high yields of succeeding crops. Nitrogen will make it possible for wheat and other small grains to produce and support more and bigger heads per plant, more plants per acre. This means more bushels of better quality grain . . . more net profit per acre. Apply nitrogen before or at seeding or one-half before seeding, the remainder in the early winter or early spring.

FOR HIGHER YIELDS USE PHILLIPS 66 HIGH NITROGEN FERTILIZERS!

Phillips 66 Ammonium Sulfate and Prilled Ammonium Nitrate are free-flowing, easy to spread or drill. Phillips also produces Agricultural Ammonia (82% Nitrogen) for direct or irrigation application.



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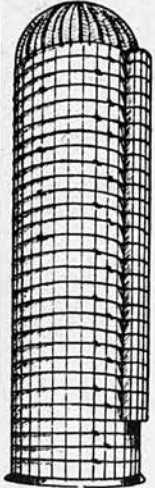
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SPECIFICATIONS
Width of Cut—36 in. Bearings—Timken. Power—3 H.P. Briggs & Stratton. Frame—Fabricated Electric Welded Steel. Differential—Auto Type Drives From Both Wheels. Drive—Standard Auto V-Belts. Gears—Machine Cut. Tires—400x8 Pneumatic. Self Propelled.

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Now That You Have Electricity

WINDOW FANS are a long-range investment in this country. No other type of fan is quickly adaptable to so many situations, their very design being created so a fan may fit any of several window sizes.

Window fans primarily are of the exhaust variety, altho some models may be reversed to provide circulation. You know well how to use a fan as an air circulator. There may be a few bits of information on window fans you don't know.

For instance, best location for a window fan is not necessarily in the room to be cooled. Furthermore, fan should not blow against the wind. And to operate at its maximum efficiency, total area of other window openings used as air inlets should be about 1 1/2 times the area of the fan blade. If screens are on the inlet windows, the area should be double that of the fan blades. Furthermore, fly screening in the path of the air being exhausted reduces efficiency of the fan by as much as 50 per cent.

Folks we know bought a small window fan and installed it in the upper portion of the kitchen window. Thus it served double and year-around duty, acting as a kitchen ventilator when odors and vapors of cooking became too thick, and as a cooling unit at night. The fact it is so easy removed and installed makes cleaning a simple task.

Here are some thoughts for you who have refrigerators and freezers. Put your damp ironing in the freezer if you can't get to it right away. That way it won't mildew. Your postage stamps can go in the same place to keep them from sticking together. A person could use 3 or 4 refrigerators, one for food, the others for flowers, cosmetics or the week's wash.

You have heard of radio-telephones in automobiles, now we read of radio-telephone for farms. It is a party line affair with lines from the 10 homes terminating in an automatic radio station which is both transmitter and receiver. A duplicate unit sends and receives at the company headquarters, and we can see where this might bring good service to farms scattered widely or located in areas which make pole-line construction hazardous.

Heard but not seen—yet: a unit now being manufactured in Michigan that consists of a laboratory and electric hot-water heater built as a single cabinet for quick installation.

Another idea was brought to our attention recently. It involved using the fuel pump from an automobile to fill small livestock waterers or for other purposes where a small stream of liquid was needed. A power tool or small electric motor provided the power and a cam with a 1/16-inch offset provided the pumping stroke.

Have slicing problems bothered you in your kitchen. What we mean to say



"I'm looking for the salt, that's what I'm doing!"

is, could you use an electric slicer just like the butcher uses? There are designs on the market now that fit the home kitchen and greatly ease the problem of cutting meats, cheese and other food items in a manner so many persons like.

Newest in heating tape has adapted a paint-like material to a film-type tape which can be wrapped around a water pipe or other area which is to be heated. The paint conducts electricity and at the same time produces heat, as much as 300 degrees Fahrenheit. Available in 10-foot lengths, it will operate on 110-volt circuits.

Many manufacturers now are printing electric circuits on plastic panels. Your radio or television set, for example, may have a printed circuit instead of the maze of wires that have been common. Perhaps someday it may come to the place that in order to put in a new electric outlet, all we need is some paint and a brush plus a steady hand that can put a strip on a wall.

Now let's talk about heating. An item tells us of an electric room heater that is portable and thermostatically controlled. Furthermore, the case never becomes hot so as to burn a child or singe furniture. Also, with this feature, the thermostat reflects the true room condition instead of the temperature of the case.

If your family goes for fresh juices of a morning, why not speed up the breakfast process by having an electric juicer? The machine scoops out juice and pulp in no time, and strains out the bulk before spouting the juice into a waiting glass.

What about mixing juices? These electric blenders gobble up any variety of ingredients you might dream up and mix them in a matter of seconds. There are numerous recipes that utilize vegetables and fruits as well as milk and sirups to create new flavors.

We want to urge again the utmost care in installation and handling of electric wiring and appliances. This utility is no different than any other piece of farm equipment. A car, truck or tractor operated without caution is dangerous. Properly handled all these are useful tools. Electricity is just such a tool. Installed with the recommended safeguards and used as directed it will perform wonders with perfect safety. Neglected, it can hurt, just as a car or truck with faulty brakes or insufficient maintenance can be costly.

We are warned this is the time to give electric motors the once over. A summer's accumulation of dust and lint should be blown out, such oiling as is recommended should be completed and attention should be given to brushes and bearings. An air compressor, according to experts, will help clean out the windings, or a tank-type cleaner or time pump will serve. Dust and dirt are the big causes of motor trouble, since they clog air passages and thus interfere with proper cooling.

Speaking of tank-type cleaners, don't forget there are attachments that will permit you to spray insecticide around the house, the barn, poultry or dairy house.

Mothproof Bags

As an extra precaution when wrapping woollens in paper bags it is well to seal them airtight, as moths can get thru small openings to wool materials. A good protection against both moths and moisture is to put transparent tape over all openings and seams. Then bags should be hung in a cool place, if possible.—U. M.

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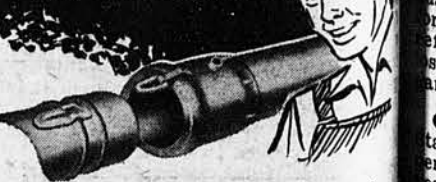
Like all farm equipment, silos are subject to severe use, therefore need proper maintenance. And that's why a LOOK INSIDE is so important . . . it's the ONLY way to know. If the inside feels soft when you scratch it with a knife . . . or if particles of aggregate are loose, it's time for 4-Y-1 Silo Saver! Easy to apply with brush or spray it penetrates into every crack and crevice, restores silo walls to original hardness . . . prevents acid damage . . . protects the future of your silo. Write for literature.



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NEW NITROGEN TEST DISCOVERED

Wisconsin method measures amount of plant food crops can get from soil, and tells how much fertilizer must be added for a given yield

A NEW TEST for soil nitrogen has been found. It is simple, easy to apply and as reliable as the older tests for lime, phosphorus and potassium.

This discovery means you no longer need to guess about the amount of nitrogen fertilizer needed to make land produce a profitable yield. You can set a bushel or a tonnage goal and be pretty sure of making it.

The new test, worked out at the University of Wisconsin, is designed to find how much nitrogen a soil can supply for crops the coming season. After that is known, the amount that must be added to make a high yield can be figured.

The test starts with soil sampling. That is done in the same way and under the same rules as for lime, phosphorus and potassium. But the laboratory uses a different set of chemicals and it must follow a different method of calculating to arrive at recommended applications. Remember this test does not tell the total nitrogen content of the soil—only that which can be delivered to the next crop.

Here's How Method Works

Here is how the method works, as outlined by Dr. Emil Truog, head of the Wisconsin department of soils: Suppose the laboratory finds 200 pounds of nitrogen an acre will be in form crops can use the coming season. The curing starts from there. Even though that amount of nitrogen is usable by plants, they can't get all of it for one season or another. Wisconsin scientists and others have learned a crop can get only about 40 per cent of the usable organic nitrogen. So 40 per cent of 200 pounds equals 80 pounds, or the amount of nitrogen this particular acre can actually deliver.

Now suppose you want 100 bushels of corn an acre. Such yield takes 150 pounds of nitrogen. That much, the crop must be able to get from the soil. Since the crop on this acre can get only 80 pounds of the usable nitrogen, the rest must be supplied by fertilizer applications.

Any one crop can get about 60 per cent of the mineral nitrogen in such fertilizers. So to make up the remaining 70 pounds required for 100 bushels an acre, the application should be 120 pounds of nitrogen an acre. That leaves a surplus over what the crop can extract of 2 pounds. Doctor Truog suggests that isn't enough for insurance. So he would put on a little more.

L. E. Englebert is supervising a demonstration of the method on 200 Wisconsin farms this summer, with the help of Emil Jorgensen, George F.

Baumeister and various county agents. The fields average about 10 acres. Each farmer has a goal of 100 bushels of corn an acre.

To explain how the new method works, Englebert picked a case from the demonstration group. The farm was once good, but had been abused—cropped to a state of low fertility. The nitrogen test showed this silt loam soil could deliver 124 pounds of nitrogen an acre.

"We figure the corn crop could get 50 pounds of that," said Englebert, "which would mean about 35 bushels an acre. That left the farmer shy 100 pounds of nitrogen and 65 bushels of corn an acre to meet his goal.

"To make up part of the deficiency, the farmer put on 8 tons of manure an acre. That provided 80 pounds of nitrogen, but the crop could take only 30 per cent or 24 pounds. That brought the total to 74 pounds. The farmer wanted a starter fertilizer of 400 pounds 3-12-12 an acre to be applied at planting. That added 12 more pounds of nitrogen, but since the current crop is able to get only 60 per cent of mineral nitrogen, he would add only a little more than 7 pounds of usable nitrogen an acre by the application. He was still shy 69 pounds of nitrogen." So at the 60 per cent usability rate it took 115 pounds to make up the deficiency.

Check Other Supplies

Remember nitrogen applications cannot be fully effective unless other plant food supplies are right. And that includes lime, phosphorus and potassium. Also moisture and temperature conditions will affect delivery of nitrogen by the soil and use of it by the crop.

It looks like the new nitrogen test is the long-sought missing link in soil improvement and yield building. Wisconsin scientists are using it in the fertility buildup and upkeep program described elsewhere in this issue. It is not perfect. Neither are the tests for other plant foods. But as Doctor Truog explained, it is the best yet developed and it puts nitrogen testing on a par with lime, phosphorus and potassium testing. It will enable you to have your soils tested between crops, order needed nitrogen early and apply it ahead of planting or crop need.

Details of this test will not be available to soil laboratories until next fall. They are still being worked out. Procedures are still being compared. So please do not write the investigators for instructions. They are not yet ready. Also they will be of no value to individual farmers. Only soil testing laboratories can use them.

"Until Dinner Is Ready"

"Keep America Green" is a campaign of the American Forest Products Industries, Inc. Better fire prevention and forest protection work of campaign is reflected in decreased national fire losses and more timberlands under organized forest protection.

One Out of Seven people in United States today lives on a farm. This is 15 per cent of total population. Forty years ago about 35 per cent of our people lived on a farm.

Let's Take a Ride: Two thirds of U. S. farms have passenger cars and one third have trucks; reports the Automobile Manufacturers Association.

Word Gets Around: About 500 U. S. agricultural technicians now are doing technical co-operation work abroad, under programs of U. S. Government and United Nations. Needs are great for extension and agricultural education specialists.

Brother's Keeper: In 1951 a little over 10 million farm workers were feeding the 155 million people in the United States—and providing for exports. One

worker on a farm produced enough for himself and 14 others. Fifty years ago the ratio was one and 7 others.

