Yes Sir, the farmer is right. Just think of the improvements he and his son still can make in their farming practices, which are already mighty good.

Through better control of noxious weeds and crop and livestock insects and diseases; through improved land use, soil-building crop rotations, application of fertilizers, and labor saving equipment, they can increase yields and profits still more.

The many new practices available to improved farming constitute a modern challenge and promise better living—better than in the old days when, after farmers had “worn out” their land, they could “move on West” and start again on virgin soil.

Although this farmer and his son practice soil and water conservation, fertilize liberally, utilize manure from their livestock, and grow new and improved varieties of adapted crops, they see still other frontiers. Research, particularly that of the agricultural experiment stations, constantly reveals new and better methods. The use of such methods can lead to more profitable farming and better living.

Successful farmers everywhere are aiming at higher production and lower costs—through efficient practices. Without exception, these successful farmers find modern farm equipment to be an integral component of the new frontier.
How to make an exception prove a rule

Technological progress is rapid in the petroleum industry. Few processes have a chance to "grow old" on the job. Most are killed off through the combined efforts of thousands of scientists working constantly to improve everything we do, make or use in our business.

Every now and then, though, we experience a happy exception to this rule. That occurs when a new development not only meets the immediate need but also provides the right answer to situations yet unforeseen.

Twenty-five years ago last August a process known as "delayed coking" was invented. The new process made a quicker, cleaner job of converting heavy residual oil into gasoline, gas oil, and coke. It paid off spectacularly when catalytic cracking was invented and these giant new units began calling for feed. It paid off again when the diesel locomotive came along to put the heavy oil burning steam locomotive out of business.

Dr. Robert E. Wilson, chairman of the board of Standard Oil today, was the inventor of delayed coking. Almost all of the young scientists who worked with him in its development are still with Standard too, in responsible positions requiring their special skills.

Young scientists in research and engineering at Standard Oil today find it satisfying to see their creative efforts translated into valuable product and process improvements.

Standard Oil Company
910 South Michigan Avenue, Chicago 80, Illinois
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EDITORIAL STAFF
Clayton Herman .................. Editor
Ray Lippe .................. Associate Editor
Roe Borsdorf .................. Assistant Editor
Gary Yeakley .................. Assistant Editor

BUSINESS STAFF
Phillip Young .................. Manager
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Circulation
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Taking a break to admire a Little American Royal entry are Billy Bevelhymer (standing), pre-veterinary freshman from Wichita, and Janice Gaddis (sitting on fence), animal husbandry freshman from Wichita.

Billy drew the horse to exhibit at the Little Royal April 7. She has seven weeks to prepare him for the show-ring.

Each of the girls has shown horses before. In 1955, Billy showed her own horse, Skyrocket's Reflection, a five-gaited American saddle horse, to grand championship in the amateur division of the Kansas Saddle Horse Association. She got reserve in ladies' five-gaited class.

Janice took first place in the 14 to 17 age group in horsemanship and won third in the queen contest in the 1955 Kansas Western Horse Association. She will also show a Quarterhorse at the Little Royal.

Dee Follis, a 1955 K-State graduate, was last year's winner with a Quarterhorse at the Little Royal.

PHOTO CREDITS: J. R. McLeland, cover, 15; Drayford Richardson, 8; Paul Bocquin, 10, 11; Western Studios, 12, 13, 13; John Burgess, 14, 14, 15, 18; Robert Ecklund, 16, 19, 26; Ray Keen, 20.
...that appeal to
the Youthful Mind...

3-plow

“300”

Tripl-Range transmission gives 12 overlapping gear speeds from 1 1/2 to 20 MPH... full use of engine power with every implement... right speed for every PTO machine. Tachometer tells engine speed, shows proper PTO speed. "Tell-Easy" instrument panel also has speedometer, true-time hour meter, electrical fuel gauge, ammeter, engine temperature and oil pressure gauges.

Set world's record for fuel economy on gasoline at half load and varying load as well as rated and maximum loads. Also available with Powrcel diesel engine like the Case "500." Both engines have torque to pull normal load when throttled to half speed. Eagle Hitch provides 3-point hook-up of 4-plow implements without leaving tractor seat.

4-plow

“400”

Aristocrat of farm diesels! Starts directly on diesel fuel at touch of a button, runs with 6-cylinder smoothness at all speeds and loads. Powrcel controlled combustion prolongs push on pistons, provides lugging power. Six-point filtering system stands guard against dirt and water in fuel. Power steering takes the hard work out of driving.

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“500”

New Case "75" Combine cuts 7-foot swath... has long straw rack that saves seeds and grain for extra yield... spike-tooth cylinder to comb stubborn seeds out of tough heads or optional rub-bar cylinder... variable-speed fan. Shown here with new Case "300" Tractor.

