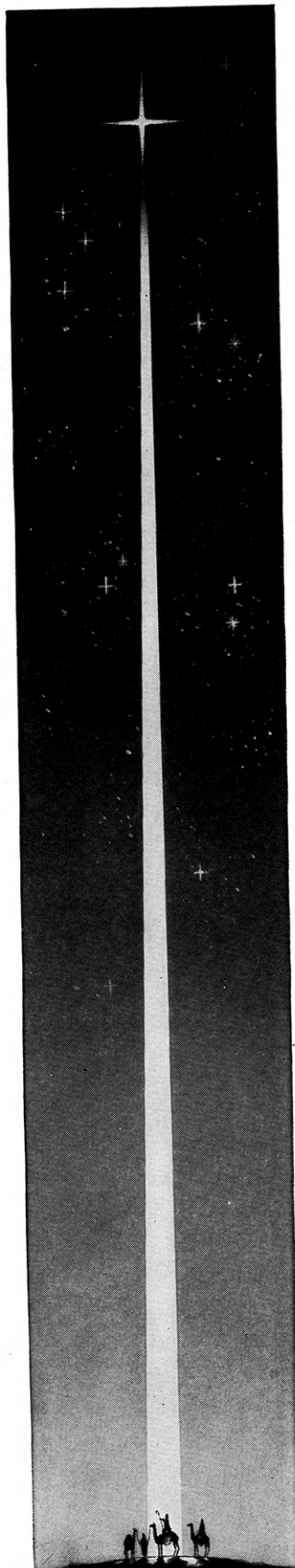




One Moment,
Wise Men...



One moment, Wise Men . . .
I'd have a word with you.

This journey that you undertake—
I know its secrets, every one.

I know the star you chase,
The gifts you bear,
And Whom it is you seek.

Believe me, Wise Men . . .
I wish I rode beside you,
But since I cannot,
I ask of you this favor—
Pray, take my gift along.

'Tis a humbler gift by far,
Than the very least of yours—
A poor vessel,
Formed of common clay
And much the worse for lack of use.

But notice, Wise Men . . .
The fullness of it now!
Brimful, it is,
Of a rare and priceless compound
No magician can concoct . . .
Of a mixture, brewed in heaven,
That all the wealth of ages
Cannot buy.

So, Wise Men . . .
I beg you, take my gift . . .
Offer it with all the treasures of your own,
And as you offer it,
Recite for me this greeting:

*"Here, King, is a beggar's gift,
An earthen vessel . . . crude, misshapen,
And of meager worth at best.*

*"Still . . . it's all I have to give,
And, bidding You accept it, King,
I send You this . . . ,*

An overflowing heart!"



JOHN DEERE • MOLINE, ILLINOIS

Barbara David

1957 Ag Queen



Fill All Your
Christmas Lists at



Manhattan's
Quality Department
Store of
Reasonable Prices

Ready to Wear, Shoes, Piece
Goods, Gifts, Notions, Mil-
linery, Cosmetics, Luggage,
Lingerie, Domestics, Men's
Furnishings, Sporting Goods,
Children's and Baby Dept.

Shop Thursdays 'til 9 p.m.
Other Week Days 9:30 to 5:30

Old Man Winter Is Here!

WINTERIZE YOUR CAR
**JERRY NOLL'S
TEXACO SERVICE**

Claflin and Denison
(At the NW Corner of Campus)

Anti-Freeze — Lub — Gas — Oil — Wash — Ice



For Three Days Service, Try

Deluxe Cleaners

FAST SERVICE

DeLUXE CLEANERS
706 N. Manhattan



Hallmark
**contemporary
cards**

**A NEW LOOK
IN CHRISTMAS
GREETINGS**
Delight your
friends with
these gay, witty
new cards. See
our complete
selection of Hall-
mark Contem-
porary Cards
for Christmas.

**CAMPUS
BOOK STORE**

WE FRAME PICTURES

*200 Molding Samples
to Choose from*

We make frames
and mats to fit the
individual picture.

**Aggie Hardware
& Electric Co.**

G. W. GIVIN
1205 Moro Phone 82993

*For 35 Years
Style Headquarters
for
Kansas State's Best Dressed
Men and Women
Featuring—*

KUPPENHEIMER
BOTANY 500
COLLEGE HALL
CLOTHCRAFT

Suits

ARROW
Dress Shirts

JANTZEN
FORSTMAN
McGREGOR

Sportswear

FLORSHEIM & FREEMAN
Shoes

STETSON
Hats

Stevenson's

317 Poyntz

*DRESS RIGHT—You Can't
Afford Not To!*



On the Cover

The agriculturalist in the year 2000 illustrates several points of the accompanying story on page 14. The ideas resulting in the cover were taken from the story and the artist's imagination.

The story, "Agriculture in the Year 2000 A. D.," naturally could not be based upon facts. The amount of progress that will take place in the next 43 years can only be estimated by the amount of progress that has taken place in the past 43 years.

"Ag in the Year 2000" cannot be regarded as pure science fiction. The story is partly to entertain and partly to reflect the opinions of agricultural specialists on what agriculture will be like in 2000. Representative specialists were asked to speculate on their individual fields.

Basic ideas were then elaborated on and filled in by the imagination of the author and by a brainstorming session of the Ag Student staff. The author doesn't claim that this story is a prediction that will come true, but neither does he claim that it won't come true. Anything that is regarded as impossible has been omitted.

—Gary Yeakley

Kansas State College AG STUDENT

Vol. XXXIV

December, 1957

No. 2

In This Issue

Ag Queen	3
Feeding Sorghums	Lon Nelson 6
Tank Water Heating	Fred Clemence 9
Farm Flying	Pat Clary 10
Christmas Sweets	Carol Ward 12
Ag in 2000 A. D.	Gary Yeakley 14
Bang's Disease	Chester Peterson 16
Who Should Farm	Richard Vanderlip 18
Tommy Dean	Don Morton 21
Aggies World	Lawrence Odgers 22
Ag Organizations	Don Schick 24



Staff

EDITORIAL

Gary YeakleyEditor
David TempletonAssistant
Loren HenryAssistant

PHOTOGRAPHER

Bill Simic

CIRCULATION

Ray LippeManager

FACULTY

Robert JonesAdviser

BUSINESS

Larry OdgersManager
Don MillerAssistant
Jerry SchweitzerSalesman
Harry ToddSalesman

STAFF REPORTERS

Carol Ward Chester Peterson
Lon Nelson Richard Vanderlip
Pat Clary Don Schick
Don Morton Fred Clemence
 Therean Towns



PHOTO CREDITS: Courtesy American Institute of Baking, 12; Allen Tilley, 17; Ag Student Photographer.

Feeding Sorghum

Summary of three tests comparing corn and milo grain in beef cattle fattening rations at K-State ending September 19, 1955

	Corn	Milo
Average initial weight per heifer, lbs.	617	621
Average final weight per heifer, lbs.	892	882
Average gain per heifer, lbs.	274	261
Average daily gain per heifer, lbs.	2.2	2.18

by *Lon Nelson*

INCREASED palatability and less digestive disturbances are advantages attributed to feeding milo over corn, according to experiments directed by D. Richardson, professor of animal husbandry at K-State. Further experimentation is presently under way.

There is no significant difference between milo and corn in the rate of gain by the animal. Carcass grade and degree of marbling are the same for the two grains. Although milo is more economical from a cost standpoint, less corn is required on a pound-for-pound basis. Milo is cheaper than an equivalent quantity of corn.

Pellets Superior

Preliminary tests at K-State indicate that finely ground milo in the form of 3/16-inch pellets is equal to corn. The milo fed in original ex-

periments was rolled into a medium-coarse grind. Animals dislike to eat finely ground grain because of dustiness. The pelleted milo also gave slightly additional gains over the rolled form.

As a result of feeding pelleted milo, the rate of daily gain and the carcass grade equaled that of corn. In addition, animals ate more milo and went on feed faster than they did when corn-fed because sorghum is more palatable.

Rations Varied

Further tests are presently being conducted. Four lots of animals are being started on a winter ration. One lot is being fed rolled milo, another pelleted milo, a third pelleted corn, and the last lot is receiving rolled corn. The animals have access to all the sorghum silage they will consume, besides four to five pounds of grain

daily and one pound of soybean oil meal. It is expected they will gain 1 1/2 to 1 2/3 pounds daily until spring when they will be started on a fattening ration, continuing through market time.

Tests Are Complete

The experiment will not end when the animals are marketed, however. Tests will continue through slaughtering in order to determine carcass grade, dressing percentage, degree of marbling, and any significant results due to the different feeds.

Results of these grain preparations will be evaluated in the form of digestible energy. Digestible energy is determined by finding the difference between the gross energy ingested and the energy excreted in the feces. Digestible energy evaluates grains more accurately than does computing the total digestible nutrients.

RESEARCH AND ENGINEERING BY LINK-BELT MAKE FARMING EASIER, MORE PROFITABLE



Today over 400 leading farm equipment manufacturers




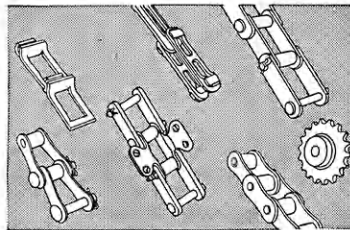
JOHN DEERE 45 COMBINE AND No. 10 CORN ATTACHMENT incorporate Link-Belt precision steel roller chain.

choose LINK-BELT chain

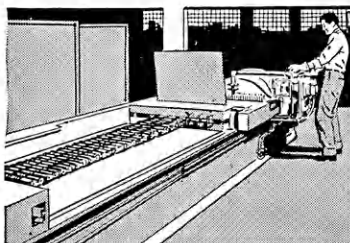
for conveying and transmitting power

ANY shortcomings in machine performance — whatever the cause — reflects on the manufacturer. That's why so many of them specify Link-Belt chain. They know that every link meets rigid uniformity specifications . . . will sustain rated efficiency. What's more, designers can draw on industry's most complete line of chains, sprockets and attachments to meet every conveyor and drive requirement.