For the Family: According to latest life insurance records of the Institute of Life Insurance, insurance per family in 1950 was \$5,100 compared with \$1,500 in 1900. National income per family in 1950 was an average \$5,400 and in 1920, \$2,900.

Serving the Country: In the 5 years since the end of World War II, new freight cars placed in service totaled 323,000, costing \$1½ billion, according to the Association of American Railroads.

Getting Results: In the Po Valley in Italy they talk of 160-bushel corn, comments the University of Illinois. Several fields have 200-bushel yields. In Holland, 80-bushel yields are common in an area which, on this continent, would lie about 500 miles north of Chicago!

Light up the House: When REA was started in 1935, only 11 per cent of farms in U. S. had power line electricity. Now, 85 per cent have it!

2 Profits, both for You

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- 2- Make a second profit by raising better crops from properly prepared seed.

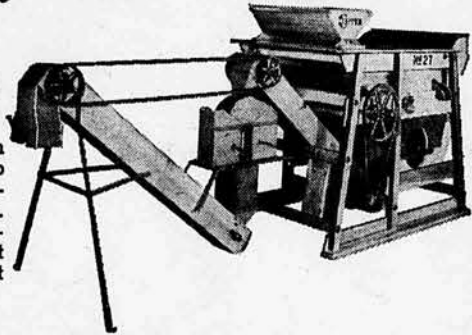


from either of these machines.

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with treater and elevator attachment

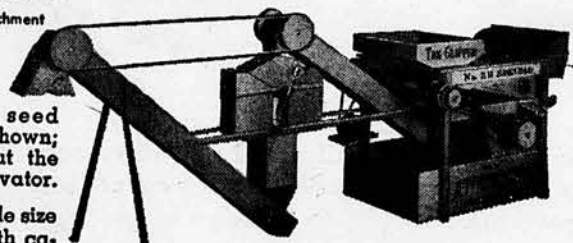
The Clipper 27 seed and bean cleaner, with capacities from 30 to 100 bu. per hr., is designed for precision market or storage cleaning. A wagon box elevator can be furnished at slight additional cost. It has a discharge height of 6 feet 10 inches.



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with treater and elevator attachment

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may save you
at least \$500



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- A one-row picker can generally circle the field before the wagon has to be changed. The two-row picker, in most cases, fills its wagon somewhere in-between. Imagine the headaches you'd have if forced to change wagons in the middle of the field!

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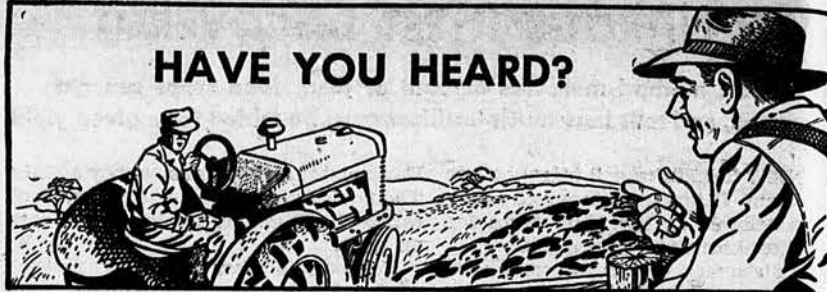
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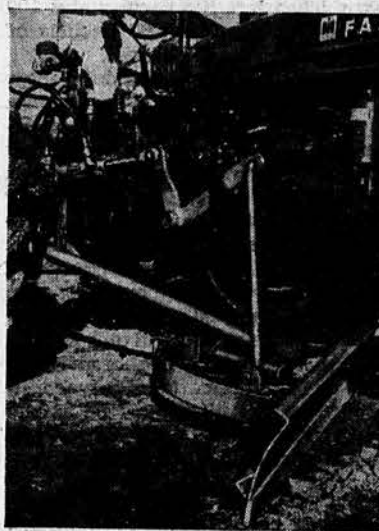
HAVE YOU HEARD?



Notes on New Products and Folks Who Make Them

The Grademaster, a tractor-mounted grader blade, is useful for building terraces and waterways, grading, leveling, and many other jobs around the farm. Manufacturer is V. L. McCormack Co., St. Louis.

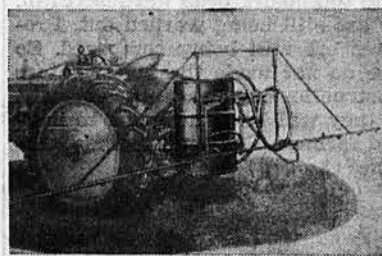
Pow-R-Ditcher is first and only machine of its kind ever manufactured—it's a ditch-digging machine, works with any farm tractor. It digs a 10 to



There is 4-way hydraulic touch-control; one man can operate Grademaster. Blade is instantly adjustable—up or down—either side while on the go!

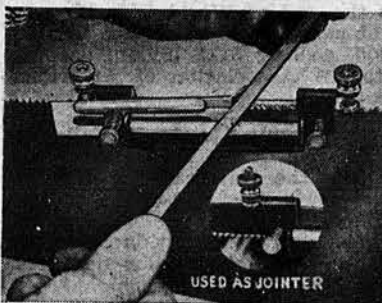
Goodyear Tire & Rubber Company, Akron, O., announces a tire designed to give as much as 42 per cent more non-skid mileage than the standard tire of today. Also, they announce a new safety tube giving complete protection against both punctures and blow-outs.

Hudson "Petey" is a new tractor power take-off sprayer featuring a positive piston pump. Is manufactured by Hudson Mfg. Co., Chicago. Other features of "Petey": quick-set pressure regulator and an 8-way boom selector valve, both within easy reach of tractor operator. Sprayer is equipped with a

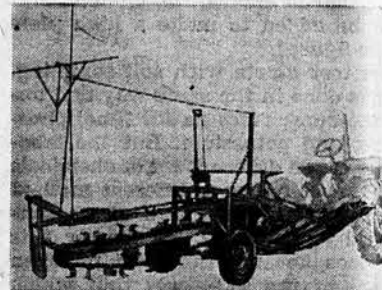


20-foot hinged boom, with 13 ten-gallon-per-acre nozzles. "Petey" is designed for general weed and insect control spraying in fields and on row crops.

Super Saw Filing and Jointing Jig makes it easy for anyone to sharpen any hand saw "factory true," says its marketer, A. D. McBurney, 317 E. 4th St., Los Angeles 13, Calif. Jig is held on saw by set screws and features 2 hardened steel depth-control rollers which roll with the file; stop it at precise



depth; keep all teeth exactly same height during filing. Overfiling is prevented.

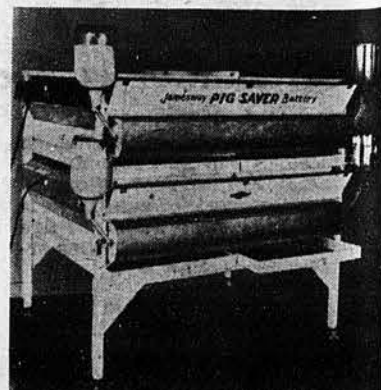


14 inch ditch, 6 feet deep at up to 3 feet per minute, depending on soil conditions. Pow-R-Ditcher is trailer mounted and uses direct drive from tractor power take-off. It's a one-man operation from tractor seat. Is simple to install—merely hooks onto drawbar and power take-off. Pow-R-Ditcher is used for tilling, for laying pipe, gas, water and sewage lines and for digging foundation trenches. Please mention "Have You Heard?" column in *Missouri Ruralist*, when writing for details.

John Deere Company announces new and improved manure spreaders—the 2-wheeled, tractor-drawn Model "L," and the 4-wheeled, tractor-or-horse-drawn Model "M." These new spreaders are easier to load, easier to pull, do better work and last longer, says the company. Other features—bigger capacity box, higher speed, widespread beater, longer-wearing roller chain drives.

Winpower Mfg. Co., Newton, Iowa, introduces a 6-ton capacity farm wagon. Operating features include "fifth wheel" steering, a 10½-foot turning radius and 17-inch axle clearance. There are heavy duty wheels, oversized spindles and higher-strength frame and bracing.

Jamesway "Pig Saver" Battery for feeding synthetic sows' milk to baby pigs after first 48 hours is made by James Mfg. Co., Fort Atkinson, Wis. The twin-deck steel battery accommodates 20 pigs, 10 on each deck, for the



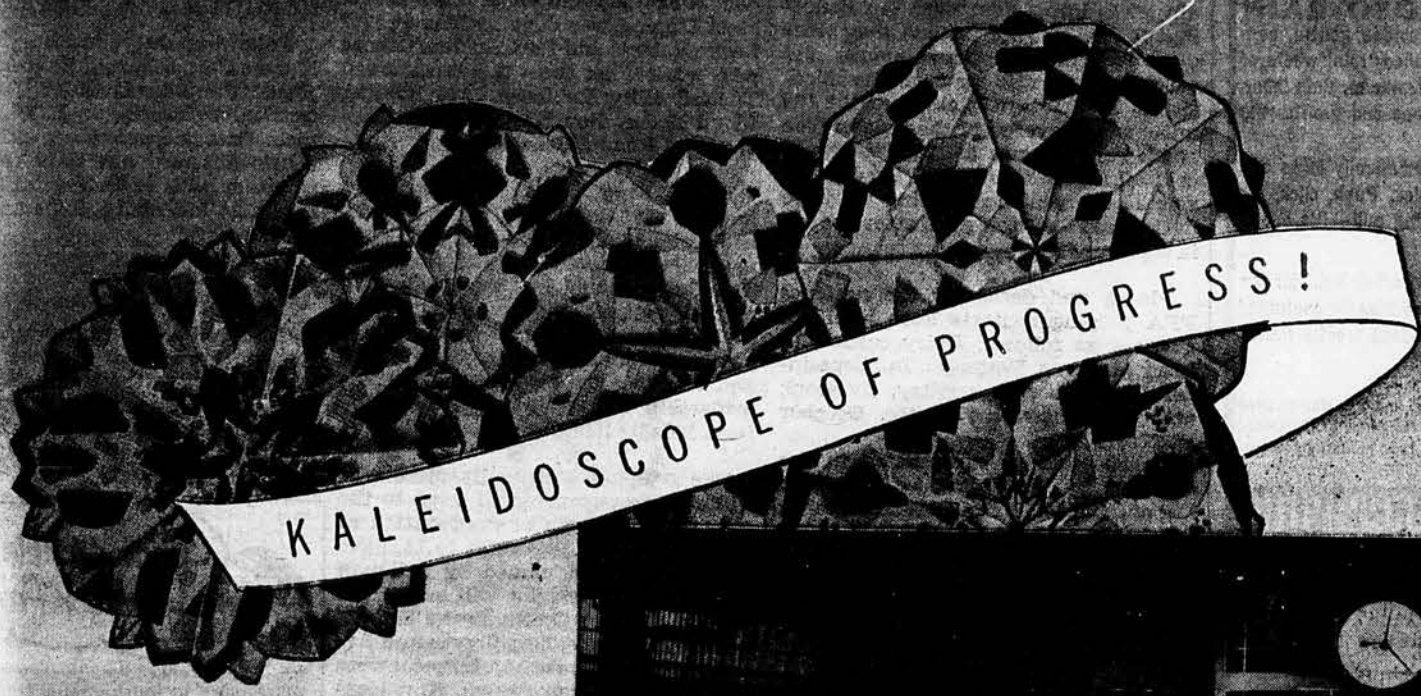
first 2 weeks. Feed trough on each deck has 10 compartments, giving even runts a chance to gain equally. There are 300-watt heat units attached at end, out of pigs' reach. Mortality can be decreased to less than 10 per cent.