You'll be really surprised when you visit your Case dealer... and see for yourself how the beauty and design of these new Case tractors match your fondest dreams of power for today's ways of farming. You'll be thrilled by their performance... speed... and handling qualities. Yes, Case Tractors are as modern as your thoughts and hopes. And—with the easy Case Income Payment Plan, you don't need all cash to buy the one you want. J. I. Case Co., Racine, Wis.
Better Living
Is Theme for 1956 Hospitality Day

by Bev Sargent

HOME Economics Campaigns for "Better Living" is the theme for the 1956 Hospitality Day, April 21. High school girls from all parts of Kansas are invited to this annual open house of the Kansas State School of Home Economics.

Open house has previously been Hospitality Days and has been held on a Friday and Saturday. This year the committee has re-scheduled activities to make open house one big day.

Because a busy schedule is planned, guests to Hospitality Day are encouraged to dress in casual clothes, including bobby socks and school shoes.

Registration will begin in the new K-State Student Union at 7:30 and will continue to 9 a.m. During registration visitors will be divided into groups and assigned guides to assist in a tour of exhibits.

Dean Doretta Hoffman will welcome Hospitality Day guests at a general meeting in the College Auditorium at 9 a.m. The winning sorority Y-Orpheum skit, "Carmen Coed," will be presented as entertainment.

Tours of exhibits are scheduled from 9:30 to 12 in five campus buildings: Calvin hall, home economics building; Anderson hall, campus administration building, which houses the home economics art department; Kedzie hall, where the guests will see the home economics journalism exhibit; the three home management houses; and Thompson hall, where the girls will see exhibits in household equipment and physics, meats, and institutional management.

The K-State nursery school will not be open to Hospitality Day visitors this year because the child welfare department is to have an exhibit in Calvin hall.

Talent Show in Nichols

Guests with reservations will eat box lunches in Nichols gymnasium during the lunch hour from 12 to 1 p.m. Other guests will be welcome to eat lunch in the Union. Everyone is invited to a talent show in Nichols beginning at 12:30.

During free time from 1 to 2 guests may return to review any of the exhibits. At 2 p.m. the annual Hospitality Day style show will begin in the Auditorium.

Theme of the show, "Candidates for Fashion," will be carried out by home economics student models, who will walk onto the stage in groups and then, in turn, will walk to the front of the platform to give close-ups of their costumes. The clothes modeled will include everything a college miss has in her wardrobe. Garments constructed in the K-State clothing laboratories as well as ready-made clothing will be used in the style show.

Clothing to be modeled includes cocktail dresses, rain coats, suits, shortie pajamas, and quilted robes.

From 3 to 4:30 Hospitality Day visitors will be entertained at teas at Northwest hall and Southeast hall, the two freshman women's residence halls.
Motion Pictures on Insect Control
Available for Showing on Campus

As part of its educational program, Hercules Powder Company—makers of toxaphene for agricultural insecticides—has produced the following informative motion pictures. They are available on loan for use by Agricultural College classes. Arrangements should be made by your instructor, giving titles desired and three alternate dates on which your class could see them.

THE ALFALFA WEEVIL AND ITS CONTROL
Shows life cycle, damage, and control methods. (12 minutes)

COTTON INSECTS AND THEIR CONTROL
Interviews with successful growers, close-ups of common insects. (40 minutes)

CUTWORM CONTROL
Habits, damage done, and recommended controls. (12 minutes)

THE POLLINATION OF ALFALFA
Close-ups of bees, showing importance of protecting these beneficial insects. (25 minutes)

THE SPITTLEBUG AND ITS CONTROL
Interviews with farmers and other authorities on control of this damaging insect. (14 minutes)

DESIGN FOR A LABORATORY
A visit to the Hercules Powder Company’s Agricultural Chemicals Laboratory. (11 minutes)

LOW-VOLUME SPRAYING
How to mix insecticides and adjust sprayer for efficient application. (14 minutes)

(All films are 16 mm. in sound and color.)
Educational Booklets and Slides Also Available.

Agricultural Chemicals Division
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APRIL 1956
This advertisement appears in AGRICULTURAL COLLEGE PUBLICATIONS
K-State Reports on

STILBESTROL EXPERIMENTS

by Larry McGhee

AN EXPERIMENT to determine the value of stilbestrol in speeding cattle growth has been completed at Kansas State college.

Prof. Drayford Richardson, in charge of the project, said there are several factors which influence the response obtained from feeding stilbestrol. Results obtained at K-State and those obtained elsewhere do not agree in all cases.

Age and weight seem to influence response to stilbestrol. It is more difficult to improve natural gaining ability of a young animal than one that is more mature.

Weight, which generally expresses maturing, is an important factor. Older, heavier animals usually respond greater, according to Richardson.

**Sex Affects Response**

Sex is another factor which affects response of stilbestrol. When fed to heifers rate of gain is usually increased. However, amount and consistency of gain seems to be greater with steers.