Link-Belt combines unmatched experience and the research facilities of the world's largest chain plant in determining chain needs for modern farm equipment. When time comes to select the chain that's the efficiency equal of your machine—be sure it carries the Link-Belt double-arrow  trademark. 14,552



COMPLETE LINE of agricultural chains, sprocket wheels and attachments permits cost-saving specialization — offers right chain for all conveyor and drive needs.

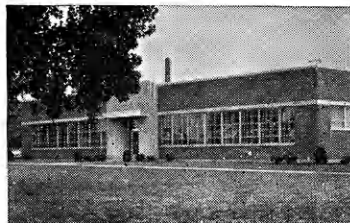


ACCURATE MANUFACTURE AND CONTINUOUS INSPECTION with modern, specialized machines allow economies of large-scale production. Extensive facilities provide ample capacity to meet your production schedules.

LINK-BELT

CHAINS AND SPROCKETS

LINK-BELT COMPANY: Executive Offices, Prudential Plaza, Chicago 1. To Serve Industry There Are Link-Belt Plants, Sales Offices, Stock Carrying Factory Branch Stores and Distributors in All Principal Cities. Export Office, New York 7; Canada, Scarboro (Toronto 13); Australia, Marrickville (Sydney), N.S.W.; South Africa, Springs. Representatives Throughout the World.



LABORATORY CONTROL assures you that each chain meets rigid uniformity specifications. Our modern laboratory continuously explores new refinements to increase chain life.



DIAMONDS
WATCHES
JEWELRY

Diamond Specialists



REED & ELLIOTT
Jewelers

Wareham Theatre Bldg.



CERTIFIED GEMOLOGIST
AMERICAN GEM SOCIETY

Farmers Union Co-operative Oil Association

AUTO, TRUCK AND TRACTOR NEEDS
PETROLEUM PRODUCTS PAINTS

Propane

Anhydrous Ammonia

130 Pierre, Manhattan, Kansas

Phone 8-2423

MOVING

Packing, Crating, Storage

FOR INFORMATION
AND FREE ESTIMATES

Call Pr. 6-9455

WATSON
TRANSFER AND STORAGE CO.

1115 Moro

CLEAN
CLOTHES
are a man's
Best Friend

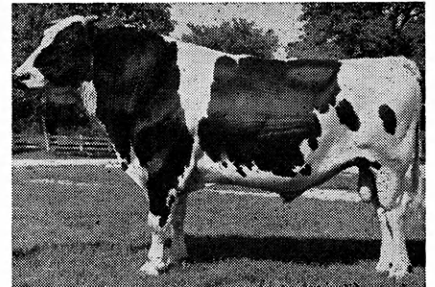
your friendly
cash and carry cleaners
in
Aggieville

**STICKEL
CLEANERS**

714-716 North 12th

Visitors Always Welcome

Kansas
Artificial
Breeding
Service
Unit



Meierkord Netherland Triune, 886182

Now in its seventh year with over 300,000 cows bred since March 1, 1950

Selected Sires *combining* Production
and Type are available to you!



Milking Shorthorn Ayrshire
Brown Swiss Jersey
Holstein Guernsey

For Further Information—
See Your County Agent

Department of Dairy Husbandry
Kansas State College
Manhattan, Kansas

"71 Counties Cooperating"
Barns located one mile west of campus

Keep That Tank Water Warm

—at all costs

by Fred Clemence



WATER is the most important and cheapest need of livestock for maximum production. Beef, pork and milk production will increase from 10 to 20 percent when livestock get all the fresh water they want when they want it.

In comparative tests at the Iowa State Experiment Station, hogs that drank from automatic waterers gained 10 pounds more per animal in six weeks than hogs watered twice a day. In other tests by the Iowa station cows that were watered automatically drank 18 percent more and gave 3½ percent more milk than cows watered twice daily. The milk given by the higher producing cows tested 10.7 percent higher overall in butterfat.

Automatic Waterer

Automatic livestock waterers are made in many sizes and shapes for all types of livestock. A unit consists of a water tank fed by pressure or a gravity water system, a float valve, a heating element controlled by a

thermostat and housing to support the tank and exclude outside air.

There are several makes of water heaters that can be installed in the automatic watering system. Gas and electric heaters are used.

Some common types of systems are general-purpose bowl-type waterers, hog waterers, cattle waterers, and combination cattle and hog waterers. Combination waterers have a tank about 26 inches above the ground level for cattle and a trough at a lower level for hogs.

Select Proper Heater

When selecting an automatic waterer you should buy the smallest unit that will provide ample water for your livestock at all times.

A general-purpose bowl-type waterer will handle up to 30 cattle or 60 hogs. A large combination waterer will handle up to 150 cattle and 250 hogs.

When purchasing an electric unit choose a waterer that is insulated with glass wool or other insulating ma-

terial. Insulation on the sides of the waterer reduces the amount of electricity used.

Choose a cattle waterer equipped with a cover that can be placed over unused sections. A cover reduces heat loss and the amount of electricity used. A cover on a hog waterer helps keep water clean and conserves heat. Select a waterer that can be cleaned easily and can be equipped with a drain or dumped.

Maintain the water temperature no higher than is necessary to prevent surface water freezing. This will usually be between 45° and 50°. It has been proven that production has not increased by heating water to a temperature above that necessary to prevent freezing.

The cost of automatic waterers ranges from about \$40 for small units to more than \$100 for large combination units. Annual depreciation and maintenance charges are about 10 percent of the cost of the waterer.

Automatic watering systems have been proven to be economical and labor saving for the livestock farmer.

Farm Flying

for

Business and Pleasure

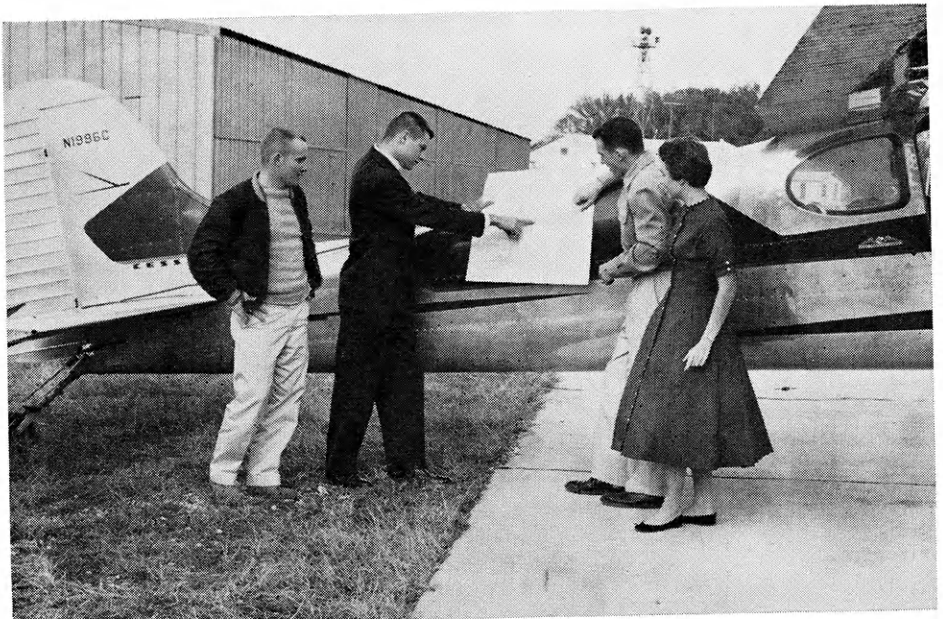
by Pat Clary

IF YOU'RE a farmer who's always up in the air about something, our advice is—stay there. According to the four K-State students pictured above, "up in the air" is one of the nicest places to be.

They're talking about being up in a plane, of course, and they say to Kansas farmers: "If you like it up in a plane, learn to love it. And then make it work for your farm and your family."

Work Is Fun by Air

"Pleasure is most important," says Phil Wright, a senior from Lyons majoring in geology. "If you really enjoy flying, you'll naturally adapt your plane and what it can do for you to your farm business. You'll find flying can do a lot of the work on your farm, but you'll think of it first as pleasure."



Prior to take-off, a map of Kansas is examined by (from left) Owen Sutter, Phil Wright, Jim Murray, and Jan White. Each has been raised on a farm that had an airplane and has done a considerable amount of flying. Wright and Murray boast pilot's licenses.

Phil, who has a private license, is the son of Mr. and Mrs. Walter Wright, Lyons. The family has a single-engine, four-passenger plane, which they find has many uses on their farm. During harvest of 1955 the beater of their self-propelled combine was blown to pieces and a new one couldn't be obtained in Lyons. So while his dad tore down the combine, Phil flew in to Wichita, got the new part, and returned in time to be in the field again in less than two hours.

Flying Is Practical

"Here's an example of the practical value of flying," says the K-Stater. "It's cheaper to drive but if your time is more valuable, then it's worth what it costs to fly."

From the Hugh White ranch near Great Bend come similar reports of the family plane coming to the rescue during an emergency. Jan White, a junior in home economics from Kingsdown, can remember several times when her dad has dropped bales of hay to cattle stranded in snow



Four up and coming flyers are (seated) Owen Sutter, animal husbandry junior from Wichita; (from left) Phil Wright, senior in geology from Lyons; Jan White, home economics senior from Kingsdown; Jim Murray, a vet medicine senior from Menlo Park, California.

storms. "There have been times, too, when we've been able to find cattle caught in a storm by looking from the air when they probably would have died in the time it takes to find them on the ground."

Mr. White once located a leak in a neighbor's irrigation system that saved a tremendous amount of time and money. "Then is when we know we don't want to go back to the days before we got the plane," said the attractive coed.

Weekend Trips

The Whites like to fly to Denver or Kansas City for the week end to shop or attend some special event. With the travel time saved by flying they have found a week end is lengthened enough to make the trip worth while.