Allis Chalmers Mfg. Co., Milwaukee, Wis., has honored R. A. Crosby, agricultural and export advertising manager of the tractor division, for 40 years of service. He was presented a service pin, a gold wrist watch and flowers. Mr. Crosby, a veteran of farm machine business, has spent his lifetime in the industry.

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Steel

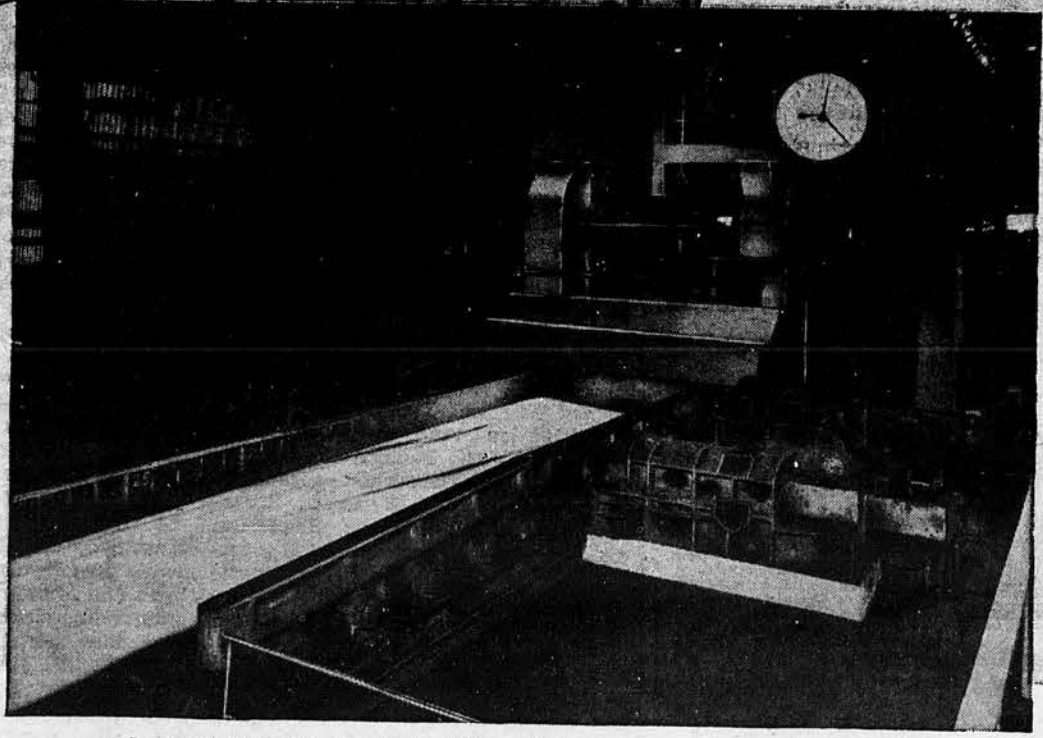
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The changing pattern of progress, West of the Mississippi and East of the Rockies, is readily traced through the pages of Sheffield history.

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Vocational Agriculture

By HELEN ANKENY



J. W. TAYLOR, Vocational Agriculture instructor at Manhattan senior high, and 7 of his Future Farmers recently returned from a trip which led them thru Lincoln, Nebraska, then west and north thru the sand hills and up to the Bad Lands, Black Hills, across the corner of Wyoming and Montana into Canada. Returning they came down thru Minnesota, Wisconsin, Iowa and Missouri. During the trip Mr. Taylor and the boys observed changes in farming conditions, plant life and occasionally picked up a new plant for mounting. Before leaving Canada they were disinfected for hoof-and-mouth disease. The trip was made in the Vocational Agriculture pickup and 2,166 miles were covered in the 6 days. The truck expense was \$68.41. "We were cold all of the time," said Taylor. "It was 35 degrees the morning we were in Canada. Beds felt good after a week in a pup tent."

Places and dates for the national FFA judging contests have been announced as follows: Dairy cattle and dairy products, Waterloo, Ia., September 29-October 1; poultry, livestock and meats, Kansas City, Mo., October 14-17.

Kansas will be represented in the contests by the following chapters: Dairy cattle, Hillsboro, W. D. Smith, coach; dairy products, Silver Lake, Dean Prochaska, coach; poultry, Chantute, C. O. Carter, Jr., coach; livestock, Moundridge, Richard Ramsdale, coach; meats, Partridge, Floyd Nighswonder, coach.

Robert C. Stephens, of Randolph, has been hired as Vocational Agriculture teacher for the coming year at the Marion high school. He will take over the initial job of operating the new department in the school system, centered in the new combination gymnasium Vocational Agriculture building.

Beloit Future Farmers again have earned first place in the annual co-operative leadership award presented annually by the Kansas Cooperative Council. This is the second consecutive year Beloit has won the award. It carries with it an engraved plaque, an expense-paid trip to the annual meeting of the Council in Topeka for 5 members of the chapter and their instructor, Frank Carpenter; and an expense-paid educational trip to the American Institute of Co-operation annual meeting at East Lansing, Mich., in August. Beloit Future Farmers will participate on the program at East Lansing. The 5 Beloit officers representing Beloit at Topeka: Loren Brown, Dan Moss, Don Zimmerman, Don Smyth and Arden Treaster.

Donald Brown, graduate this summer of LaCygne high school, received the DeKalb agricultural award given him for being the senior in the LaCygne school having the most outstanding FFA program. Donald was secretary of his FFA chapter in '50-'51 and vice-president in '51-'52.

Annual report of Kansas FFA Association showed Future Farmers of Kansas built or repaired 6,910 pieces of farm equipment; repaired or built 5,602 pieces of farm machinery; the average net worth for Kansas FFA members was \$750, and total net worth of the 6,895 members was \$5,171,250. The report also shows 8 FFA chapters were chartered during the past year, Herington, Riley, Bunker Hill, Natoma, Toronto, Burlingame, Wilson and Jetmore. The association has membership of 6,260, and 100 per cent active paid up chapters, which gives Kansas an active FFA membership of 110 per

cent on basis of enrollment. This is the highest percentage of FFA membership in the North-Central region, comprising 13 states.

Members of the Haven FFA chapter have dipped 5,406 head of sheep for 83 farmers in 9 communities with their portable sheep-dipping vat since close of school. This service was offered by Haven Future Farmers to farmers in the Haven, Yoder, Mt. Hope, Pretty Prairie, Arlington, Partridge, Langdon, Nickerson and Hutchinson areas. Most dipping was done by Marvin and Leslie Valdois and Earl Huston. Others who worked on the vat were Darrell Tucker, Billy Robinson, Art Krantz, Lloyd Yoder, Don Huston, Allen Bauman and Ronnie Rumbaugh.

Ronald King, Vocational Agriculture instructor at Colby for the last 6 years, has resigned and is operating his farm near Glasco, southwest Cloud county. The Colby school has on display numerous plaques and trophies won by Colby Future Farmers during the 6 years of King's teaching. The plaques and trophies are evidence of the fine leadership and training given Colby farm lads by King.

The 5 Beloit Future Farmers who will receive expense-paid trips to the American Institute of Cooperation at Lansing, Mich., August 11 to 14, have been chosen and named by a 5-man committee. Boys who will make the trip are Stanley Creitz, Larry Hewitt, Ronald McKinnie, Don Smyth and Arden Treaster. Named as alternates were Tom Albert, Loren Brown, Kim Kennedy, Dan Moss and Don Zimmerman. They were chosen on a basis of accomplishments in Vocational Agriculture. The 5 Beloit boys are to be guests of the Kansas Cooperative Council on the Michigan trip, won for completing more co-operative projects during the last school year than any other chapter in the state. This is the second consecutive year Beloit FFA unit has won the award. The boys will be accompanied by their Vocational Agriculture instructor, F. E. Carpenter.

Five Future Farmers and their instructor, Harry Pollock, returned recently from a 4-day trip thru Nebraska, Iowa and Missouri, where they visited outstanding farm operations. Those who made the trip besides Mr. Pollock were Glenn Keim, Gary Aberle, Paul Bechtelheimer, Darrell Henry and Gary Strahm. Subjects studied on the 800-mile, 3-day tour included pipe-line milkers, feeding ground cobs to beef cattle, pig hatcheries, spraying of fertilizers on crops, synthetic sow's milk, uses of antibiotics, home beautification, building plans, crop rotation, soil building and terracing, and breeds of cattle and hogs.

Crops Get a Drink

The Garden City branch experiment station of Kansas State College has run experiments on irrigation of crops since 1908. They're trying to find the amounts of water various crops can use profitably.

As early as 1922, it was found most profitable crops for irrigated farms are alfalfa, sugar beets and milo. Most satisfactory yields of milo under irrigation result from row spacings of 20 to 22 inches. Alfalfa can make profitable use of about 4 inches of water during its growing season. It has been estimated the value of 2 milo varieties developed by this station has been greater than the entire cost of the station. These 2 varieties are Finney and Westland. Both are resistant to Pythium root rot, a disease which threatened to eliminate milo from irrigated sections of Western Kansas.

Set Record at State 4-H Camp

A big attendance of 238 4-H youth at a 4-H camp, July 9 to 12, set a record for any encampment at Rock Springs Ranch. Robert Mueller, Haven 4-H Club, of Washington county, was elected to head the camp group.

Theme of the 1952 camp was "Take Me Out to the Ball Game." Each of groups was named after one of the major league teams. Classes were taught in first aid, group recreation, tips on demonstrations and swimming. Members also had use of the rifle range under strict supervision, horseback riding, handicraft work, nature study, volleyball, shuffle board, and softball. Counties at the record-breaking camp included Washington, Clay, Lincoln, Marshall and Ottawa.

Rejoins Ag Engineering Staff

Following duty in Korea with the Marine Corps, Harold Ramsour has joined the Kansas State College Extension engineering staff. Russell Hapich, Extension engineer in Mr. Ramsour's absence, has been transferred to assist with experimental irrigation farms at Lindsborg, Ellis and Jamar town.

To New Job

Charles Pence, county agent at Salina for several years, is the new executive director of the Kansas Wheat Improvement Association at Manhattan. He succeeds Cliff Skiver, who has resigned to devote all his time to private business interests.

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4 inches	19.60
5 inches	24.50

Ads are permitted only in Poultry, Baby Chicks, Livestock and Pet Stock Ads.
Write for special display requirements.
Kansas Farmer, Topeka, Kan.

BABY CHICKS
Forest Blueblood Chicks, broiler and egg breeds and crosses. Hatching year around. Broad-breasted Bronze, Beltsville White Poults. Guaranteed livability. DeForest Hatcheries, Box E, Leabody, Kan.

CHICKS, Reds, Hampshire, Wyandottes \$8.95; pullets, \$12.95. Leghorns, Australorps, Mille-crests, \$8.95; pullets, \$14.95; Heavy, \$14.95. Leftovers, \$4.85; Fryers, \$3.95. FOB 100% live COD. Catalog free. Bush Hatchery, Clinton, Mo.

FARMS—MISCELLANEOUS
Good Home in the Ozarks. Low taxes. Free lists. Owensby, Buffalo, Mo.
Southwest Missouri Ozark Farms. Free list. Daugherty Realty, Neosho, Mo.

Strout's Catalogs—Free! Farms, Homes, Businesses, 3,646 bargains, 31 states. World's largest, 52 years service. Strout Realty, 20-V West St., Kansas City 6, Mo.

FARM EQUIPMENT
Booms All-Purpose Wagon Unloader. Inexpensive, easily attached to your present wagon. Unloads 10 tons in seven or fourteen minutes. Free literature. Booms Silo Co., Harbor Beach, Mich.