Estrogenic content of feed is another factor. Natural estrogens are hormone-like substances in natural feedstuffs. Amount of estrogen appears not only to vary from one kind of feed to another but also within the same feed.

Type, quantity, and quality of a ration are important, Richardson said. A greater response is usually obtained with a high-energy, fattening-type ration that otherwise meets the nutritive requirements of the animal.

Although there has been an indication that cows on pasture respond to stilbestrol, this appears to be a doubtful practice in a strictly grazing program, he said. Feeding stilbestrol to cattle being fed a fattening ration on grass may have possibilities.

Length of feeding period is another

(Left) Cuts of meats from a control lot of heifers which were not fed stilbestrol. (Right) Meat from heifers fed stilbestrol for 309 days. Meat from the animals not getting stilbestrol is more heavily marbled. Both lots were fed the same.
factor. There seems to be no benefit from feeding stilbestrol for a longer time than normal fattening periods.

Richardson said the tests indicated that stilbestrol has no beneficial effect upon digestion. In fact, there seems to be a lowering of nutrient digestibility, he said. It is logical to assume that digestibility is not a factor in the increased rate of gain. Other factors are responsible.

**More Shrink with Stilbestrol**

There seems to be a greater shrink in stilbestrol-fed animals when going to market, and in the cooler, but the difference is small. Shrinkage data is incomplete, Richardson said.

Feeding stilbestrol in a fattening ration has little beneficial effect upon carcass quality. Less marbling in meat of stilbestrol-fed animals tends to lower the grade. Normally, with increased rates of gain, a carcass would be expected to grade higher.

A feeder must get one-tenth pound increase in rate of gain and increased feed efficiency to pay the cost of adding stilbestrol to a ration. According to the test, the only economically de-

(Continued on page 21)
LIVESTOCK AUCTIONS

Are Popular Markets for Kansas Farmers

by Gary Yeakley

BUYING and selling livestock through auctions is gaining popularity as a method of marketing cattle, sheep, and hogs, according to Jack Beverley, owner of Beverley Livestock auction at Salina.

A livestock auction is a meeting place for buyers and sellers of livestock. Most auction markets are privately owned. Generally, livestock are sold on regular days each week. Normal order of sale is usually hogs, bulls, milk cows, calves, and other cattle, respectively. Other animals make up only a small percentage of the total livestock sold at auctions.

Methods of Operation

There are two principal methods of operating auction sales. At some auctions livestock are sold in the order unloaded. Another method is to sell livestock in the order consigned.

Personnel of a livestock company ordinarily include auctioneer, ring man, weigher, office workers, and yard men.

A ring man shows livestock in the ring and takes bids. A weigher records weight of each animal immediately after it has been sold. Correct weighing is a necessity for any livestock auction company, Beverley said.

Yard men help load, unload, feed, and transfer livestock. The office crew handles money, books, tickets, and receipts of the company.

A commission man plays an important role in a livestock auction company. He looks at livestock when received and estimates what they will bring on the market. If the animals do not bring a suitable price, a consignor can then say "no sale" to the...
auctioneer and retain his livestock. He must declare "no sale" immediately after bids have closed.

Some auction companies give the seller a guaranteed price. Bids are started at this price and, if there are no higher bids, the company pays the consigner the guaranteed price.

Cost of selling through auctions is relatively low, Beverley said. Some companies charge a fixed rate for each animal sold, while others charge a percentage of the sale price. Two percent is the standard commission fee at most auctions.

**Competition Is Keen**

Competition between companies and increased use of auctions for marketing livestock have increased the number of services to benefit buyers and sellers. A common service is feeding and watering livestock until time of sale. A company must maintain unloading chutes and holding pens to handle animals.

In most auctions livestock are unloaded by yard men and transferred to holding pens to be fed, watered, and tagged for identification. For selling, animals are moved from the holding pens to the auction arena. They are shown by the ring man during bidding. After bidding closes the animals are weighed and put in holding pens to be claimed by the buyer after they have been paid for.

Many companies require disease testing or vaccination before a consigner may unload his animals. Buyers are protected by a company that (Continued on page 21)
NEW STYLES will perk up the K-State campus this spring, according to fashion experts at Stevenson's and Cole's Manhattan stores.

Lassies will eye their muscle men in a new array of togs leaning toward semi-Ivy league styles with comfort as a keynote. Women will follow trends in material and basic styles, but they will retain individuality.

Formal gowns for girls seem to be shrinking from both ends—lower necks and a higher hemline. Formal gowns will be ballerina length in pastel tints with black and white. Gown lines will probably retain a princess look, with close-fitted bodice, low neckline, and full skirts with yards and yards of net. Later in the year sheath formals will pick up in popularity. A few may be seen earlier in the season.