Ranching by Air

"We found we could check the ponds and water holes on our ranch near Woodward, Oklahoma, in a couple of hours from the air," reports Owen Sutter, a junior in animal husbandry.

Owen's parents, Mr. and Mrs. L. T. Sutter, live at 239 Clifton, Wichita, and fly down to their ranch for the week ends in a Piper tri-pacer, which is a four-passenger plane with 150-hp engine.

"During high water we've been

able to find trapped cattle from the air and get to them on horses in time to save them." This is one of the many situations where speed was the major factor and Owen found the plane was the only possible way to keep things under control.

Spray by Air

"Another place where we've found a plane practically a necessity is in spraying," said the aggie. "Most crop spraying is done by commercial companies, since equipment is so expensive. But we're found that spraying from the air is much more effective than any other method and more than pays for itself."

A commercial spraying outfit is available in more places than most farmers usually think, believe the four young fliers. They suggest that each farmer investigate the possibilities of having his spraying done by plane and compare the results of air and ground spraying.

Although not a native Kansan, Jim Murray is another K-State student who firmly believes that flying is coming more and more into the daily lives of farmers and ranchers in the state. Murray, from Menlo Park, California, is a senior in veterinary medicine. He has a private license and does quite a bit of flying as a member of the K-State Flying club.

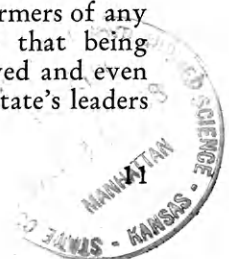
Jim likes to point to the recreational values of having a plane on the

place. "I've known people who got a big thrill from hunting coyotes from the air. It's also lots of fun to spot ducks, hunt for camp sites, or do some of the other groundwork required for most recreational activities."

Planes Becoming Popular

The future of planes on Kansas farms relies on a great many things, but the four students agree that flying for fun and for work is becoming far more accepted each year. First and probably most important, transportation by plane gives farmers a chance to get away from home in a short while, take care of their business, and return in a short time. This way the essential continuous working life of the farmer is less interrupted and farm management has fewer "stops" and "starts."

The parents of each of the three native Kansans are members of the Kansas Flying Farmers organization. The group has a great variety of organized trips, both long and short. They range from flying to a member's home for Sunday breakfast to taking part in a highly planned trip to Hawaii. Kansas has the largest membership of Flying Farmers of any state, a good indication that being "up in the air" is approved and even desired by many of the state's leaders in agriculture.



CHRISTMAS

WEETS

by Carol Ward

GOOD THINGS to eat just naturally seem to fit in with the warmth and joy of Christmas. Almost every family has a few once-a-year pastry treats that are traditionally made for the holidays.

Remember how the day before Christmas was at Grandmother's? After a meal of turkey and ham and all the trimmings, topped by Aunt Mary's special fruit cake, Grandpa built a fire and the family gathered around to sing Christmas carols.

The fruit cake recipe was a secret one, known only to Grandmother and Aunt Mary. The only time they served it was at Christmas, and it was a treat worth waiting for all year.

Aunt Mary's Fruit Cake

- 1 pound candied pineapple
- ½ pound candied cherries
- ¼ pound candied citron (optional)
- 2 pounds raisins
- 1 pound dates (optional)
- 1 pound walnuts or pecans, chopped
- 2 cups sifted flour
- ½ teaspoon mace
- 1 teaspoon cinnamon
- ½ teaspoon baking soda
- 5 eggs, beaten slightly
- ¼ cup milk
- 1 teaspoon vanilla

- ¼ pound butter or margarine
 - 1 cup brown sugar
 - 1 cup white sugar
 - ½ teaspoon salt
1. Soak raisins in rum over night. Drain.
 2. Sift dry ingredients together.
 3. Cream shortening and sugar.
 4. Mix in eggs, milk, flavoring, and flour thoroughly.
 5. Pour batter over fruit and nuts.

Mix with hands so that fruit is evenly distributed.

6. Press batter into 3 greased, paper-lined bread pans.

7. Bake at 275° F. about 3 hours.

8. Store when cool in rum-soaked cloth until ready to use. Keep cloth moist.

Later on, when the fire had died to embers, Grandmother brought out cups of steaming hot chocolate and a



Christmas cookies are not only a treat for the family, but may also be used for ornaments during the holiday season. Colored frostings may be used to add color.

plate of her special Christmas cookies. The cookie elves and Santas and bells seemed as much a part of the holiday season as did the tree. The children fastened ribbons to some of the cookies and hung them from the tree, but they were even better for eating.

These old-fashioned oatmeal ornament cookies can be decorated with icing and colored sugars. They make delicious gifts for the neighbors, too.

Oatmeal Ornament Cookies

- 1½ cups sifted flour
- 1 teaspoon baking soda
- ½ teaspoon salt
- 2/3 cup soft shortening
- 1 cup brown sugar
- 1 egg
- ¼ cup water
- 1 teaspoon vanilla
- 2 cups uncooked rolled oats

1. Sift flour, soda, and salt together. Add shortening, sugar, egg, water, and vanilla. Beat about two minutes until smooth.

2. Fold in rolled oats.

3. Roll out on lightly floured board to ⅛-inch thickness. Cut into Christmas shapes with cookie cutter.

4. Bake on greased cookie sheet about 12 to 15 minutes at 350° F.

5. When cool, frost with confectioner's sugar icing and decorate with colored candies, coconut, etc.

After the hot chocolate and cookies were gone, it was time for the children to go to bed and await the arrival of Santa Claus.

Grandmother always got up early to make an extra-special breakfast for after the gifts were opened. Today, there is no need to get up at the crack of dawn to make a coffee cake treat. One of the new quick coffee cakes allows the cook to have her cake and her beauty sleep too.

Even Grandmother approves of this easy coffee cake—says it tastes just as good as the old-fashioned kind that took hours to make.

Quick Coffee Cake

- 2 cups flour
- 4 teaspoons baking powder
- ½ teaspoon salt
- ¼ cup raisins

Color can be added to Christmas cookies with little trouble. Different colored food coloring can be applied with brush.

- ¼ cup brown sugar
- ¼ cup shortening
- 1 egg
- ½ cup milk
- 1 tablespoon melted margarine
- 1 teaspoon cinnamon
- 2 tablespoons sugar

1. Sift and measure flour. Add baking powder, salt, and brown sugar.

2. Cut in shortening.

3. Add egg and milk to form a soft dough. Add raisins.

4. Spread in well-oiled cake pan.

5. Pour melted margarine over top. Sprinkle with the 2 tablespoons sugar and the cinnamon.

6. Bake at 425° F. for 20 to 25 minutes.

The afternoon of Christmas Day was, and still is, a time for the children to play with their new toys, and for the grown-ups to go visiting. When company arrived at Grandmother's, they were always treated to home-made egg nog and cherry-topped Christmas bars.

These unusual cookies have a bright holiday look, and are sure to be a conversation piece. They are baked twice.

Cherry-topped Christmas Bars

- ½ cup margarine
- 2 tablespoons powdered sugar
- 1 cup sifted flour

1. Cream margarine and sugar.
2. Add flour. Mix until well blended.
3. Pat dough into greased 8-inch square pan.
4. Bake at 350° F. for 10 minutes.
5. Remove from oven and spread the following mixture over the top.

Cherry Topping

- 2 eggs, beaten
- 1 cup sugar
- ½ teaspoon baking powder
- ¼ cup flour
- ⅛ teaspoon salt
- ½ cup shredded coconut
- ½ cup maraschino cherries
- ½ cup chopped pecans

1. Combine eggs and sugar. Beat well.

2. Add sifted dry ingredients.

3. Fold in coconut, cherries, nuts.

4. Spread over baked dough.

5. Return to oven. Bake at 350° F. for 20 minutes.

6. Cut into 1 x 2 inch strips. Makes 32 bars.

7. Roll in powdered sugar if desired.

When the day ended, and it was time for the family to head back home, Grandmother always packed a basket full of these holiday cookies to remind us of the holiday that had just ended.



From 1914 to 1957 to . . .

Agriculture in the

• *Hydroponics*

• *Puricator irrigation*

• *Copto-spray*

• *Underground feed lots*

by Gary Yeakley

CHANGES on the earth have been constant since its creation. Not only has its topography changed, but life on the earth has changed as well. Nature changes the world slowly but constantly, while man makes his changes constantly and rapidly.

Poets and prophets predicted many of these changes, especially those to be made by man, and they were laughed at. Accurate accounts of inventions, luxuries, and living conditions in 1957 would have seemed very far-fetched even 50 years ago.

Looking Ahead

Over 60 years before the Wright brothers' first airplane, Alfred Lord Tennyson wrote these lines in Locksley Hall:

For I dipt into the future, far as
human eye could see,
Saw the Vision of the world, and
all the wonder that would be;

Saw the heavens fill with commerce,
argosies of magic sails,
Pilots of the purple twilight,
dropping down with costly bales;

Heard the heavens fill with shouting,
and there rain'd a ghastly dew
From the nations' airy navies
grappling in the central blue;

Far along the world-wide whisper
of the south-wind rushing warm,
With the standards of the peoples
plunging thro' the thunder storm;

Till the war-drum throbb'd no
longer, and the battle-flags were
furl'd
In the Parliament of man, the
Federation of the world.

These lines by Tennyson show accurate foresight concerning the airplane and aerial warfare over 60 years in the future. Let us look at the possible agricultural scene of the future.

We are now in the year 2000 A.D. Cities are larger than they were in 1950 because there are more people, but farms are larger too. Scientific improvements have made it possible for a single agriculturalist (the word farmer is obsolete) to handle larger acreage. More acreage is under cultivation now, since each year former rocky and arid soils are being converted to cultivable land, and pasture land is unnecessary. Pastures are uneconomical, since hybrid grasses can be raised on less than half the pasture acreage that would be required to maintain the same number of livestock.