Wire Winder. Roll and unroll barbed wire with tractor power and speed. Low cost. Free literature. Midwest Wire, Dept. 28, South St. Paul, Minn.
Ford or Ferguson 24" Hus-Kee Tractor tool box. Heavy steel. Low priced. Order from dealer or write Metal Box Co., Valparaiso, Ind.

Handyman Jack, stretches fence any kind, unloads wagons, lifts small buildings, cars, trucks, tractors, guaranteed. Price \$1.75 delivered. R. H. McIntosh, Distributor, Ridgeway, Mo.

Large Surplus equipment sale. Amazing bargains. Savings to 70%. Farm engines, A-C generators, washers, telephones, air compressors, lint spray outfits, weed spray outfits, water pumps, electric saws-drills, welders, chain saws, battery chargers, binoculars, contour levels, etc. Eight prepaid. Rush card, sale catalog. Bumen Co. Company, 877 "O" Street, Lincoln, Nebr.

MACHINERY AND PARTS
New Bow and Blue Circle Treated Baler Twine, Binder Twine, Rope, and three other brands. Wanted, dealers, distributors, salesmen. Bob one, National Twine Distributors, Chariton, Ia.

New and Used Tractor Parts. Write for big, free 1952 catalog; tremendous savings. Satisfaction guaranteed. Central Tractor Parts Co., Des Moines 3, Ia.
Complete Complete Repair Parts Stocks for Farmtracs, General Implement and Solfitter tractors, Husking beds and parts for Farm-e, G. and Case. Write for free catalog and latest dealer. L. H. Schults Manufacturing Co., Schelle, Ill.

Will Pay 20c Each, any quantity over 25, for new genuine Avery cylinder teeth, No. SS3. Ship immediately, express COD. Important, do not use Hudson teeth. Ralph Partridge, Cass City, Mich.

Save Gas, the Ideal Engine Fuel. Do you realize how much gas you lose by venting your engine? Learn about the UL approved method of using tractor tanks economically. Eliminates venting saves fuel. Send postcard today for complete information, stating local gas dealer's name. No obligation. D. H. Krug Company, Dept. 2, Madison, S. D.

EDUCATIONAL
AUCTION SCHOOL Learn Auctioneering America's Leading Auctioneers Teach You. Students sell actual sales. Largest school in world. 10 years in operation. Don't be misled. Term on file. Free catalog. Write
WISCH AUCTION SCHOOL, Mason City, Iowa

An Auctioneer. Term soon. Write for catalog. Missouri Auction School, 3241 Paseo, Kansas City, Mo.
Smith Auction School, Fort Smith, Ark. Term soon. Free catalogue.

FOR THE TABLE
MONEY Mixed
60-lb. Can \$10.50

Extracted—Pure as bees can make it.
-lb. Can Clover, FOB.....\$12.00
-lb. Can Mixed, FOB..... 10.50
-lb. Can Clover (Postpaid to 800 mi.)... 3.85
-lb. Can Mixed (Postpaid to 800 mi.)... 3.50
Order Promptly—Supply Limited
W. H. APIARIES, 1716 Lane St., Topeka, Kan.

REAL ESTATE FOR SALE
Room House—Located in this clean little town; \$1,600. G. B. Moore, Jerico Springs, Mo.

FOR SALE—TWO STORY HOUSE
Three bedrooms and bathroom, on second floor. Living room, dining room, kitchen on first floor. Basement fitted for living. Basement completely bonded—won't let in moisture. Windows weather stripped with rock wool. Drawings. In walking distance of all schools. Especially fine for family with children to educate or for adult couple wanting to rent rooms.
C. C. BROWN (Owner)
1231 Washburn Topeka, Kan.

DOGS
Fox Terrier Puppies. Can be registered. J. A. Dort, Pawnee City, Nebr.
Terrier Puppies. Bred for ratters. Crusaders Kennels, Staford, Kan.

English Shepherd Pups. Breeder for 25 years. H. W. Chestnut, Chanuta, Kan.

● RABBITS AND PIGEONS
Earn Up to \$400 monthly raising Angora or New Zealand Rabbits. Plenty markets. Particulars free. White's Rabbitry, Newark, O.

● FILMS AND PRINTS
3c Deckledge Reprints 3c
Reprints size as negative 3c and oversize prints 4c. 6- or 8-exposure roll developed and printed one each 25c or two each for 35c. Three 5x7 enlargements for 50c. Four 8x10 for \$1.00. Your favorite photo copied and 10 billfold pictures 65c.
Summers Studio, Unionville, Mo.

20 DECKLEDGE REPRINTS 50c
6-8 Exposure roll developed and printed 25c; 12-exposure, 30c; Jumbo prints 4c each. Request complete prices.
TINY'S PHOTO SERVICE
Box 1068-KF Topeka, Kan.

Two Sets of "Deckledge" Prints with every 8-exposure roll finished 40c. Very finest quality. "Deckledge" reprints 3c each. Jumbo reprints 4c each. Brown Photo Company, 1910-32 Emerson, Minneapolis, Minn.

Jumbo Prints—8-exposure, 35c. 12-exposure, 50c. 16-exposure, 65c. Reprints, 5c each. The Foto Farm, Dept. KF, Box 228, Norfolk, Nebr.

Eight-Exposure Roll printed one of each 25c; two each 35c; one each Jumbo 35c. Star Photo, Denver, Colo.

16 Jumbo Prints from any size roll or negatives, 35c, with this ad. I. Skrudland, Lake Geneva, Wisc.

Better Vacation Jumbo Prints. 8-exposure roll, 35c; 12-exposure, 50c; 16-exposure, 65c; 20-exposure, \$1.00. (Within Kansas only.) Return first class mail. Kaw Photo Service, Box 528, Hutchinson, Kan.

16 Prints or 8 Jumbos from roll or negatives, 25c with this ad. C. Skrudland, Box 486, Daytona Beach, Fla.

● SEEDS
BUY SPERRY'S KY 31 FESCUE
Green pasture year around—makes fine hay. "The answer to a cattleman's prayers" I ran 75 to 100 head all winter on 60 acres, no feed, no shelter. (See Henry County agent's article in July issue of Capper's Farmer.) Drill 20 lbs. per acre August 15th to September 15th. Seed 65c lb. Order now. Send 10% with order and pay balance on delivery.
Floyd Sperry, Box 8, Route 6, Clinton, Mo.

Brome Grass Seed Wanted
Send samples stating quantity for sale.
MID-CONTINENT SEEDS, Inc.
422 N. Santa Fe Salina, Kansas

WANTED TO BUY
We are buyers of Brome, Timothy, Sweet Clover and Alfalfa Seed. Please submit samples and advise quantity for immediate bid.
F. A. MANGELSDORF SEED COMPANY
800 Main Street Atchison, Kan.

New Early Kanking Seed Wheat. Many other good varieties. Write Clark's Seed Farms, Sedgwick, Kan.

● WANTED TO BUY
Cash Paid for many old articles you no longer need. Lists, bargains, 10c. Reblit, Manitowoc, Wis.

Send Us Wool or Woolen Rags. Trade for woollens. Bating and blankets. Write for free circulars. Litchfield Woolen Co., 303 Sibley Ave. No., Litchfield, Minn.

● OF INTEREST TO WOMEN
Read Capper's Weekly and receive a gift. It's the most interesting and informative weekly newspaper you have ever seen. Write Capper's Weekly for details. Circulation Department K, Topeka, Kansas.

Thrilling, Profitable Home Business. Make fast-seller, chenille monkey trees, dolls, flowers. Terrific holiday demand. Information free. Velva, Bohemia 2, N. Y.

● FEATHERS WANTED
West Chicago Pays More: Get highest cash prices for your goose and duck feathers. Send sample for prices of used feathers. Free shipping tags. Prompt payment. Company highly rated. West Chicago Feather Company, Dept. C. G., 172 N. Aberdeen St., Chicago 7, Ill.

● OF INTEREST TO ALL
Save Chicken Feed! Don't feed the sparrows high priced chicken-feed. My homemade trap guaranteed to catch them by the dozens. Easy to make. Plans 10c and stamp. Sparrowman, 1715 Lane, Topeka, Kan.

Outdoor Toilets, Cesspools, Septic Tanks cleaned, deodorized. Saves digging, pumping. Details free. Solvex, Monticello 6, Ia.

Book on Water Witching \$1.00. Circular free. Wyss, 104 1/2 Francis, St. Joseph, Mo.

● AGENTS AND SALESMEN
Christmas Card Sensations: Sell beautiful Embossed Cards with name, \$1 per box. Quick profits to 100% on fast-selling \$1 assortments, big line. Experience unnecessary. Get free personalized samples, assortments on approval. Stuart Greetings, 325 W. Randolph, Dept. 836, Chicago 6.

Farm Implement Salesman: To sell "Farmhand" Material-Handling Implements (hydraulic loaders, spreaders, mixer-feeders, chain elevators, etc.). Each year our steady growth requires additional men. We'd like to talk to a number of ambitious, competent young men with managerial possibilities. Compensation is excellent; advancement to block managerial post is rapid for those who make good. Qualifications are: young (30-40), married, farm back-ground, sales experience in implements or hard lines; travel five days per week; willing to move. Write quickly to Frank E. Schiel, The Farmhand Company, 121 Washington Avenue South, Hopkins, Minn.

● INVESTMENTS

OVER 6% INCOME

You now can obtain over 6% income on your money if invested in Kansas Power & Light Common Stock. Dividends are paid quarterly. We, at all times, have shares for your investment.

Write today for full information.

ESTES & CO., Inc.
112 West 7th Topeka, Kan.

Beef Tour Is Popular
About 80 enthusiastic livestock producers and farm specialists attended the Shawnee County Beef Tour, July 21. Stops were made at 7 farms and pastures to inspect cattle and hear discussions on deferred feeding, rotation grazing, use of creep feeder, producing stocker calves and care of commercial cow herds.

Mix Paint Quickly
When mixing paint with a paddle, make several holes in the paddle and you will be able to mix the paint much quicker.—O. M.

Most of Us Are Born That Way

By CHARLES H. LERRIGO, M. D.

A SCHOOLTEACHER, troubled in mind and health, recently decided to consult doctors having different specialties and see what really was the matter with her. It is not surprising each one made his diagnosis according to his own view and each presented something different. The man who worked with glands decided there was a deficiency of pituitary and ovarian glands; the nerve specialist thought her trouble due to severe migraine; the man dealing with diseases of the female, reproductive organs pronounced her trouble dysmenorrhoea; and the psychiatrist classified it as a general case of overwork and family incompetency. These were offset by the orthopedist, who pronounced a spinal deformity, and the surgeon who was sure the trouble lay with the appendix.

This is not in disparagement of the diagnoses made by the medical men. Each of the six doctors was justified in his verdict by the symptoms of the woman and the physical conditions he found. Failure to solve her problem came from neglect to search her background. This woman was born with a body lacking certain essentials for normal living. She had never learned to recognize and discount her body's inadequacy.