For suit-minded females, slimmer styles with box-type coats are becoming popular. Suits will be mostly linen in a wide selection of colors. Biggest competition to linens will be "drip-dri" fabrics. These fabrics are washable and require no ironing, making them popular with a busy coed.

Suits for important occasions are being made of imported Italian silks, with beige and navy as favorite colors. Imported fabrics are more expensive but offer eye appeal, good taste, and lasting quality. Almost as popular as full-skirted suits will be suits with a sleek, streamlined sheath outline.

Italian Look Casual Wear

In casual wear the Italian look will run closely behind Bermuda and Jamaican wear. Italian T-shirts will be dark, with slit necks and three-quarter sleeves. Bermuda shorts with tapered legs will be prevalent in dark plaids. Material will be mostly cottons and silks, with drip-dri’s moving into the field.

Combination play suits will be popular women’s play clothes. These are a blouse or shirt, shorts, and matching skirt that can be shed. Jackets will be available to match play suits. Material will vary in suits from solid colors to prints. Lighter colors and prints will dominate.

Italian styles are moving into the limelight in ladies’ blouses and T-shirts. T-shirts will feature dark multi-colored stripes and roll, or slit necks. Sleeves will vary between three-quarters and short. White and plain-colored blouses will continue to be popular, but will be worn predominantly with suits.

Italian T-shirts will be worn with Bermuda or Jamaican shorts, or with Toreadors. The slimmer Italian look is expected to take over.

Clothing prices will not change greatly; however, for a spendthrift there will be a wide selection of expensive imported creations.

Male Fashions Change Less

Masculine fashions will not be as individualistic as feminine. Men are not as apt to go off on a tangent stylewise as females. Male fashions do not fluctuate as widely.

Formal wear (clothes to be worn at parties where drinking is done from
glasses instead of from bottles) will be, for the most part, regular single-breasted tux in black or midnight-blue with matching accessories, suspenders, and black tassel loafers. Also for formal wear is a white or pastel-tinted, single-breasted dinner jacket to wear with black or midnight-blue trousers, with tassels on loafers to match the jacket.

Campus cats who are proud of their knees may be seen at formal brawls wearing Bermuda shorts formal wear. This outfit will consist of a white or pastel dinner jacket with black or midnight-blue Bermuda shorts with matching socks and accessories.

Ivy league suits will be three-button, narrow-lapel in tweed, check, worsted, and Dacron wools. Colors will depend on individual taste and will run the gamut from light to dark.

Palm beach suits will be available in brighter colors this year. Most material will be 100 percent tropical worsted, or 50 percent wool and 50 percent Dacron tropical worsted. Ivy league styles will come into prominence later in the year to compete with double-breasted suits, which should be popular by late '56 or early '57.

Male fashion experts are stressing Bermuda shorts for men. This spring men will wear the shorts as part of their casual wardrobe. Shorts will be made in a variety of colors to be worn with short-sleeved sport shirts. Coats may be worn with shorts to make a casual sport suit ensemble.

Shirts will be plain-colored or print. Some embroidery will be featured on many plain-colored shirts. Necks may be worn open or closed.

Slacks will be in style for those who don't have enough hair on their legs to be proud of. These may be either light or dark. They will be worn with T-shirts or short-sleeved shirts.

Belts, socks, and shoes should be worn with appropriate matching or contrasting clothing. Stretchy and cloth belts are replacing leather belts.

Popular coats will be the three-button, center-vent front, with either patch or flap pocket. Fabrics will vary, but loose-weave in a spot or fleck style will be in demand. Colors will be light and sily.

To be really smooth takes an eye for color and color combinations. The old rule of not mixing browns and blues still goes; they just don't mate.
The centerpiece of the Royal-Suffolk sheep of dyed sawdust is given to individual excellence in animal judging and showing. No consideration is given to personal achievements during the seven-week fitting period in preparing the sheep for the Royal show. Even students who have raised the animals show them in the best condition possible. In 1924, 175 students competed in the fitting and showing of their sheep.

### Little America

The Little Royal is sponsored by the American Royal, and the competition is held during the spring of each year. It is an event for students to show off their poultry and livestock. The show is held in Kansas, and admission is by ticket only.

**College Pays Expenses**

The college pays expenses and students judge the animals. Judges and students assist in judging the animals, and the college pays expenses.

### Discounted Five Years

The Little Royal was founded in 1924 and is held annually in Kansas. It is an event for students to show off their poultry and livestock. The show is held in Kansas, and admission is by ticket only.

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**Little America**

More Than 175 Students Competing

The 28th annual Little America Royal will be April 7 in Kansas.
animal, because animals to be shown are drawn by students.

18 Classes in 1936

In 1936 more than 100 contestants showed 18 classes of livestock. The Little American Royal is now the only non-athletic, student-sponsored attraction held in the Field House.