Crop Raising

Wheat is still the primary crop of Kansas, although several new crops have been introduced in the past 20 years. Last year the Kansas wheat agriculturalists averaged 72 bushels per acre. The latest hybrid varieties have a much higher yield, but the availability of seed is still limited.

The sorghum agriculturalist has been encouraged recently by the use of sorghum flour for milling purposes. By use of hybrid varieties, yields have been increased. The height of corn-stalks is about three feet. This makes harvesting much easier and plants can be grown closer together.

Livestock Production

Livestock production has undergone rapid changes. Dairy agriculturalists have changed from three-times-a-day milking to constant lactation. A slow, constant milking machine is left on the cow all the time except for just before freshening periods.

Large scale beef producers maintain underground feed lots with artificial lighting. This is a definite advantage, since pastures are uneconomical. Feed and water can be sterilized before animals are allowed access to them and air can be filtered and purified to eliminate diseases.

In Kansas, irrigation is used by almost all agriculturalists since the in-

Year 2000 A.D.

• *Selective hormones*

• *Larger farms*

• *Turbo-jet tractors*

vention of Puricator irrigation. Deep wells to an apparent inexhaustible supply of salt water provide suitable irrigation water after it has been run through a Puricator. Many of the Kansas salt water irrigation wells are artesian.

Hydroponics

It is possible today to raise practically all crops by hydroponics, although soil-grown crops bring a premium. Especially in the eastern United States, skyscrapers are devoted entirely to the raising of crops. On floor after floor huge vats continually raise crops under artificial light by circulating water and nutrients around the plant roots.

Hormones Used

Plant hormones have been a great help to agriculturalists. Growth can be stimulated, delayed, or stopped temporarily with the proper plant hormone. Crops can be regulated to avoid adverse weather conditions. Crops spend less time in the field, since they can be developed faster. In periods of wet weather, a copto-spray unit (jet-rotor helicopter sprayer) can delay the maturing of a crop by spraying delaying hormones.

These hormones have been the key to weed control with selective sprays. Since different hormones affect plant

varieties differently, one type of plant can be totally controlled in a field by selective spraying. If pigweed, ragweed, and lambsquarter plants start invading a field, a mixture of the three corresponding plant hormones for control will give a spray that will eliminate these weeds from the sprayed area.

Plant diseases are being controlled by hormones too. Hormone reagents can be sprayed on plants suspected to be diseased. If, for instance, the plants have one disease, the reagent will color them yellow. If they have a different disease the reagent may color them red or brown, depending on the disease.

The atomic-powered tractor is still in the experimental stage and the remote-controlled, turbo-jet engine tractor is still in use. Once the implement is set, the tractor can be operated by remote control, usually from the farm house. The electronic signals that guide the tractor can be tape recorded so a field can be worked without manual control of the remote-control unit or constant supervision on the tele-screen. The tractor is instead guided by the recording.

The turbo-jet engine tractor develops more horsepower and better traction than either gasoline or diesel models. The turbo-jet tractor has to make use of front mounted implements so they will not be subject to the jet blast. All turbo-jet tractors

can be operated manually as well as by remote control.

The Farm House

The agriculturalist's house has the same conveniences as the city home. Agricultural houses are almost all one-story, plastic-tile structures heated by solar batteries in which the sun's heat is stored for use in cold weather.

Even the rural mail box has been replaced by modern mail tubes. The housewife is aided in rural and city areas by the auto-market. Grocery products can be selected as they appear on television daily and the housewife can order by telephone.

Progress has been rapid in the past 50 years, but it is something that doesn't stop. In looking into the future, agriculturalist leaders predict use of Mars and parts of Venus for future crop areas. Presently the cost of transporting harvested crops back to earth makes this practice uneconomical.

In the future, however, it is believed that the earth will be used principally as a dwelling place for civilization, with agricultural products coming from nearby planets. Naturally this opens a whole field of new problems. There will be new insects, new diseases, and new weeds to control and new crop varieties to develop for the different environments.

What? Bang's Disease

Where? On Kansas Farms

When? Right Now

Why? Economic Loss

How? Test Plans A, B, C

by *Chester Peterson*

KANSAS is beginning to do its part in the control of brucellosis, an infectious disease that costs the nation's farmers a total of \$160 million a year through loss of cattle and unborn calves, sterility of animals, and cost of control measures.

Spontaneous abortion or Bang's disease, as brucellosis is commonly called in farm animals, is caused by bacteria of the genus *Brucella*. There are three known types, each affecting one or more species of animals. In humans, brucellosis is called undulant fever. In 1952 there were 67 confirmed cases in Kansas. Most victims have acquired the infection while working with diseased animals, especially in packing houses. It is a proven fact that raw milk and fresh pork, when eaten, may cause undulant fever.

Kansas Lags

As can be seen from the map, Kansas is far behind most states in brucellosis control. Seven states are ascertained to be modified certified brucellosis free. Interest is being stimulated for co-operation among veterinarians, neighbors, and officials in ridding Kansas of brucellosis.

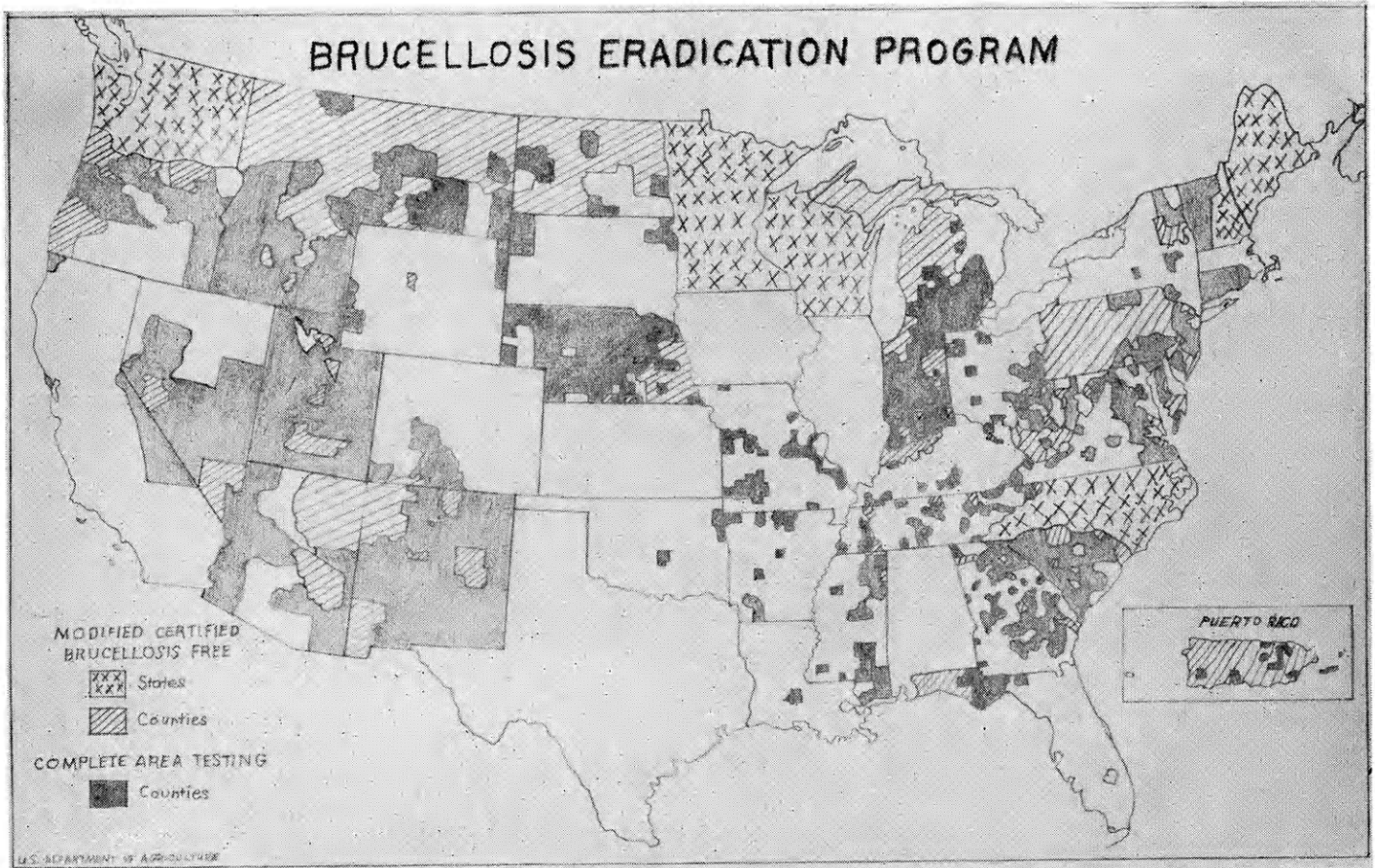
Cattlemen suffer losses due to this infection because of a smaller calf crop, lowered value of breeding stock, sterility of some infected cows, and a big drop in milk production. The cost of eradication is also expensive.

Bang's Symptoms

Recognizing the symptoms of bovine brucellosis is sometimes hard for the layman to do. It may resemble

other diseases or nutritional deficiencies that cause abortion. Recognized symptoms that should be remembered and looked for are abortion of the cow, or if the calf is carried full time, it may be very weak or born dead. After calving, a cow may retain the placenta although this isn't too positive an identification. If she is a dairy cow, her owner will notice a marked decrease in milk flow, and a tendency to be hard to settle, if at all. But, beware—some cows may be Bang's carriers, yet never abort.

The farmer, in co-operation with his veterinarian, has two methods of testing for evidence of Bang's disease. In testing dairy herds the milk ring test is sometimes used as an indicator of brucellosis in the herd. Another reason for using it is that costs are



As shown in the chart legend, the x'ed states are modified, certified brucellosis free. Diagonaled counties are Bang's

free, and shaded areas represent counties with complete area testing programs. White or gray areas have no such controls.

lessened when all the animals are tested at once.

The usual procedure is to take a sample of the herd's milk, mix it, and run the test. One big disadvantage is that not all of the cows are in production at the same time. For this reason, the wise farmer tests every six months.