It is not surprising none of their forms of treatment did more than to give her temporary palliation. She will never be normal, yet she need not give way to defeat. A good physician can help her. He will have to discover and recognize the constitutional inadequacy. He will have to make it clear to her that few of us are born to a perfect physical and spiritual heritage. Even those seeming near perfection in childhood are overtaken before many years by inadequacies. It therefore becomes the duty of the physician to explain that she "must fight if she would reign" and help her to do it. In such

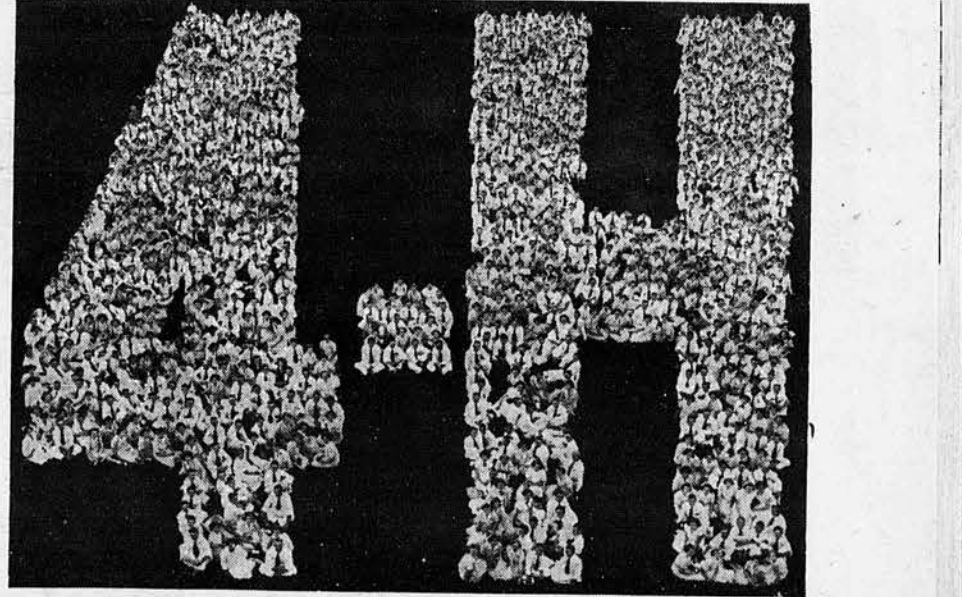
cases (and there are many) much is gained by making the patient realize that bodily deficiencies exist and giving instructions as to making up for them. To give an illustration that is not uncommon: a diabetic body does not manufacture insulin in sufficient quantities; therefore, the patient must learn how to supply the deficiency.

But one does not need to be a diabetic in order to suffer from inadequacies. A shortage of one of the vitamins (probably vitamin B in a nervous woman) will make hard living. With needed hormones and vitamins supplied and plenty of rest, a patient such as we have discussed would soon gain reserve force with which to meet the cause of her breakdown. Quite likely she would profit by a change of air and scene. A dietitian who would study her case in all of its angles would certainly help her to select a judicious diet that in itself would give such vitamins and minerals as may be necessary to make up for her deficiency.

One thing that will definitely help the woman is to face the fact she may as well make the most of her life, undertake all of the things she wants to do, and be reconciled to the fact she may never be able to do them to full satisfaction. It will also help her to know that practically all of us are constitutionally inadequate to some extent and in certain matters, especially if we have passed early youth, so she has a lot of company in this classification. Since we know that "misery loves company," it will be a source of strength for her to learn that she is not alone.

For Gilt Frames
To clean gilt frames rub them with a cut lemon and sponge with water containing tablespoonful of baking soda to pint. Or stir 1 tablespoonful of baking soda into white of an egg. Sponge mixture on frame.—A. C. K.

KANSAS 4-H'ERS GATHER FOR PICTURE



RICHEST RESOURCES Kansas has are its 4-H youth, and their talents are the state's greatest source of future development and prosperity, Dr. James A. McCain, Kansas State College president, told this group of 1,229 attending 4-H Club Round-up recently. Largest attendance in recent years gathered for annual picture.

The Man on the Mobiloil Truck has a Good Idea!



LET'S MAKE A DATE THIS WEEK TO TALK NEXT YEAR'S NEEDS!

Ask About His New Future Order Plan on Famous Farm Products!



MOBIL OIL—a heavy-duty motor oil—with super-detergency for Maximum Protection . . . Full Power and Top Operating Economy!

MOBILGREASE—stays put even under heavy shock loads—guards against harmful dirt and moisture!

MOBILUBE GEAR LUBRICANT—protects against wear . . . makes shifting easy!

It's time to get set for next year—be assured of your 1953 farm lubrication needs by ordering your requirements now! Call in your Mobilgas-Mobiloil man and place your order for Mobiloil, Mobilube, and Mobilgrease—take delivery later. You'll agree his 1953 Future Order Plan is one that you cannot pass up . . . one that benefits you.



Mobil FARM LUBRICATION

Where You Find Help

(Continued from Page 4)

would benefit from treatment. In fact, many of them could be the criminals and mental patients of tomorrow if they don't get treatment in time. Yet, where can they get the help they need?

Until recently the only answer was "Nowhere," unless the family was wealthy enough to seek aid from privately practicing psychiatrists. Now the picture is somewhat improved. Several larger Kansas cities recently have set up local child mental health services. These we listed previously.

Now, however, an outpatient service available to most Kansas families has been added by Topeka State Hospital to handle cases of children and adolescents. And at a price all can afford. This clinic does not meet the state's long-time needs, but does provide a valuable stopgap service to help people who need help—right now.

Have New Clinic

A building on the State Hospital grounds has been remodeled to house the new child mental health clinic. Here, you can bring a child upon appointment at costs ranging from 25 cents to \$10 a visit, depending upon your ability to pay.

This outpatient clinic is headed by Dr. Joe Noshpitz, a trained psychiatrist. He is assisted by Dr. Robert Roman, a psychologist, and Mildred Merrifield, a psychiatric social worker.

These 3 specialists in mental health treatment of children and adolescents work together as a team with the child and the child's family. The clinic also has consultation services of staff members from the famous Menninger Foundation, in Topeka.

Just to simplify the story, let's have Doctor Noshpitz explain how you can use this new help.

"First thing a family should do," says Doctor Noshpitz, "is write or telephone the Outpatient Department, Topeka State Hospital, Topeka, Kan., outlining the child's problem."

"This information," he continues, "will be referred to Miss Merrifield, social worker. She will make an initial evaluation which may require writing the family for more information."

May Get Interview

"Once the situation is clear and seems to warrant our help, she will ask the parents to come into the clinic for an interview—without the child, if possible. If the family lives too far away she may suggest the child be brought along. Interviews are by appointment only."

"At the first interview between parents and Miss Merrifield, the social worker will get all information possible about the child and family. Then, she and parents will come to an agreement on fees to be charged."

"Our salaries are paid out of State Hospital funds," says Doctor Noshpitz, "and any fees charged go back into the hospital general fund. No attempt is being made to make fees pay costs of our service. Hospital authorities have set a maximum fee of \$10 a visit and a minimum of 25 cents. We believe people should pay whatever they can afford, we do not accept children from families having incomes above \$6,000. They are referred to private practitioners."

"After Miss Merrifield has talked with the parents and a fee has been agreed upon, the social worker will bring the problem to the attention of

(Continued on Page 39)

Save Your Elms

A new USDA leaflet outlines ways to prevent and control the 2 dread diseases of elm trees—Dutch elm disease and elm phloem necrosis. These diseases have spread to many areas of the U. S., and insects are big troublemakers. For a copy of USDA Leaflet 329, write the Farm Service Editor, Kansas Farmer, Topeka. No charge.

staff. We will go over it together reach a decision on what help, if we may be able to give.

In some cases our help may consist of counseling for the parents on to handle their problem in the e. In other cases it may require psychiatric or psychological evaluation of the child.

We prefer to have the family physician do a physical examination before we see the child, if possible, or during time of our examination. We are going to provide a specialized kind of treatment not ordinarily available to family, but we are not in any way going to replace the family physician. At times, too, a child who appears to be emotionally or mentally disturbed has a real physical ailment that causes symptoms.

If a child proves to have a typical psychiatric problem without any neurological or other physical disturbances, will need about 4 interviews with a psychiatrist and 2 sessions with the child's psychologist in order for us to evaluate the problem. While the child is having these sessions the parents will be holding conferences with Miss Griffith so they can keep up with the progress of our evaluations and give additional information needed. At the conclusion of this evaluation, recommendations are worked out and passed on to the parents, usually through a meeting with the family, the psychiatrist and the social worker.

Will Decide on Fees

Where psychiatric treatment is indicated for the child, fees and appointments for treatment are set up. Such treatment will, as a rule, consist of regular visits by the child to the clinic with the psychiatrist or psychologist. The visits last about an hour each and occur about a week apart.

Younger children spend their hourly play in play. Play is used to permit children to express themselves more fully. The way a child behaves toward his dollhouse furniture, and his playthings often tells a great deal about his feelings toward people he lives with, toward school, and toward his entire physical and social environment. By watching this play, a trained observer often can quickly understand where the child's basic trouble lies and can begin to help him.

With adolescents, the treatment consists entirely of discussions between the adolescent and staff members. A cottage on the hospital grounds has been reserved to house adolescents if parents and doctors agree they would benefit from a residence during treatment. This is where they can get treatment keyed to their needs and will not be in contact with older and more seriously affected patients.

Once a child starts psychiatric treatment, parents are asked to ac-

company him to the clinic during treatment periods. While staff members work with the child, the social worker talks with the parents. This has 2 purposes: first, to give the psychiatrist a clearer picture of day-to-day events in the home and, in particular, the kind of emotional atmosphere in which the child lives; and second, to explain to parents the meaning of some of the child's behavior and, in particular, to tell them about changes in behavior that may occur due to treatment.

"For instance, a shy and backward child may, in the course of several months of treatment, tend to become aggressive for a time. Parents need help in understanding this.

May Take Months

"How long it will take to treat any child will depend entirely on the child's condition, but on an average most cases taken for treatment require several months of weekly visits.

"In cases where a child may have neurological complications, such as brain injury, possibility of meningitis, or some kind of brain fever of childhood resulting in a later mental disturbance, brain wave studies are performed at the clinic and neurological consultation is obtained with an expert in that field.

"For example, if a child should have epilepsy, as well as some emotional problem, we would do the neurological evaluation and then we can turn the child over to the family physician for continued treatment. Psychiatric treatment can be carried on in the clinic during the same period a child may be getting medical care from the family doctor. This, of course, requires constant co-operation among family, physician and clinic.

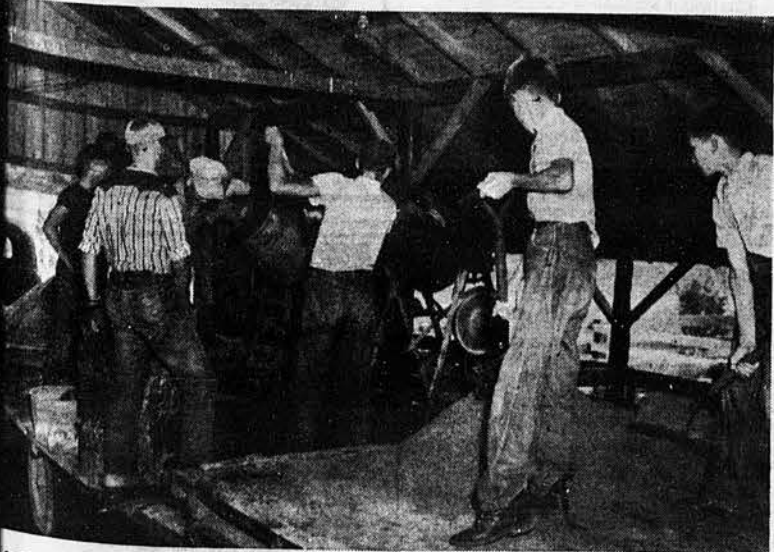
"In general," concludes Doctor Noshpitz, "we do not feel we can help individual children—we feel we can only help families."

Now, you might ask, how do we as parents determine whether our child needs the services of the new state clinic? Doctor Noshpitz suggests:

"In the presence of any behavioral disturbances such as sleep walking, night terrors, anti-social behavior, inability to make friends, constant irritability, peculiar behavior, bed wetting, and other disturbances of the relationship between a child and his family or society, the family physician should first be consulted to see whether the problem could be handled by him. If he feels specialized psychiatric care is needed you should then contact us."