Arthur D. (Dad) Weber, Dean of Agriculture and internationally known livestock judge, said, "It is with keen anticipation that we look forward each year to another Little American Royal. This outstanding event combines all the desirable features of the almost countless extra-curricular activities available to undergraduates at an institution such as ours.

"First and foremost, perhaps, is competition, that incomparable incentive to superior achievement. Rivalry is friendly, yet strong, and..."
develops steadily through the preliminary stages until it reaches a thrilling climax with the selection of the champions. Persistent effort, patience, technical know-how, and a love for and understanding of animals—sometimes inherent but usually acquired through fitting and showing experiences—constitute the price paid by winners for top recognition.”

Dean Weber said valuable administrative experience may be had by students through the managerial requirements and responsibilities which must be met in preparation for the show.

**Comedy Introduced in 1935**

Comedy was introduced to the Royal in 1935 by a special fitting and training class. A mixed group including a donkey, turkey, hog, dog, and goat was shown by college students. Incidentally, the donkey won the division. Laughs have been provided the last two years by a clean-up man and his assistant, who make the rounds of the arena with a wheelbarrow, shovels, and brooms.

A recent addition to the program has taken the form of professional trick riding and roping stunts. In the 1955 Little Royal Jimmie Adams put on a fancy roping and riding exhibition.

**Centerpiece Is Tradition**

Several traditions have become attached to the 28-year-old Little Royal. A centerpiece, an annual feature of the show, is designed and laid out by members of sponsoring clubs. The centerpiece, made of dyed sawdust, has been a highlight of the showring floor. Another tradition is the grand entry, a parade of cattle and horses at the show’s opening.

In 1941, steps were taken to improve the Little Royal. An outside judge placed the Dairy show for the first time. Also, first- and second-place winners in individual classes showed for breed championships. After the breed champion was selected, the second-place winner was given a reserve ribbon. In the contest for grand championship all champions and reserve champions of each breed were brought into the ring.

More than 2000 students, including girls, have shown stock. Most students believe reward comes not from the trophies won, but from practical experience gained.

Professor Floyd W. Atkeson, head of the Dairy Husbandry department, stated, “I am deeply interested in the Little American Royal livestock show primarily because of the benefits which the students, individually and collectively, derive from putting on such a show. A student learns how to fit and exhibit animals and does so under competitive conditions somewhat similar to a professional showring.

**“Student-managed Affair”**

“The Little Royal is strictly a student-managed affair. Without students competing in classes for prizes, there would be no Little Royal. However, the organization, management, and general direction of the event require a great deal of well-directed effort and offers the student a wonderful opportunity to develop his ability along this line.”

Professor Atkeson added that a by-product of the event is an opportunity to present college livestock to the public under favorable conditions. Several thousand visitors, including businessmen, farmers, and ranchers, come to Manhattan to see the livestock on dress parade. This is good public relations and stimulates interest in the college.

The dairy division takes its turn during the 1955 Little American Royal. More than 2000 students have shown stock.
Bob King is Vice President of the Winnebago Chapter of the Future Farmers of America. Bob is also an honor student in high school and co-captain of his football team. We are proud that this outstanding young man is a MoorMan feeder.

"39 pigs fed MoorMan's Creep Concentrate averaged 53 pounds at weaning"

"MoorMan's Creep Concentrate pellets got my 39 spring pigs off to a fast start and helped them pile on those early economical gains that cut my production cost to only $8.69 per 100 lbs.," says Robert King, Winnebago County, Illinois.

"I have to keep accurate records on FFA projects so I know exactly how much it cost to market my pigs. When I weaned my pigs at 8 weeks they averaged 53 pounds. They were in excellent health... firm and well fleshed. My grandad, Frank F. King, says starting my pigs on MoorMan's Creep Concentrate meant at least 15 pounds additional weight per pig at weaning time.

"After weaning I changed the pigs to MoorMan's Pig Mintrate. Then at about 90 days I changed them to MoorMan's Mintrate 45 for Hogs.

"I marketed 39 hogs when they were 5 months and 11 days old. The average weight was 211 pounds. My FFA records show I used:

<table>
<thead>
<tr>
<th>Percentage of Mix</th>
<th>Price per Bushel</th>
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<tbody>
<tr>
<td>MoorMan's Creep Concentrate</td>
<td>$38.60</td>
</tr>
<tr>
<td>MoorMan's Pig Mintrate</td>
<td>$86.50</td>
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<tr>
<td>MoorMan's Easy-Way* Wormer</td>
<td>$10.65</td>
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<tr>
<td>MoorMan's Hog Mintrate 45</td>
<td>$86.50</td>
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<tr>
<td>21 bu. oats @ 6.2c</td>
<td>13.02</td>
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<tr>
<td>381 bu. corn @ $1.26</td>
<td>480.06</td>
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Total Feed Cost $715.33

"If you spread the above cost over the 39 hogs averaging 211 pounds, it makes my total feed cost only $8.69 per cwt. ... my out-of-pocket cost for MoorMan's, including Wormer, only $5.70 per head, or $2.70 for each 100 lbs. of pork produced ... and, we think that's good."