Blood Test

If an unfavorable reaction is found, then the cows must be tested individually. This involves taking blood directly from the jugular vein and sending it to a federal laboratory, where a blood agglutination test is made. The results show whether a tested cow is negative, suspicious, or positive. If calthood vaccinated, suspicious animals may remain in the herd, but reactors must be sold for slaughter as soon as possible so that they will not infect healthy cows.

Kansas is doing its part in the control of brucellosis. Now a cattleman has an option of three different plans

to get rid of the disease, and to keep his herd free of infection again.

Three Test Plans

Plan A—Test all cattle, with calthood vaccination optional.

1. *Brucella abortus* vaccine may be used only on cattle 4 to 10 months of age.
2. Additions to the herd should test negative.
3. Entire herd is to be tested annually, except calthood vaccinated animals under 30 months.
4. Tag and sell reactor cattle for immediate slaughter.

Plan B—Test and vaccination, retention of reacting cattle optional.

1. Reactors are to be tagged. Suspects and reactors are to be sold for slaughter quickly.
2. Vaccinates under this plan in dairy herds shall be limited to calthood vaccination.

Plan C—Calthood vaccination with or without herd test. This plan is suited to range herds.

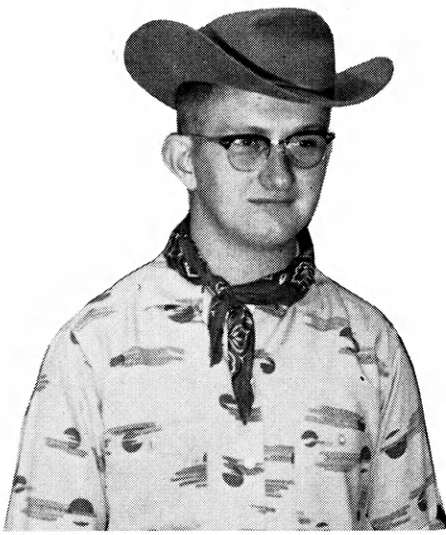
As of August, 1957, in Kansas there were 6 thousand head on test in Plan A, 5 thousand in Plan B, and 11 thousand in Plan C, making a total of 22 thousand cattle on test.

Of cattle tested in the last fiscal year, 2.56 percent were shown to be infected with Bang's. This is a big decrease from previous years, when almost no controls were used. The federal government now takes part in control work, and if necessary may even provide funds to operate a program with.

Compulsory Control

Unless a farmer is selling milk in certain milksheds, preparing cattle to show, or for interstate shipments, control work is all voluntary. However, if 75 percent or more of the farmers own 95 percent or more of the cattle in a county, they may request a public hearing to decide if they want to make testing compulsory in that area. The goal is reached when the county is declared certified brucellosis free.





Who Will Be the Farmer?

by Richard Vanderlip

The graph shows the scores of 107 farmers in the Kuder Preference survey. Scores ranging between 35 and 65 percent are not considered significant because personalities vary.

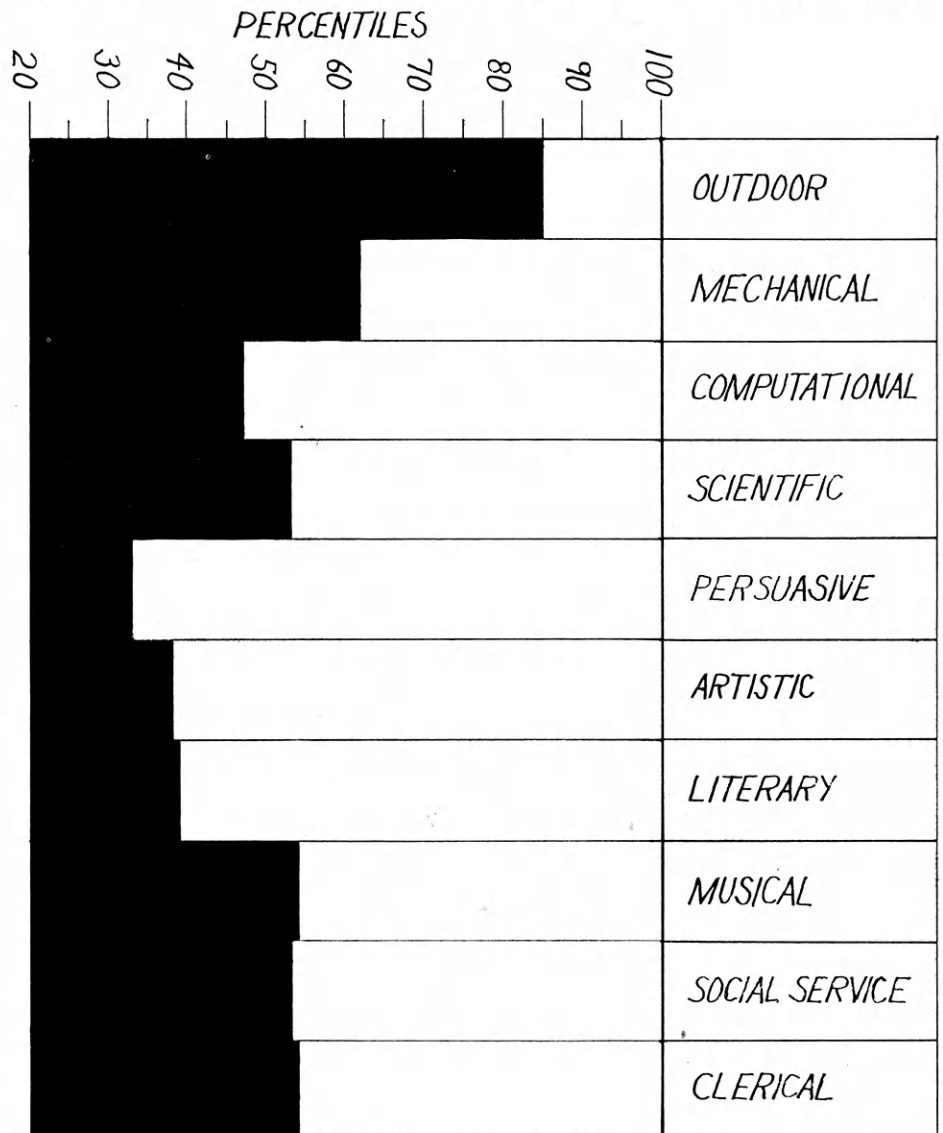
EACH year 200,000 new farmers are needed. Who should fill these positions? What personal and social characteristics and interests should a person have to choose farming as a career? Dr. Sumner Morris, director, Student Counseling Center, considers interest in farming activities an important basic factor in deciding who should farm. Other factors that he ranks high are the person's preference of variety in his work, of independence, his desire to be out of doors, and his mechanical and technical interests.

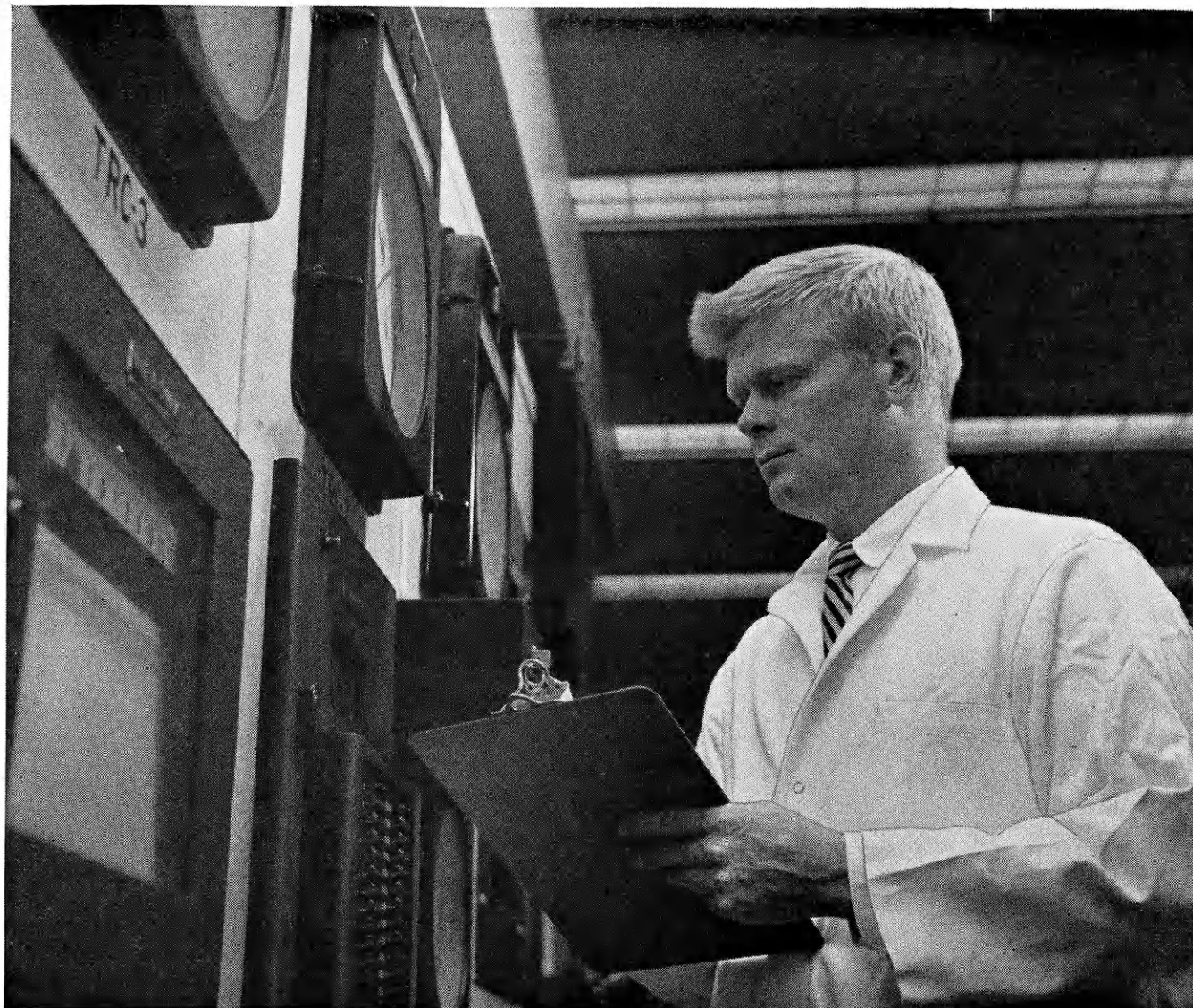
This group showed a high outdoor interest with a somewhat lesser mechanical interest. They were considered more likely to be successful, however, if they were scientifically inclined. The farmers showed a marked superiority in mechanical reasoning as compared to high school seniors, although they averaged only 11 years of schooling.