You can tell by reading this article that if you live far from Topeka, using this new clinic would be expensive in time and money even tho fees charged are small. Watch for story of a proposed state-wide plan as told in our next issue.

READY FOR THE FAIR



JACKSON COUNTY 4-H'ers turned out in force recently for a 2-day pouring party. Members and leaders used 2 flatbed trucks and a trailer to support 2 cement mixers, sand, water and cement sacks as they mixed concrete hog and sheep pen floors at the Jackson county fair. Clubs carried on a similar project last year, flooring pens in their small stock building. The fair opens at Holton August 18-20.

"YOU MEAN STRONGBARN IS DIFFERENT THAN ORDINARY STEEL ROOFING AND SIDING?"

"A BIG DIFFERENCE, MY FRIEND! ONLY THE TOUGHEST STEEL CAN RESIST HARSH WIND AND WEATHER FOR YEARS."



"BUT DOESN'T HIGH-STRENGTH STEEL COST MORE?"

"NO, AND HERE'S WHY. STRONGER STEEL NEEDS LESS SUPPORT...SO...YOU ACTUALLY SAVE ON RAFTERS AND PURLINS."

"AND THAT MEANS BETTER PROTECTION FOR MY CROPS AND LIVESTOCK AT LOWER COST."

"RIGHT! AND IT ALSO MEANS USE AS STRONG AS CONVENTIONAL GRADES OF ROOFING."



"Free booklet helps you estimate and build with STRONGBARN, gives you complete details on figuring quantities, building instructions. Write for it, today!"

PATENTED
STRONGBARN
GALVANIZED STEEL
ROOFING AND SIDING



Manufactured by
GRANITE CITY STEEL COMPANY • GRANITE CITY, ILLINOIS

Lull Hereford Farm Complete Dispersion September 5, 1952 Smith Center, Kansas

STARTING PROMPTLY AT 10:30 O'CLOCK (CST)



WHR ROYAL DUKE 33D, He Sells

Featuring popular bloodlines of WHR breeding.

WHR CRAFTSMAN 28TH
WHR ROYAL DUKE 33D
WHR PATHWAY 23D

70 Cows
25 Calves at side
10 Bred Heifers
30 Open Heifers
30 Young Bulls
3 Herd Sires

The offering includes the get of EDG-CLIF MERIT DOMINO, a former herd sire. The get and services of WHR CRAFTSMAN 28 sell—he has left us with a lot of top daughters. WHR ROYAL DUKE 33 will be represented with his get and services—he was formerly owned by CK Ranch and his sons sold up to \$15,000. We purchased WHR PATHWAY 23 at the WHR Sale last year, and had not it been for this dispersion he would not be for sale as we are expecting great things from this young herd bull—his services sell. Also included in the offering will be a number of calves by PHR SUPER DONALD 50, a full brother to PHR Super Donald 18, owned by Frank Condell. The cattle will be selling in ordinary pasture condition—this is the buyer's opportunity.

Sale to be held at the farm, 2 miles east of
Smith Center, Kan., on Highway 36.

LULL HEREFORD FARM

SMITH CENTER, KANSAS

Mike Wilson for Kansas Farmer

DIXON HEREFORD PRODUCTION SALE September 3, 1952

Leon, Kansas

HAZLETT BLOODLINES

75 HEAD — 41 Cows and Calves, 16 Bred Heifers, 18 Serviceable-age Bulls
Sale will begin at 1:00 rain or shine under cover. Lunch on grounds.

For sale catalog write:
W. H. "BILL" HELDENBRAND, Auctioneer
1400 North West 22nd, Oklahoma City,
or CHARLES and MARY (Condell) DIXON
Leon, Kansas
Mike Wilson for Kansas Farmer

Registered Hereford Heifers

8 yearling heifers, 5 two-year-olds, bred to Royal Domino 43 bred bull, all are good Domino breeding.

Carl O. Hug, Carbondale, Kan.

REGISTERED

Hereford Bulls & Females

The same breeding and high quality as our recent \$1,095 champion female.

JONES HEREFORD FARMS, Detroit, Kansas

Choice 2-Year-Old Bred Box Brand

HEIFERS

Located near Cottonwood Falls, Kan. Write or call

EVAN KOGER, ROBBINS RANCH
Cottonwood Falls, Kan., Phone 451

Attend Fox's Important Draft Sale

Featuring 54 Head of Choice Milking Shorthorns
The Best in Quality and Breeding
Selling at the farm near

St. John, Kansas
September 1, 1952

The best English bloodlines bred from the choicest English families. The sale includes 27 grand breeding cows; 12 outstanding 2-year-olds TOPS, and 7 extra choice open heifers sired by imported bulls; 8 young bulls of exceptional merit and largely English bloodlines. Make this a must attend event.

Here you will see the results of importations of England's top cattle blended with the choicest American bred animals for two and three generations.

Catalogs available.

JOE A. FOX, St. John, Kansas

Public Sales of Livestock

- Aberdeen-Angus Cattle**
September 22—Ralph L. Smith Farms, Chillicothe, Mo.
September 27—Pasture to Profit Sale, Smithville, Mo. Blackridge Stock Farm, Everest, Kan., and Sun-Up Farm, Smithville, Mo.
October 22—Blackpost Ranch, Olathe, Kan.
October 29—Kansas Breeders' Association Sale, Hutchinson, Kan. Don Good, Sale Manager, Manhattan, Kan.
December 8—Annual Commercial and Purebred Sale, Dodge City, Kan. Chester I. Bare, Sale Manager, Protection, Kan.
- Ayrshire Cattle**
October 1—Charles Zimmerman, Sterling, Kan. Sale at Hutchinson fairgrounds, G. Fred Williams, Sale Manager, Hutchinson, Kan.
October 17—Kansas Ayrshire Breeders' Production Sale, Hutchinson, Kan.
- Brown Swiss Cattle**
October 15—Tri-State Brown Swiss Association, Topeka, Kan. Ross Zimmerman, Sale secretary, Abbyville, Kan.
- Dairy Cattle—All Breeds**
September 15 & 16—M.F.A. Artificially sired female sale, Springfield, Mo. J. Warren Nurdyke, Manager.
- Guernsey Cattle**
September 19—Second Cornhusker Consignment Sale, Lincoln, Nebr. Al Vary, Sales Manager, Sterling, Ill.
September 20—Wildhaven Farm Dispersal, Beatrice, Nebr. Al Vary, Sales Manager, Sterling, Ill.
October 21—Kansas Guernsey Breeders' Association, Hutchinson, Kan. C. J. Graber, Secretary, Newton, Kan.
- Hereford Cattle**
September 3—Chas. and Mary Condell Dixon, Leon, Kan.
September 5—Lull Hereford Farms, Smith Center, Kan.
September 16—Clyde E. Holman Registered Hereford Herd Reduction Sale, Richmond, Mo. Donald J. Bowman, Sales Manager, Hamilton, Mo.
September 18—Fritz Kerbs & Sons, Otis, Kan.
September 27—O'Bryan Ranch Annual 4-H and Hereford Calf Sale, Hiattville, Kan.
September 28—John W. Spencer, Straight Creek Farms, Whiting, Kan. Sale at Marysville, Kan.
October 2—Wendell Intermill, Mankato, Kan.
October 3—Frazier Hereford Farm Production Sale, St. Joe, Mo. Donald J. Bowman, Sales Manager, Hamilton, Mo.
October 3—North Central Kansas Hereford Breeders Show and Sale, Belleville, Kan. George C. Wreath, Sale Manager, Belleville, Kan.
October 6—Hiland Stock Farms, Superior, Nebr. Melvin Schliermeyer, Owner.
October 9—Jim Riffel, Junction City, Kan.
October 9—Belly Acres Ranch, Paxico, Kan.
October 16—J. R. Overstreet, Newton, Kan. (Larry Calf Sale at Eureka, Kan.)
October 18—CK Ranch, Brookville, Kan.
October 22—Twin Oak Farm, Moundridge, Kan.
October 25—Belden & Scheutz, Horton, Kan.
October 28—O'Bryan Ranch Annual Polled Hereford Sale, Hiattville, Kan.
October 31—Flint Hills Association, Cottonwood Falls, Kan.
November 1—Ely Hereford Ranch, Attica, Kan.
November 1—4-K Sale, Hutchinson, Kan.
November 6—Lincoln County, Sylvan Grove, Kan.
November 7—Cowley County Hereford Breeders' Association Sale, Arkansas City, Kan. Charles H. Cloud, Sale Manager, Winfield, Kan.
November 11—Tonn & Fishburn, Haven, Kan.
November 11—Solomon Valley Hereford Sale, Osborn, Kan.
November 12—Central Kansas Polled Hereford Sale, Herington, Kan.
November 18 and 19—Sunflower Futurity, Hutchinson, Kan.
November 21—Golden Willow Polled Hereford Sale, Pittsburg, Kan.
November 24—Sumner County Hereford Breeders' Association Sale, Wellington, Kan. Paul M. Phillippi, Secretary-Treasurer, Argonia, Kan.
November 25—Frank Matheson, Natoma, Kan., and Jake Reich & Son, Paradise, Kan. Sale at Natoma.
December 6—South Central Kansas Hereford Association, Newton, Kan. Phil H. Adrain, Sale Manager, Moundridge, Kan.
December 6—A. R. Schlickau & Sons, Haven, Kan.
December 10—B-K Herefords, Longford, Kan. Sale at Minneapolis, Kan.
- Polled Hereford Cattle**
September 20—Duey & Kilmer, sale at Hebron, Nebr.
October 8—Wm. Hargis, Belton, Mo.
October 20—Cowgill Polled Hereford Ranch, Milan, Mo.
November 14—Mid-West Polled Hereford Association Show & Sale, Deshler, Nebr. Fred C. Duey, Manager, Chester, Nebr.
- Polled Shorthorn Cattle**
October 27—Missouri Breeders' Association, Sedalia, Mo. Rollo E. Singleton, Secretary, Jefferson City, Mo.
- Jersey Cattle**
September 1—Missouri Jersey Cattle Club, St. Joseph, Mo. Ivan N. Gates, Sales Manager, West Liberty, Iowa.
October 11—Kansas Jersey Breeders' Association All Heifer Sale, John Weir, Jr., Chairman, Gueda Springs, Kan.
- Holstein Cattle**
October 8—Kansas State Holstein Association Sale, Herington, Kan. R. L. Evans, Hutchinson, Chairman State Sale Committee.
October 23—Central Kansas Breeders Fall Consignment Sale, Hutchinson, Kan. T. Hobart McVey, Sale Manager, Nickerson, Kan.
October 24—Missouri State Breeders' Association, Lee's Summit, Mo. John Cooper, Secretary, Blue Springs, Mo.
October 27—North Central Kansas Holstein Sale, Washington, Kan. Earl N. Phillips, Chairman, Manhattan, Kan.
October 29—Nebraska State Holstein Association Sale, Lincoln, Nebr. Robt. Koehler, Fremont, Secretary, T. Hobart McVey, Sale Manager, Nickerson, Kan.
- Red Poll Cattle**
September 24—G. W. Locke, Burns, Kan.
October 31—Annual Kansas and Missouri Red Poll Sale, Topeka, Kan.
- Milking Shorthorn Cattle**
October 31—Kansas State Milking Shorthorn Society Annual Sale, State Fairgrounds, Hutchinson.
November 13—McPherson County Milking Shorthorn Breeders' Association Sale, C. O. Heidebrecht, Sale Manager, Inman.
- Shorthorn Cattle**
October 31—Mid-Kansas Shorthorn Breeders Show and Sale, Salina, Kan. Mervin Aegerter, Sale Manager, Seward, Nebr.
November 6—State Polled Shorthorn Sale, Hutchinson, Kan.
November 7—State Shorthorn Sale, Hutchinson, Kan.
- Hampshire Hogs**
October 21—C. E. McClure, Republic, Kan. (night sale), Belleville fairgrounds.
- Poland China Hogs**
October 20—C. R. Rowe & Sons, Scranton, Kan.
- Duroc Hogs**
October 11—Willis Huston, Americus, Kan.