MoorMan's Creep Concentrate is a combination of vitamins, minerals and proteins, fortified with a generous supply of antibiotics. It is formulated to help you wean bigger, stronger pigs. Insures low production costs. Available in either pellet or meal form.

If you'd like to wean heavier litters and produce pork for less, see your MoorMan Man. Or, write Moorman Mfg. Co., Dept. 064, Quincy, Illinois.

MoorMan's* Since 1885-71 years of friendly service

CREEP CONCENTRATE FOR BABY PIGS

- ONE OF 10 MINERALIZED PROTEIN AND VITAMIN CONCENTRATES THAT HELP LIVESTOCK AND POULTRY MAKE BETTER USE OF HOME-GROWN FEEDS.

LAMB FEEDING
Is Big Business for Wabaunsee, Kansas, Farmer

by George Atkeson

IN ORDER to make lamb feeding a profitable enterprise, feeders must buy right, feed right, and sell right, says Lawrence Mertz, Wabaunsee, Kansas, feeder.

Mertz is carrying on a 50-year family tradition of lamb feeding on his 1300-acre farm near Wabaunsee.

He spends about six months raising grain for lambs, and feeds for about six months. Next year he plans to install an irrigation system to assure good crops.

Buys Southwestern Lambs

In September Lawrence and his brother, Harold, usually go to Texas or New Mexico to buy 2,000 to 2,500 head of Rambouillet lambs. The number bought depends on amount of feed on hand. He prefers fine-wool lambs from the Southwest because they usually don't have as much flesh. His theory is that a feeder can put cheaper gains on lightweight lambs and make more profit than if he starts with heavy lambs.

In early days of lamb feeding Mertz used a bunk and panel method. Today he has a self-feeding system. All grain and bundle feed is ground, mixed, and conveyed to self-feeders by machinery.

Lamb Feeding Operation

For several years Mertz has kept a ewe flock, but since 1923 he has operated on a lamb-feeding basis. He feeds about 25 pounds of grain in 75 days to each lamb. He likes to start lambs off easy by feeding alfalfa hay and headed bundle feed for 30 to 40 days. Then he leaves the grain on the fodder bundles. Most lambs will eat enough roughage to get one-half to two-thirds pound of grain a day.

Each group of lambs is inspected early in the feeding period to see if they need to grow more before being pushed with grain. This year Mertz stopped feeding bundle feed in February, and is now using an alfalfa hay and grain mixture. He said a constant supply of fresh water and clean dry lots are important factors in feeding and management.

This year he divided the lambs into two different market groups. The first group was sheared the first of January to go to market early in March. A second lot was sheared five weeks later to be marketed in April.

Gets Number One Pelt

He likes to hold the lambs long enough after they have been sheared to get a number-one pelt, which has about one-half inch staple length fleece. This takes 50 to 60 days and is during a period when lambs are being
pushed hardest in the feed lot. He thinks shearing wool not only gives a double profit, but keeps sheep cleaner and in better appearance.

He expects each lamb to produce about seven to eight pounds of wool besides a gain in weight. He tries to market lambs weighing from 105 to 110 pounds. He usually sells in early May. This year he is trying for better markets in late March or mid-April due to competition from California-fed lambs on later markets.

Mertz believes Midwest feeders face three main problems: (1) Price is too high if good-quality feeder lambs are bought. (2) Price of feeders and price received for fat lambs does not leave much margin. (3) A feeder has little voice in the price he receives.

Stanley Larson, a senior in agricultural education from Effingham, is winner of the $100 Edwin Lee Holton award as the outstanding senior in education at K-State. He is the son of Ludwig Larson of Effingham.

Salesman: "This model has a top speed of 100 miles per hour, and she'll stop on a dime."

Prospect: "What happens then?"

Salesman: "A little putty knife comes out and scrapes you off the windshield."

College is like a laundry. You get out of it what you put into it, but you'd never recognize it.

If Adam came back to earth, the only thing he'd recognize would be the jokes.

"I quit my acting career because of ill health."

"What was the trouble?"

"I made people sick."

Little girls want an all-day sucker. Big girls want one just for the evening.

To raise and feed sheep a feeder needs to know how to judge them. The K-State judging team is getting instructions from Prof. Don Good.

They cut down the old apple tree
That blossomed each Spring by the door.
And Rover has missed it ever since
Though he never missed before.

Student nurse: "Doctor, every time I bend over my patient to listen to his heart, the heart beat increases. What should I do?"

Doctor: "Button your collar."