Farming—Unique Job

The desire for variety in one's work is natural for farm work. Where else can one find such a range of tasks? In what other profession can one enjoy the satisfaction of seeing wheat spring up from a bare field, grow, and bear golden grain—or watch an

(Continued on page 26)





Pushing back the frontiers...in chemistry

Exploring new frontiers is still a pretty exciting business, especially in the great scientific and research centers like the Whiting Laboratories of Standard Oil Company. Here men like Dr. Omar Juveland are engaged in important exploratory work such as the search for new and improved catalysts for use in high polymer chemistry. In the photograph, Dr. Juveland is recording data on a polymerization process taking place in this research area.

Dr. Juveland is one of the group of young scientists in Standard's Hydrocarbon and Chemicals Research Division. Born in Lake

Mills, Iowa, he did his graduate work in organic chemistry at the University of Chicago. He received his BS in chemistry from St. Olaf College, Northfield, Minnesota, in 1950. He is a member of Phi Beta Kappa, Sigma Xi, and the American Chemical Society.

Busy young men like Dr. Juveland have found opportunity and work to their liking in the Standard Oil Laboratories at Whiting, Indiana. They share in the progress and accomplishment which contribute so much to the technical advancement and improvement required by America's expanding economy.

Standard Oil Company

910 South Michigan Avenue, Chicago 80, Illinois



The Perfect Gift!

YOUR PORTRAIT
BY
STUDIO ROYAL



Do Your

CHRISTMAS

Shopping Early



Studio Royal

1200 Moro

Dial 83434

**GILLETT
HOTEL**

and

**GILLETT DINING
ROOM**

400 HOUSTON ST.

MANHATTAN, KANSAS

Phone Pr. 8-4473

(Write or phone for reservations.)

FOR COLLEGE
WEAR

Buy the

Eye Appeal
CLOTHES

at

Woody's

1227 Moro

Certified Seed



is seed of known, superior heredity and quality verified by careful field inspections and laboratory examinations, traceable through the complete historical records of the Kansas Crop Improvement Association.

For your copy of a new hybrid sorghum folder contact:

The Kansas Crop Improvement Association

MANHATTAN, KANSAS

Tommy Dean

—Shepherd

—Showman

—Feeder

TOMMY DEAN, the college shepherd, has been at K-State for nearly 38 years now. He came to K-State after living in this country only nine years. Tommy's home country was Leicestershire, England, where he gained most of his experience. He raised cattle and horses as well as sheep while living in England.

Tommy came to the United States in 1911 at the age of 21. His first job was with Watson Woods Brothers and Kelly in Lincoln, Nebraska. From 1917 to June 1919, he served in the armed forces, at which time he was stationed at Camp Funston and later was transferred to overseas duty.

K-State in 1920

Tommy became manager of the K-State sheep barn on January 1, 1920, and his former experience made the job easier for him. Tommy says that sheep in this country are of the same quality as sheep in England. This fact also helped him to get acquainted with his new job.

Tommy Dean is said to be the best sheep showman in the United States by many sheepmen. He has shown sheep at the American Royal in Kan-

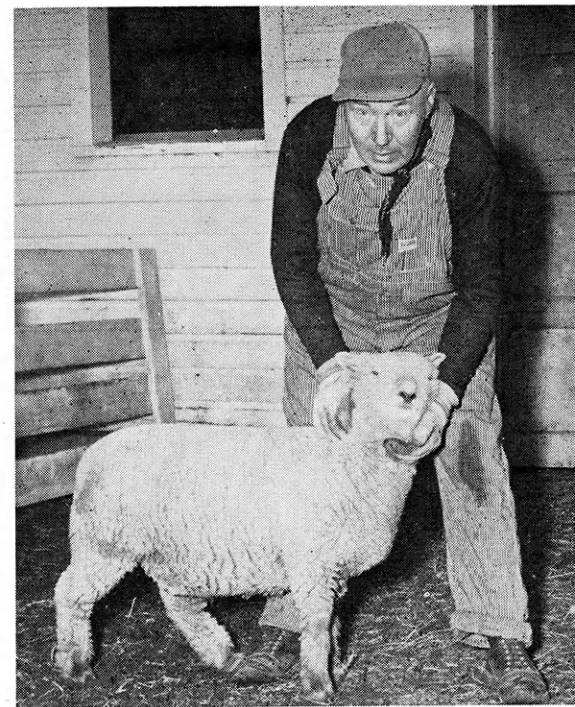
sas City every year since 1920. Between 1920 and 1930 he showed lambs at the International Livestock Exposition in Chicago. Every year Tommy brings home more honors. Among his honors is the title of having sold the highest priced lamb ever to be sold at the American Royal. It sold for \$11.33 per pound.

Feeding Is Key

The sheep that are shown at the American Royal are raised and fed by the college. The college owns 150 head of purebred ewes and 130 head of grade ewes. Tommy personally selects the lambs that are to be shown in competition and supervises the feeding of these lambs. Their ration consists of oats, barley, and some bran; however, it makes little difference how good the feed is, because it depends on how the lambs are fed, according to Tommy.

It takes the touch of the master to really do a good job of feeding. Tommy says that you have to use your head and watch the animal. When a pen of lambs clean up all their feed, they should be fed just a little more the next time.

by Don Morton



English born Tommy Dean is one of the best sheep showmen and feeders in the country. Besides his regular duties as shepherd at K-State, he is always ready and willing to give a helping hand to a stumped beginner.

In the

Aggies' World

Borden Scholarship

THE 1957-58 Borden scholarship has been awarded to Jack Van Horn, a senior in dairy husbandry. Van Horn will receive \$300 from the Borden Company Foundation, Inc.

Borden scholarships are awarded to the Agriculture senior who has the highest over-all grade average and who has enrolled in two or more dairying courses. Prof. F. W. Atkeson, chairman of the board which administers the scholarship, said that the award is not limited to students majoring in dairying, but is open to all students in the School of Agriculture who have completed two or more courses in dairying.

Van Horn has maintained a 2.747 grade average during his three years at K-State.

Previous winners in recent years are Arnold Appleby, 1956-57, a graduate student in agriculture; Lloyd Christie, 1955-56, now a student in veterinary medicine; Gary Bergman, 1954-55, serving in the U.S. Army; and Richard Brown, 1953-54, manager of Elmore dairy, Salina.

Denver Stock Show

K-STATE'S junior livestock judging team will enter the inter-collegiate judging contest at the National Western Livestock show in Denver to be held in the early part of January, according to Don Good, coach of the team.

Mr. Gail Long, college beef herdsman, is fitting about 12 to 14 head of beef cattle to go to the show.

ences so they may apply these principles to ever-changing agriculture.

College officials hope the change in education can be brought about within the next few years.

In a discussion concerning what agriculture will be like in the future, the college and university educators expressed opinions that farms will be much larger, and consequently there will be fewer farms and farmers. Agriculture will become more like a large-scale business, and good management will be essential. Agriculturalists will use more of the scientific knowledge available and will rely on the advancements in sprays, insecticides, feeding practices, and other technological developments.

There is a need for educating those who will be working in businesses related to farming. "Agricultural schools must recognize that for every man doing actual farming there are at least two agricultural workers in off-the-farm business related to agriculture," Director Wilson said.

Ag Colleges Meet

AT THE American Association of Land Grant Colleges meeting held in Denver, November 11 to 14, one of the main topics of discussion was the need for changes of curriculums in agriculture.

Director of School of Agriculture, C. Peairs Wilson, said that most of the schools represented agreed that there was a need for changes from a system of narrow specialization at the undergraduate level to a more generalized scientific type of education. These top college officials suggested that more emphasis be placed on courses in chemistry, botany, physics, and other science study courses.

Some educators advised that the schools change from the present 15-18 curriculums to three broader types of training: 1. For young men going back to farming and those going into extension work, 2. For men wanting to go into the business and economic study of agriculture, 3. A course designed for those who wish to combine the study of all sciences and apply them to agriculture.

There was general consensus that less emphasis should be placed on specialized technicians' work. Students must learn the basic principles of chemistry, botany, and other sci-

Midwest Judging Contest

KANSAS State's first annual mid-west livestock training contest held recently was termed a success, according to Prof. Don Good of the animal husbandry department.