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At the show pavilion—400 Block and III Ave. 50 HEAD—REGISTERED JERSEYS
choice young cows, bred and open heifers, select young bulls. Of proven bloodlines. Many calves vaccinated. All TB and Bang's tested. Sale sponsored by Missouri Jersey Cattle Club. Sale Comm. Chr., Mrs. L. V. Lehner, Oregon, Missouri.
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Lyons, Kansas

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The past season has been very good. We are completely sold out of bulls. We are now booking orders for bull calves. Come and visit us, we might have something that would interest you. Visitors are always welcome.
LOCUST LEA FARMS
Mr. and Mrs. John C. Keas



In the Field

MIKE WILSON
TOPEKA, KANSAS
Livestock Editor

Seven registered Jerseys in the herd owned by JOHN WEIR, Jr., Geuda Springs, recently were classified by the American Jersey Cattle Club. Rated for type, 3 animals were "Very Good," 3 "Good Plus," and 1 "Good."

W. D. (BUCK) GILMORE, Highland, an enthusiastic breeder of Aberdeen-Angus cattle, recently sold a bull and cow to Eugene Chamberlain, Sulphur Springs, Tex., and a bull to Deltex Angus Farm, Cooper, Tex.

JOE O'BRYAN, Hiattville, reports the recent sale of 28 Hereford cows to Sivect Bros., Widener, Ark. 4-H Club members who are seeking calves for their project next year would do well to attend the fall sale to be held in the near future at the O'Bryan Ranch.

A number of breeders have consigned bulls to the NATIONAL SHORTHORN RANGE BULL project, at Idaho Falls, Ida., this year. Some Kansas breeders consigning are: Walter A. Hunt, Arkansas City; R. L. Bach, Larned; A. J. Dietz, Bazine and E. S. Davison, Americus. Last year, Dietz showed the champion bull at this project; show was held at Broken Bow, Nebr.

ELMER MUSIL, young Duroc breeder of Blue Rapids, in Marshall county, has planned for sometime an early fall sale of boars and gilts, also some bred gilts. Due to the new V. E. disease in hogs, Mr. Musil finds it unable to hold his sale, therefore farmers and club boys may find it profitable to visit his farm and fill their needs at private treaty.

Top-O-Day Aaggle Mutual, registered Holstein-Friesian cow owned by W. G. BIRCHER & SONS, Ellsworth, has completed a 326-day production test with the Holstein-Friesian Association of America. Her production was 517 pounds butterfat and 11,959 pounds milk, testing 4.3 per cent. She was milked 2 times daily and was 5 years 5 months when she began testing period.

Vansdale Reliance's Frolic, registered Guernsey cow owned by KEITH W. VAN HORN, Sabetha, has completed an official test with American Guernsey Cattle Club. Her record was 7,904 pounds milk and 423 pounds butterfat on twice daily milking for a 10-month period, starting her record as a junior 3-year-old.

DR. GEORGE WREATH, secretary of the North Central Kansas Hereford Breeders Association, advises us their association this year will offer 25 per cent additional premium money on all classes in Hereford breeding section of the north Central Kansas Free Fair at Belleville, August 25-29. There also will be an additional 25 per cent contributed by the National Hereford Breeders' Association. All this added together should make a very attractive premium list for the 1952 fair. All Hereford breeders with animals in condition to show and who plan on exhibiting at this year's fair should contact Homer Alkire, secretary of the big 1952 fair at Belleville.

THE NORTHWEST MISSOURI HAMPSHIRE SHEEP BREEDERS SALE, St. Joseph, August 4, was a good place to buy rams of this breed well worth the money. It was a good offering; prices paid were such that anyone wanting a good ram or some ewes could make selections at reasonable prices. F. B. Houghton, Maryville, Mo., had the grand champion ram; he was sale top. Olen Vanderslice, Winston, Mo., bought him; he gave \$125 to own him. Reserve Champion ram sold for \$100, to Edith G. Jobe, King City, Mo. Consignor was Wilma Van Trump, Elmira, Mo. High-selling ewe, at \$70, was consigned by Eugene Busby, Maryville, Mo.; purchased by Ralph Arnold, Hiawatha. Several head went to Kansas buyers. Twenty-nine rams, mostly yearlings, averaged \$57.25; 7 yearling ewes averaged \$50.70. A show was held morning of sale. Bert Powell, Topeka, was auctioneer.

Around 500 breeders and friends of the FLINT HILLS HEREFORD ASSOCIATION gathered at the 4E Ranch south of Topeka early on the morning of July 28 for a chuck wagon breakfast. At this breakfast meeting we were greeted by Mr. and Mrs. Allen Engler and 4 little Englers, therefore the title for the 4E Ranch. We were pleased to meet with the foreign delegation from the 7 countries represented: Paraguay, Egypt, Iran, Venezuela, China (Taiwan), Yugoslavia and Indonesia. This group was very interested in Herefords and the Flint Hills of Kansas. As the tour began we had the privilege of meeting them personally and visiting about their countries and their breeds of cattle. The two days were well spent; it was extremely hot and dusty the first day, that evening a cool breeze greeted the group as they entered Abilene. Pastures were quite dry and grass was not quite so luscious as 2 years ago when everything was ideal for the tour. This year, extreme of hot and dry season was very much in evidence, altho cattle were in very good condition and the tour was greatly enjoyed by all.

The EIGHTH ANNUAL MIDWEST STUD RAM SHOW and SALE, Sedalia, Mo., June 27 and 28 had a nice crowd attending both days. However, prices and averages were not up with a year ago. Ninety-three head were sold of the following breeds to make an average of \$110.75: Hampshires, Suffolks, Corriedales, Shropshires and Oxfords. Averages by breeds was Corriedales, \$64.12 on 34 head; Hampshires, \$145.85 on 53 head; Oxfords, \$60 on 2 head; Shropshires, \$40 on 2 head and Suffolks, \$95 on 2 head. Champion Hampshire ram was consigned by Charles and Mark Dempsey, Shelbina, Mo., sold for \$520 to Sheepfields Farm, New Vernon, N. J., to top the sale of the day. Top on yearling Suffolk rams was \$110 and was consigned by Roy B. Warrick & Son, Oskaloosa, Ia.; buyer was Lloyd A. Diehl, Butler, Mo. For Corriedales, top was made on the champion ram consigned by W. J. Marshall, Jr., Maumee, O., with George F. Kemberloh, Lowry City, Mo., buyer, \$225. Oxford champion ram was consigned by Joe Bill Reid, Hustonia, Mo., purchased by C. E. Burrus, Jamestown, Mo., \$65. For Shropshires, champion ram was sold for \$45; buyer was A. Linwood Page, Slater, Mo.; consignor, Chas. Strothman, Norborne, Mo. Champion Hampshire ewe was consigned by Woebeking Stock Farm, Woodburn, Ind.; sold for \$145 to Brandt Bros., Anna, O. Top on Hampshires ewes was made by Chas.

and Mark Dempsey, Shelbina, Mo.; buyer was Clyde Height, Moweaqua, Ill., at \$230. For Corriedales, top was made on the champion ewe at \$80. She was consigned by Lloyd F. Smith, Cantrill, Ia.; buyer was George F. Kemberloh, Lowry City, Mo. Judges of the show preceding day of sale was H. M. Briggs, Laramie, Wyo., and Glenn Chappell, Green Castle, Auctioneer of sale was Col. Earl Wright, Mt. Pleasant, O., assisted by members of the livestock press.

TREND OF THE MARKETS

Please remember that prices given here are Kansas City tops for best quality offered:

	Week Ago	Month Ago	Year Ago
Fed Steers	\$34.00	\$35.00	\$37.75
Hogs	23.35	22.65	22.75
Lambs	29.50	30.00	31.50
Hens, 4 to 5 lbs.	.22	.19	.25
Eggs, Standards	.42	.44	.45 1/2
Butterfat, No. 1	.65	.65	.63
Wheat, No. 2, Hard	2.36 1/2	2.33 1/2	2.42 1/2
Corn, No. 2, Yellow	1.87 1/4	1.94 1/4	1.75 1/2
Oats, No. 2, White	.95 1/2	.90 1/2	.90 1/2
Barley, No. 2	1.39	1.35	1.26
Alfalfa, No. 1	—	34.00	30.00
Prairie, No. 1	—	30.00	16.00

Kansan Becomes Maine Ag Editor

Newly-appointed agricultural editor of Maine Agricultural Experiment Station, effective August 1, is Hardy D. Berry, Kansas State College graduate. Mr. Berry grew up on a Kansas farm, has been city editor of a Manhattan daily newspaper.

Named Botany Department Head

Named as head of the botany and plant pathology department at Kansas State College to replace L. E. Melchers is Stuart McGregor Pady. The appointment was effective August 1. Professor Melchers was granted permission to be relieved of administrative duties so he could devote more time to research and writing.

Doctor Pady, of McGill University in Montreal, Canada, was head of the biology department at Ottawa University from 1936 to 1945 and a member of the Kansas State College botany staff in 1945 and 1946. He has been in Canada since 1946. Before coming to Kansas in 1936 he had been with the National Research Council in Washington, D. C. He specializes in plant diseases and life of fungi.

Kansan Elected to Regional Office

Elected vice-president of the North Central Association of Secretaries, Commissioners and Directors of Agriculture at a meeting in Topeka recently was Roy Freeland, secretary of the Kansas State Board of Agriculture.

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H. M. EDIGER, Inman, Kansas

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VERN V. ALBRECHT, Smith Center, Kansas

FLACH DUROCS For Sale Bred Gilts, by W. F. Promotor 2nd, September farrow, sired the Blue Ribbon Class and the highest selling boar at the State Show and Sale at Abilene last fall. Also some good March boars. For good Durocs see or write J. H. FLACH, Paxico, Kansas.

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SHEEP

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We offer yearling rams and ewes up to our usual standard. Stud rams, farmer rams, some top show ewes, and good ewes for the beginner. Write or come see them.
GLENN CHAPPELL, Green Castle, Mo.

Study Property Assessment Problems

Elected chairman of a state-wide group concerned with the state's property assessment problems is Clarence Rupp, Manhattan, director of information of Kansas Farm Bureau. A goal is equitable assessments.

A committee of 5 has been named to draft proposals to be submitted to the group at a meeting to be held about October 1, at Topeka. Members of the committee are: C. P. Lynam, Burdette, past president of Kansas Livestock Association and chairman of their livestock tax committee; Dr. Charles Richard, Topeka, Committee on Farm Organizations; Carl Althaus, Lawrence, executive secretary, Kansas School Boards Association; Carl Nordstrom, Topeka, Kansas Chamber of Commerce research director, and Dr. F. H. Guild, Kansas Legislative Council research department.

Organizations that have professed interest in the group and their objectives include those mentioned, and these others: Grange, Farmers Union, Kansas League of Municipalities, County Commissioners Association, Kansas State Teachers Association, Kansas Associated Industries, Kansas State College agricultural economics department, and Kansas University Bureau of Government Research.