Kansas Dairy Improvement Program

Kansas Artificial Breeding Service Unit
"Six Years of Dependable Service"
Serving 71 Kansas Associations
6—Dairy Breeds—6
240,000 Cows Bred

Department of Dairy Husbandry Kansas State College
IS THE sunflower really worthy to be the state flower of Kansas? This question has been asked more than once by a farmer thinking of the flower as a field pest or by a traveler thinking of it as a "pretty weed."

Some people doubt the adaptability of the sunflower in Kansas and have also asked the question. They base their doubts on a certain degree of unsuccessful cultivation of the plant.

In a test at the K-State experiment station last year, four improved dwarf sunflower varieties were grown. Best variety in this trial was Mennonite. It produced about 300 pounds of seed per acre. Seed quality of varieties tested was poor and oil content low because of a high ratio between seed-coat and seeds. Conditions for sunflower seed production were extremely severe during the summer of 1955. Prolonged drought and low rainfall during the growing season were unfavorable for seed set, according to Ernest L. Mader, K-State agronomist.

Insect damage to test plots was also severe. Leaf web worms completely destroyed leaves of many plants. Grasshoppers fed on plants and ate the interior of many seeds before the crop was harvested. Use of DDT in early July killed many insects, but yields were reduced by insect damage. Results from this study are similar to those of an earlier trial, Mader said.

Sunflowers Not Suited

It might be assumed that the sunflower is not suited to Kansas conditions. This is not altogether a true assumption, he said.

Cultivated sunflowers used in the trials were not a representation of the state flower of Kansas. There is a difference between those plants and wild sunflowers which are the Kansas flowers.

Wild sunflowers are branched and produce numerous small heads, while cultivated varieties grow erect and produce a single head at the end of the stem. The head or disk of a cultivated plant measures from 3 to 24 inches, while wilder varieties usually have a smaller head.

Statistics on production of commercial sunflower seed show that the most important states furnishing a supply are California, Illinois, and Missouri. In most of Kansas, cost of raising sunflowers is as high as for a crop such as soybeans, corn, or sor-
ghum. Return per acre from sunflowers is far below that of the above-mentioned crops. If sunflowers are planted anywhere in Kansas, chances are that other crops can be grown that will give higher returns, Mader said.

The sunflower in Kansas, it would seem, is not a credit as the state flower. Why, then, has this so-called "pretty weed" been set in such high esteem?

This question can be answered by turning to 1940. Kansas was then part of the great Southwestern dust bowl. Sunflowers took possession of wind- and water-eroded fields and pastures. Its extensive branched stems protected the soil until other vegetation could be established. During this period the sunflower won its place in the fields of Kansas as her state flower.

Stilbestrol
(Continued from page 9)

Desirable place to use stilbestrol is in a fattening ration, Richardson said.

Present tests indicate there is no stilbestrol residue in the meat or intestinal tract of slaughtered animals. The K-State results show that animals used for breeding stock should not be fed stilbestrol. However, there is no danger from feeding a small amount.

Stilbestrol in fattening rations can be expected to increase rate of gain, Richardson said. Much has been learned about using stilbestrol; however, further research is necessary to evaluate its use in feed and effect upon carcass quality, he said.

Livestock Auctions
(Continued from page 11)

-can guarantee the livestock to be disease free.

A livestock auction market is important because it provides a local market and saves consigners expense of shipping to a terminal market. Also, from a buyer's standpoint an auction market supplies stock for local slaughterers and farmers.

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IRRIGATION DAM
In Iraq Is One of
World's Largest

by Roe Borsdorf

ONE OF the world's largest dams being built for irrigating is the Dokan dam in Iraq, according to Khairi Tammo, a K-State student from Baghdad.

Tammo is majoring in horticulture with a specialty in pomology. He supports himself in college by working in the greenhouse. He also has an educational grant from his government.

The dam will build water of the Lesser Zab river into an artificial lake covering 104 square miles, with a storage capacity of 1,500 billion gallons of water. The dam will have a sweeping crest of 1,300 feet and will be 385 feet high. It will be one and one-half times as high as Boulder dam in Colorado.

Completion of the dam is scheduled for spring of 1956. Apart from construction of the dam, barrages and a network of channels are being built to provide water for irrigating land of small farmers. The lake will hold enough water to irrigate approximately two thousand square miles of land.

Regulators will be constructed to control water passing into irrigation channels and to provide drainage schemes. A soil analysis and land classification program is used to measure the amount of water needed. Crops are studied to determine varieties best adapted. Crops to be irrigated are dates, citrus fruits, rice, barley, and wheat.

Other uses of the dam will be to control floods and to generate electric power. Potential power is estimated at 143 thousand kilowatts, which is enough to provide light and power for a city eight times the size of Baghdad, with a population of one and one-quarter million.

To generate electricity, a power station will be constructed at the downstream toe of the dam. The dam will be equipped with five steel-lined intakes, each 12 feet in diameter, through which water will be piped at high pressure to the power house turbines, Tammo said.