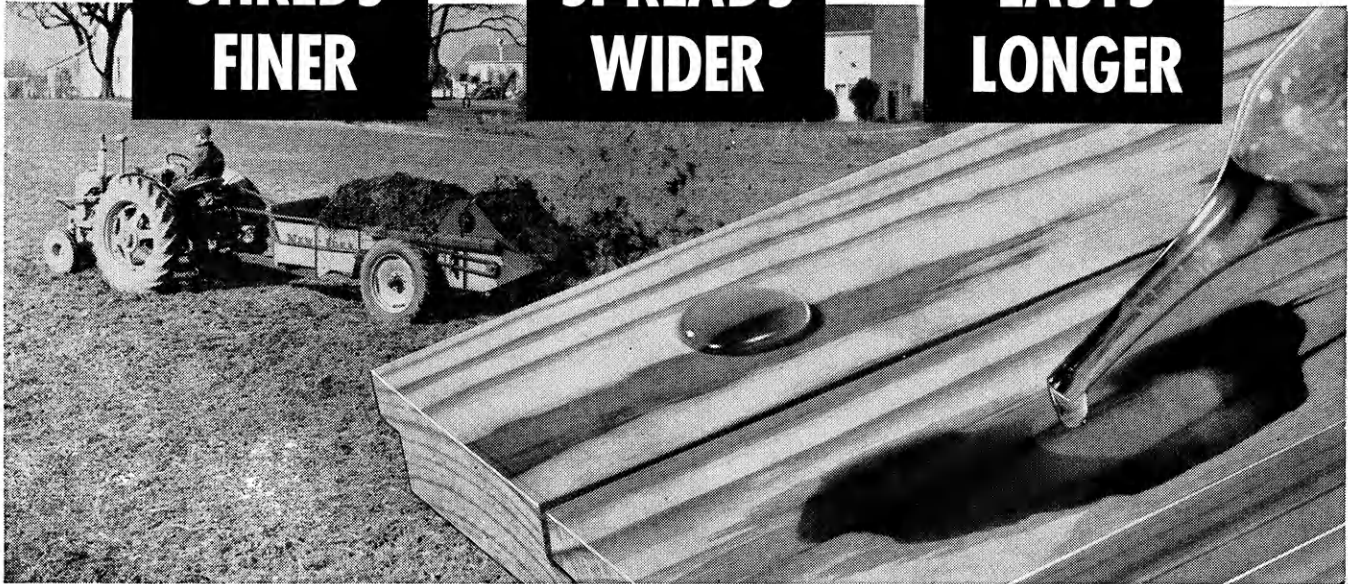
Five college judging teams were given instructions and training in selecting cattle, sheep, and hogs. K-State's senior judging team won the contest. Other colleges represented were Iowa State, Nebraska, Oklahoma State, and Missouri. Professor Good said that more schools are expected to participate in this contest in the future. The training contest was sponsored by the Kansas Junior Livestock association and the Kansas State animal husbandry department.

Top livestock judges from Kansas were selected for the training contest. Cattle were judged by Bill Ljungdahl, Menlo, Kansas, Angus breeder; Dr. Rufus Cox, head of animal husbandry department; and Lot Taylor, K-State agricultural specialist. Sheep judges were Prof. V. E. McAdams and Prof. Carl Menzies, both of the animal husbandry department. Judges for hogs were Fred Germann, Dwight, Kansas; F. W. Bell, professor in animal husbandry; and Dr. B. A. Koch of the animal husbandry department.

**SHREDS
FINER**

**SPREADS
WIDER**

**LASTS
LONGER**



One way NEW IDEA adds years of spreading. At left, water stands on surface of water repellent Penta-treated board. At right, untreated board absorbs moisture. This NEW IDEA treatment assures longer, rot-free life.

The Spreaders With Built-In Extra Years

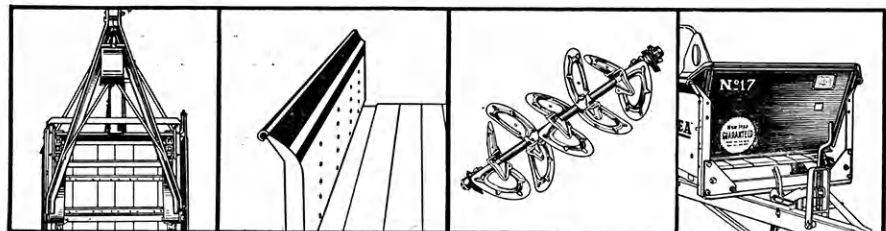
*Good reasons why
successful farmers prefer
NEW IDEA spreaders*

For nearly sixty years, NEW IDEA spreaders have been first choice of experienced farmers because they last longer, do the best job.

Last longer. Today, NEW IDEA spreaders are built to rigid standards after being tested and re-tested to the breaking point on the NEW IDEA torture track. On-farm testing proves both long life and performance. With NEW IDEA spreaders, you have lower upkeep, many added years of spreading service.

Spread better. Every NEW IDEA spreader shreds finer because the blade-like U-teeth are triple staggered to tear up the manure thoroughly. Famous NEW IDEA replaceable paddles are scientifically designed to slice through manure and deliver a wider, more uniform pattern.

Most popular. Experienced farmers know there's nothing like a NEW IDEA spreader to help them do a better job of soil conditioning. That's why more farmers use NEW IDEA spreaders than any other make.



Extra years are added. Sturdy "A" hitch, of deep formed steel members extends back and ties into the main frame for extra stability.

Extra years of slam-bang loading. Heavy gauge steel flares strengthen box, withstand shocks of mechanical loading.

Extra years added to business end. Larger tubular distributor shaft is stronger and takes shock loads with less danger of damage.

Extra years of built-in strength. Rugged, one-piece steel end-gate helps resist twisting. Protects against hydraulic loader damage.

See the newest **NEW IDEA** spreaders at your **NEW IDEA** dealer's.



75-bu. 4-wheel

95-bu.

70-bu.

125-bu. PTO

95-bu. PTO

Look at **NEW IDEA** before you buy

NEW IDEA FARM EQUIPMENT CO., DIVISION *Arco* DISTRIBUTING CORP.

Dept. 376, Coldwater, Ohio

Please send free literature on the spreaders checked:

- 125-bu. PTO
 95-bu. PTO
 95-bu.

- 70-bu.
 75-bu. 4-wheel
 Booklet "Manure Handling"

Name _____
Address _____
Town _____ State _____



Ag Organizations

by Don Schick

ARE YOU aware of all the opportunities offered in your department in the School of Agriculture? If you are not, why not join a departmental club. Here are the people to contact and some of the clubs' activities.

Plow and Pen

Students interested in agricultural journalism are invited to join the Plow and Pen club. The club has noted speakers in the field of journalism and agriculture speak at its regular meetings and has a banquet twice a year.

The officers are
GARY YEAKLEY *President*
PHIL YOUNG *Vice-president*
DON MILLER *Secretary*
ELBERT MACY *Advisor*

Ag Education

Students in agricultural education who want to become qualified and interesting teachers can meet former ag ed students at meetings of the Ag Ed club. It sponsors the state FFA farm mechanics contest, a stag watermelon feed in the fall, and a spring banquet for members and their dates.

Club officers are
DAVE MUGLER *President*
RICHARD CRANSTON *Vice-president*
JIM MACY *Secretary*
HOWARD BRADLEY *Advisor*

Ag Economics

The Ag Econ club enjoys a party at Professor George Montgomery's home each year. The club sponsors a smoker in the fall and helps to sponsor a regional convention for the ag econ departments of Nebraska university, Iowa State college, and Missouri university.

Officers to contact include:
GERALD KARR *President*
EARL CHRISTY *Vice-president*
LARRY BOONE *Secretary*
J. A. HODGES *Faculty Advisor*

Block and Bridle

Students interested in animals and animal products can join the Block and Bridle club. The club co-sponsors the Little American Royal, sponsors a livestock and meats judging contest, has a steak fry for prospective members, has a banquet in the spring, sponsors the only wool judging contest for undergraduates in the country, has a spring steak fry, and has many noted speakers at its regular meetings.

The officers are
DEAN PETER *President*
BILL CLARK *Vice-president*
LOY REINHARDT *Secretary*
D. L. MACKINTOSH *Advisor*

Poultry Science

The Poultry Science club sponsors a poultry judging contest, a trip to the Poultry Industries convention, and chicken barbecues for any organization.

The club officers are
LLOYD VERNON *President*
KENNETH HARRIS *Vice-president*
DAVID MUGLER *Secretary*
AMOS KAHRS *Advisor*

Horticulture

A horticulture judging contest is sponsored by the Horticulture club. The club also sponsors a semi-annual picnic for members and the landscaping project north of Waters hall, which will be finished this spring.

Officers to contact are
MARTIN MEYER *President*
MAX MORRIS *Vice-president*
SHARON MARTIN *Secretary*
C. V. HALL *Advisor*

Dairy

The Dairy club helps to round-out students' education in dairy husbandry. It sponsors a banquet in the spring, state FFA dairy cattle judging contest, co-sponsors the Little American Royal, and has a steak fry and square dance in the fall.

The club officers are
DARRELL WESTERVELT *President*
RAY ENGLAND *Vice-president*
RAY SCHOOLEY *Secretary*
W. H. MARTIN *Advisor*

Alpha Mu

Alpha Mu, scholastic flour and feed technology honorary, sponsors a smoker in the fall, an award for the sophomore with the highest grades in milling, and the trophy for the winning Ag Week exhibit.

Key officers are

BILL BILLIAR *President*
GENE MAURER *Vice-president*
ROBERT MALL *Secretary*
R. O. PENCE, G. D. MILLER,
E. P. FARRELL *Advisors*

Alpha Zeta

Ag students in the upper two-fifths of the Ag School in grades and who show leadership in college activities are invited to join Alpha Zeta, agricultural honorary fraternity. Alpha Zeta keeps the Ag reading room in order, sponsors a skating party, holds two banquets a year, ushers at the Little American Royal, and has many prominent speakers at meetings.

Officers of the honorary include:

BRUCE WREN *President*
CLINT PEIRCE *Secretary*
PAUL SANFORD *Advisor*

A MAN thinks of his FAMILY on CHRISTMAS

... Nearly every MAN thinks of the
future and his family's security
every day of the year!

Have YOU discovered the
miracle of LIFE INSURANCE?

Kansas Farm Life, your life insurance
service of Kansas Farm Bureau, offers many plans
of security. . . . See your general agent today!

Farm Bureau Mutual—Kansas Farm Life

INSURANCE COMPANIES

Home Office
MANHATTAN, KANSAS

Who Will Be the Farmer?

(Continued from page 18)

awkward, newborn calf mature into a smooth-finished animal?