IFYE GROUP DISCUSSES TRIP



ALL with experience as Exchange delegates to study farming in other lands, this group of IFYE members swapped recollections at recent 4-H Club Roundup in Manhattan. They are, front row, from left, Warren Prawl, Severance; Dorothy Van Skike, Arkansas City; Lal Sardana, of India; Betty Elliott, White City; back row, Ian Sharrock, of Australia; Mary Lou Edwards, Manhattan; Ivan Schmedemann, Junction City.

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TURN BACK TO PAGE 21

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Farm Vote Will Be Very Important When November 4 Election Arrives

By CLIF STRATTON, Kansas Farmer's National Affairs Editor

BOTH MAJOR political parties and their candidates will be wooing the farm vote between now and November 4.

Here is where the Republican strategists are doing some tall figuring these days.

In 1948, five states with heavy-voting farm populations, which had delivered 56 electoral votes to Tom Dewey in 1944, delivered those 56 electoral votes to Harry S. Truman 4 years later.

These states were: Colorado 6, Iowa 10, Ohio 25, Wisconsin 12, Wyoming 3; total 56. It was the votes of these states which made it possible for Truman to defeat Dewey in 1948, despite loss of 39 electoral votes in Alabama (11), Louisiana (10), Mississippi (9)—only 8 this year due to reapportionment based on census of 1950, South Carolina (8) and Tennessee (1).

Incidentally, if Dewey instead of Truman had carried these 5 northern states with heavy farm populations in 1948, and the other states had gone as they did, the election would have been thrown into the House of Representatives. Dewey got 189 electoral votes in 1948. Truman got 303. If the 5 states—Colorado, Iowa, Ohio, Wisconsin, Wyoming—had gone for Dewey, he would have received 245 electoral votes; Truman, 247; as noted, James Strom Thurmond (S.C.), collected 39 votes as the "Dixiecrat" candidate.

Then Congress Decides

The Constitution provides that if no candidate for President (or for Vice-President) receives a majority of electoral votes (266) the election of President goes to the House, of the Vice-President to the Senate. In the House, on President, each state has one vote. In the Senate, on Vice-President, two thirds of all members shall constitute a quorum, and a majority (49) of the whole number shall be necessary to a choice.

Getting back to the 1952 campaign. When the Democrats in their convention in effect capitulated to the Southern States by nullifying the Moody (Michigan) rule requiring all delegates to take a "loyalty oath" before they could be seated; then followed this up by nominating a senator from Alabama named John Sparkman for Vice-President, they pushed nearly shut what had looked for a while like a wide-open door thru which General Eisenhower could march in and corral the electoral vote of a number of Southern states.

Background of the back-up on the South. President Truman, a practical politician, figured out mathematically that with the Southern states in the Stevenson-Sparkman camp, the Democrats would have a good chance of carrying another election; without them, chances would be minimized. Provided, also, the Democrats could repeat, in whole or even in large part, the collecting of farm votes in Northern farm states. Hence the mild treatment of the South after the first rough night; the decision to name Sparkman for Vice-President—and many specific promises to farmers; to each and every and all groups, in the Democrat platform, to be fair about it.

Behind Democrat Ticket

Republicans, as of today, do not appear likely to garner any great number of electoral votes from the South. Last week Governor James F. Byrnes swung South Carolina behind the Democrat ticket. Senator Byrd's Virginia Democrats more than likely will follow suit when the time comes. With the chance of a Stevenson-Sparkman win, Democrat members of Congress will wind up fighting tooth and toe-nail to retain their chairmanships. Texas might go for Eisenhower; some think Mississippi could.

The "big" city vote, and in several states these are decisive in swinging the state, especially if the Negro and

"foreign and first generation of foreign parentage" citizens string along with the Democrats again.

Stevenson is not as familiar a name as Eisenhower. But in appealing for farm support he is running on a platform loaded with specific promises—per cent price support at least for basic commodities; and search for a "practicable method" of supporting perennials. Stevenson has indicated he is for the Brannan Plan as a "practicable method." But he was in the original Triple-A under Roosevelt.

Has Experienced Help

Eisenhower is the more popular name. But the GOP farm plank, like many other planks in the platform is susceptible of many interpretations—"free language" is way Kiplinger's expression. The General may correct this himself by defining more specifically his farm program would be if elected. He will have the experienced help of his brother, Milton, president Pennsylvania State, of Senator Carlsson, Rep. Clifford Hope of Kansas, in job.

By October, moreover, General Eisenhower will have impressed upon "staff" that he wants Republican support as well as Democrat and independent voters in November. The logic events seemingly will force that conclusion. The General made a good point in that direction a few minutes after he was nominated, when he called Senator Taft, and got an assurance "Mr. Republican's" support.

Price-Support Battle Ahead

Look for a renewal of the contest next Congress between the "rigid" and "flexible" price support programs, especially if the Republicans elect a President and get control of Congress, even just of the House of Representatives.

While the Republicans had control in the 80th Congress, they wrote law the Hope-Aiken bill, providing "flexible" price supports for basic commodities. The idea was that when surpluses piled up, price support would be reduced, under a formula ranging from 60 per cent to 90 per cent supports.

Democrats and Farmers Union in the 1948 campaign denounced this giving the farmer "60-cent dollars" for his crops. And, as noted, the Democrats carried at least 5 farm states which had gone Republican 4 years earlier. So the 81st Congress amended it to make a minimum of 75 per cent parity, made the operation of the "flexible" provisions optional, old or new, whichever is the higher thru extended by the 82nd Congress in 1956. Under that authority Secretary Brannan has kept the price support at 90 per cent of parity; the Democrat platform promises to continue not less than 90 per cent of parity price supports indefinitely.

Farm Prosperity In Song

Indicative of the campaign that is to be expected to be waged for the farm vote is the Democrat theme song sung at Chicago, said theme being, "Don't Let Them Take It Away," the verse reciting the "prosperity" that has come to farmers and other groups.

The fixed price support program for basics have not resulted in unburdensome surpluses piling up, with wheat, due to war demands for foreign aid programs. But with a carryover July 1 of 253,895,000 bushels prospect for a wheat surplus not far ahead look reasonable—barring more war demands or 2 or 3 years drouth. Commodity Credit Corporation holdings of old and new wheat loan probably are around 550 million bushels, so the supply of "free" wheat this marketing year probably will be small enough to hold prices at possibly higher levels.

Marketing Viewpoint

LAWRENCE W. VAN MEIR, *Livestock*
EDWARD W. SCHRUBEN, *Feed Grains*

... have a bunch of steers on grass, it pay me to full feed them for a short time?—D. B.

... these steers have good conformation and need only about 100 to 120 pounds of additional finish to make them top-grade market animals, I would recommend feeding them until October or November. There should be some additional seasonal price increases for good and choice grades of lighter cattle, especially for the top of choice slaughter cattle. However, if the cattle are not of this quality present additional feeding will not add much return.

At present feed prices, it will cost about \$35.78 to increase the weight of yearling steer from 750 to 850 pounds full feeding. To raise the weight of choice 2-year-old feeder steer from 1,050 will cost about \$37.56. Therefore, these feed costs can only be justified when they are necessary to finish the animal for a top-market grade. This is most likely in the case of choice 2-year-old feeder steers.

Will you please name the 3 top counties that are considered the greatest wheat-producing areas in the state? Also, what was the average price per bushel received by the farmer in 1951?—T. K.

Production per county varies considerably from year to year and different counties lead depending upon the vicissitudes of the weather; however, consider Reno with an average of 4,000,000 bushels; Sumner, 4,400,000 bushels; and Barton, 4,200,000 bushels the 3 leading wheat counties from the standpoint of number of bushels produced. Yield per harvested acre over the last several years has been 17.2 bushels, Sumner 12.8 bushels, and Barton, 15.0 bushels.

I assume you are interested in the average price of wheat received by Kansas farmers in 1951. It averaged \$1.16 per bushel.

More Cattle Fed

Number of cattle on feed in Kansas July 1 was 120 per cent more than last year, estimates the Kansas State Board of Agriculture and U. S. Bureau of Agricultural Economics. Actual numbers have not been estimated. Increase in feeding this year is largely result of more normal replacements during last 3 months in contrast with unusually light placements in the April-July period of 1951.

4-H CLUB NEWS

Dorothy Smith, reporter for Rainbow 4-H Club in Logan county, writes of her club's name. "A rainbow is a bow in the clouds. It is a token of God's love, a remembrance. So it is with the Rainbow 4-H Club." Life is not meant to be dull and drab and all cares and worries, no happiness, she continues, but years of 4-H work and application should be interspersed with rainbows. These can be get-together meetings, hikes, banquets, music events, contests, fairs and many other enjoyable occasions.

At the club's recent annual achievement day members determined "To Make the Best Better" in 1952. "We will meet with obstacles, courses will be difficult, obligations high and competitions great—but we look forward to the rainbows—encouragement, inspiration and fellowship—as our goals."

A proud club goal announced was 100 per cent completion of record books—2nd consecutive year. Leaders and club champions were honored, and tribute paid to parents.



Have you often wondered where a 4-H Club found its name? Dorothy Nordt, reporter of the Full-O-Pep club in Allen county, recently wrote us a short history of her club. She says, "The young people of the community had heard about 4-H work and decided to start a club. After some time, members of this club had to think of a name. The name Full-O-Pep was suggested by Margaret Nordt. No other name seemed to suit the branch so perfectly." The club was organized March 6, 1939, with the help of the county agents, Elizabeth Roniger and Earl Means. The club has won many seals for achievements, and for 4 years has been chosen first in the county, winning a trip to the American Royal Livestock Show. Full-O-Pep club also has won one Rotary club achievement award. In 11 years, there have been 106 members.

If your club has an unusual name, write us about it, and give a little bit of the history of your local organization, too.



This 4-H Club is making plans for an unusual community activity program. Mrs. Robert Williams, 4-H vice-president of Rock township in Marshall county, writes the Work-to-Win club plans a rat-extermination program. She says "we feel this would be a very worthwhile project for our club to undertake as part of our health and conservation programs."



"What Ever Happened To?" Department: These 2 former active Kansas 4-H'ers are now "teamed up," and still active in agricultural affairs in the state. Hobart Frederick, county agent at Wellington in Sumner county, became president of the Collegiate 4-H Club during his college days at Kansas State. His wife, the former Laurie Shoffner, of Saline county, was a Washington trip winner in 1940 and a member of the Who's Who's 4-H yearbook staff while a Kansas State College student. . . . George Wreath, former outstanding livestock 4-H'er in Riley county, later was president of the Collegiate 4-H Club at Kansas State. In 1941 he was a member of the high-placing college livestock judging team at the International Livestock Exposition at Chicago. In 1938 he was a member of the state-winning livestock judging team which won a trip to Chicago. Today he is a veterinarian at Belleville. His father is an outstanding Duroc raiser and a consistent exhibitor and winner at several Kansas shows.

Joins Extension Information Staff

Riley county's home agent, Marjorie Tennant, has resigned to join Kansas State College Extension information staff. A native of Pottawatomie county, Miss Tennant served at Manhattan 2 years, was Geary county home agent from 1947 to 1950.



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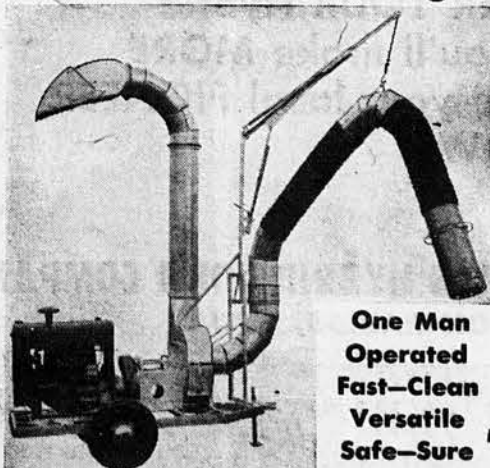


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