The person who likes to "be his own boss," if other factors are favorable, should do well in farming. Farm life offers a great deal of independence; however, a person also needs to be "self-starting." He must have the initiative to get things done and not need the supervision of someone else.

Tests Show Interest

The Kuder Preference Record indicates a person's outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, and clerical interests. In an

article published posthumously, Walter Bingham states that "His (Kuder) blank is most useful when a college student wants to know how closely his interests resemble those of men (farmers who have at least five years experience) in such a population." As a group, farmers tend to score high on only the outdoor scale on the Kuder Preference Record. One study indicated that the literary, persuasive, and artistic interests of the farm group were relatively low, but not low enough to be very significant.

The importance of mechanical and scientific interests is shown in a master's thesis prepared by Mrs. Mary M. Marsh. She gave a series of aptitude, interest, and personality tests to 50 farm-reared World War II veterans.

Dr. Morris also suggests that the person who has the desire for farm life, but not the agricultural skills and knowledge, can usually acquire competence in this area in a relatively short time with intensive training and experience. The youth who has grown up on the farm may seem to have inherited the skills of a farmer, but actually they have been acquired the same as the mastery of any other trade. In a press release, Dr. Arthur Brayfield, head of the department of psychology at K-State, stated, "From the viewpoint of the best utilization of manpower, it is significant some institutions have reported an increasing proportion of their agricultural majors are city boys."

An English farmer was out in his field one morning, sprinkling purple dust over the ground, when a stranger passed by.

"Why are you sprinkling that purple dust over the ground?" he inquired.

"To keep the lions away," replied the farmer.

"My dear man," the stranger said, "don't you know there hasn't been a lion in England for two thousand years?"

"Well, confidentially," said the farmer, "it's a good thing. This stuff isn't very good."

Then there was the cow that swallowed the bottle of ink and moped indigo.

AGR: You never kissed me like that before, Mary. Is it because we're in a dark room?

Girl: No, it's because my name isn't Mary.

Professor (pointing to cigarette butt on floor): Smith, is this yours?

Smith: Not at all, sir. You saw it first.

Lorna: "Don't you wish you were a barefoot boy again?"

Baldy: "Not me, I lived on a turkey farm."

Small Boy (looking at an elephant): "Gee, Ma, ain't that a hell of a big animal?"

Horrified Ma: "How many times have I told you not to say ain't."

Pink Elephant: a beast of bourbon.

A group of fresh navy recruits were gathered sickly by the rail their first day out to sea.

An old salt joined them and asked in a sarcastic tone, "What's the matter, Johnson, you got a weak stomach?"

"Well no, sir," came the reply. "I'm throwing it as far as the others."

Censored

A man bought the only remaining sleeping car space. An old lady next in line burst into tears, wailing that it was of vital importance that she have a berth on that train. Gallantly the man sold her his ticket and then wired his home office: "Will not arrive until tomorrow. Have just given berth to an old woman."

A professor who comes in late is rare; in fact he is in a class by himself.

First Business Student: "So you went to class this morning."

Second Business Student: "What makes you think so?"

First Business Student: "Your clothes look like they've been slept in."

Friend: "What is your son going to be when he graduates?"

Father: "An old man."

First Farmer: Too bad, pal, my hen got loose and scratched up your lawn.

Second Farmer: That's okay, my dog just ate your hen.

First Farmer: Great! I just ran over your dog.

Christmas Flowers

to take home to
Mother for Christmas

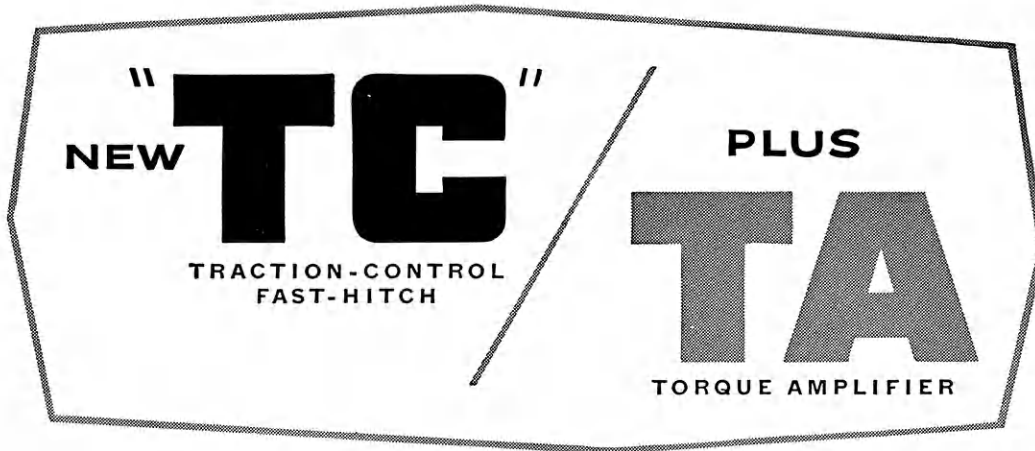
STUFFED TOYS

for that special girl
or for
little sister

College Floral

1202 Moro

Now! Two big ways 1957 IH Tractors put power to better use!



... gives you **PULL-POWER** second to none!

Say goodbye to frequent shallow-ups and shiftdowns! Here's your *double-barreled* answer to tough spots—new Fast-Hitch with Traction-Control, plus Torque Amplifier! See how this great combination of "grip and go" gives new McCormick® Farmall® 350, 450, and International® 350 Utility tractors pull-power out of all proportion to rated horsepower.

IH Traction-Control Fast-Hitch gives you continuous traction that *grows with the load!* This keeps you plowing full depth when others can't.

To give your IH tractor its second wind, just pull the Torque Amplifier lever. Instantly, without shifting, TA increases drawbar pull up to 45% to keep you plowing non-stop! This surging power-punch teamed with ground-gripping traction makes you master of the toughest plowing on your farm!

Call your IH dealer . . . he'll gladly demonstrate. Feel the "grip and go" of traction that grows with the load and the power-punch of TA. Try the new 4-furrow Farmall 450 . . . 3-furrow Farmall 350, or International 350 Utility.

See your
IH INTERNATIONAL
HARVESTER Dealer

International Harvester products pay for themselves in use—McCormick Farm Equipment, Farmall and International Tractors . . . Motor Trucks . . . Construction Equipment—General Office, Chicago 1, Illinois

Outplow them all with the "grip and go" of this new Farmall 450—pulling a new McCormick 4-furrow Fast-Hitch plow with individual spring trip beams.



NEW PILOT GUIDE
At a glance . . . Pilot Guide tells plowing depth and whether you have the right amount of weight transfer to match soil condition. Try "look-ahead" farming!

You should see what's happened to the Drill!

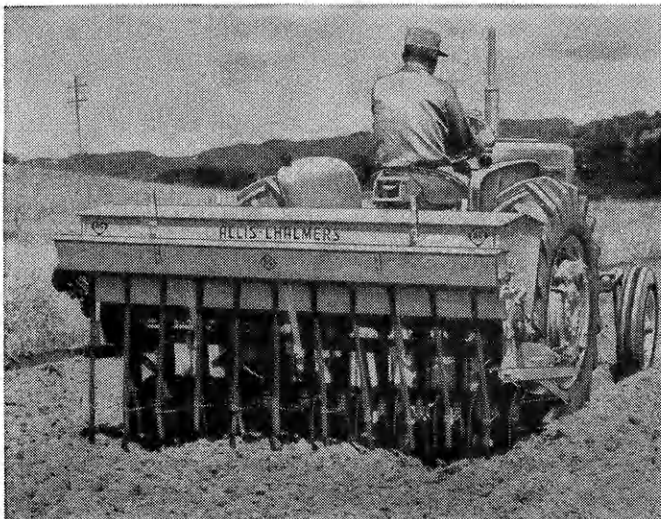


Three new and larger models are now available in 15 x 7 (8¾ ft.), 18 x 7 (10½ ft.) and 24 x 7 (14 ft.) sizes. These wheel-transported drills can be used with any make of tractor equipped with standard ASAE drawbar and remote ram, or with the SNAP-COUPLER hitch and TRACTION BOOSTER system of Allis-Chalmers tractors.

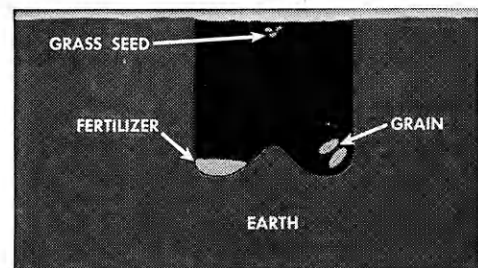
Seed and fertilizer are accurately placed in separate bands for protection against "burning."

Grain drills are a lot different from what they used to be!

Today, the seeding of small grains, beans, hay and pastures is accomplished with greater precision, speed and economy than ever before. Reason? The ALL-CROP drill — a product of Allis-Chalmers.



The popular 9- and 11-run fully mounted drills are designed for use with Allis-Chalmers tractors and some tractors of other makes.



Of utmost importance to farmers is the fact that with these more modern drills, seed and fertilizer are placed *in separate bands*... at the precise rate per acre for best results. Seedlings are able to take early advantage of needed plant food... without being "burned" in the process!

Kernels are sown uniformly — never in wasteful bunches — and much less seed is required to obtain desired plant population per acre. Lumpy fertilizer is broken up by Force-Flo agitators in the fertilizer hopper... to assure uniform distribution. Grass or legume seed can be sown broadcast or in bands, as desired.

ALL-CROP drills are available in five sizes, with choice of single or double-disc openers. Seeding capacity ranges from 20 to 75 acres per 10-hour day, depending on size of unit and condition of field.

Only ALL-CROP drills have all these advantages — plus many other new and outstanding features. Write for more complete information.

ALL-CROP, TRACTION BOOSTER and SNAP-COUPLER are Allis-Chalmers trademarks.

ALLIS-CHALMERS, FARM EQUIPMENT DIVISION, MILWAUKEE 1, WIS.

ALLIS-CHALMERS