The dam is of arch-type design that requires a narrow gorge or rock on either side strong enough to withstand the pressure of water it supports. Abutments will carry the bulk of the load in the upper part of the arch. In the lower part the load will be carried by beams in the river bed.
Here's a really exciting new rake from NEW IDEA

New mounted parallel bar rake fits 24 different makes and models of tractors, makes fluffy, quality windrows fast.

This is a rake that will really speed your haying the quality way — an all-new addition to the New Idea line of hay tools.

Unique in its field. Brand new — the only mounted parallel bar rake that fits 24 different makes and models of tractors. Because it lifts, it maneuvers easily.

Cuts raking time. Rakes at higher speed with less leaf shattering. It can cut raking time almost in half. This is partly because this unusual new tool moves hay from swath to windrow with half the forward motion. A double driving sheave provides a choice of speeds to accommodate variations in ground conditions or tractor PTO speeds.

Makes fluffy, quality windrows. This new rake makes uniform, bunch-free windrows; your hay gets even curing. Puts leaves inside windrow and stems on outside. Handles hay gently in a smooth, lifting, rolling action. Also makes unbroken windrows on corners, so baler can operate without interruption.

This new rake really makes quality hay the New Idea way.

Watch for the arrival of this unique new rake at your New Idea dealer's. Write today for complete facts in new literature.

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NEW IDEA FARM EQUIPMENT CO., DIVISION EGO DISTRIBUTING CORP.
Dept. 1826, Coldwater, Ohio

April 1956
More Than 1200 Future Farmers Enter

Judging and Farm Mechanics Contests

Dates for the 33rd annual Kansas high school vocational agriculture judging and farm mechanics contests will be April 30 and May 1 at Kansas State College, Manhattan.

More than 1,200 Future Farmers of America from some 140 chapters over the state are expected to compete in the contests and to participate in the annual meetings of the Kansas association of Future Farmers of America.

Larry Figgs, Effingham, state FFA president, will preside at the FFA meetings and the annual banquet the final night. Other FFA state officers are Dean Ebel, Wamego, vice-president; Loy Reinhardt, Chanute, secretary; John McComb, Washburn, treasurer; Manuel Bruch, Kingman, reporter; and Ray Drumright, Harper, sentinel.

Contests will be carried out this year in the same manner as last year. The schedule, and the men in charge:

Feeds Illustrated, a trade magazine of the feed industry, has presented Kansas State College with $1,600 for a four-year scholarship to a freshman in the feed technology curriculum this fall.

The scholarship will be awarded $400 a year to the student selected for it by the general scholarship committee of the college.

Dr. John A. Shellenberger, head of the K-State Department of Flour and Feed Milling Industries, said that his department now has more than 20 such scholarships.

Grandma was giving the recent bride a heart-to-heart talk.

"Child, I hope your lot's going to be easier than mine," she said. "All my wedded days I've been carrying two burdens—Pa and the fire. Every time I've turned to look at one, the other has gone out."

The little moron's watch had stopped and he tried to find the trouble. Finally, he took the back off, went into the works, and found a dead bed bug.

"No wonder it doesn't work," he said. "The engineer's dead."

dairy, Monday morning, G. B. Marion; animal husbandry, Monday afternoon, Don Good; poultry, all day Tuesday, T. B. Avery; agronomy, all day Tuesday, E. L. Mader. C. O. Jacobs is in charge of the farm mechanics contest, which takes two days.

Again this year, the state dairy products judging contest will be held Monday morning under the direction of W. H. Martin. While the results will not count in the contest totals, the champion team will represent Kansas in the national FFA contest at Waterloo, Iowa, in October.

The Manhattan chamber of commerce will be hosts to the FFA delegates and team members at the annual banquet Tuesday night, at which the contest winners are announced.

There are now 212 FFA chapters in the state, with a membership of more than 7,500 farm youth.

When girls are little, they are all like dolls; when boys are little, they are like soldiers. When they grow up, the girls want the soldiers and the boys want dolls.

A small girl was studying a fashion magazine.

"Mummy," she said, "why do they always make pictures of ladies who are not quite ready?"

When a motorist who had crashed into a telephone pole and had torn down the wires recovered, his hands were tightly clutching the wires.

He opened one eye and peered at them. "Thank goodness," he exclaimed. "It's a Harp."

Hank, with a terrific hangover, went out to the barn at 5 a.m. to start milking and a long day of chores.

Said the first cow: "Brother, you look terrible; the circles under your eyes hang down to your knees."

"Yeah, I know it, and I gotta work at these durn chores 'til 7 o'clock tonight."

"Well, I'll do all I can to help," volunteered the cow. "You just hang on tight and I'll jump up and down."
Today's farmers are looking for new efficiency — engineering that saves crop quality, tractor power and dollars. That's the kind of engineering behind these Allis-Chalmers hay and forage machines.

The cut-and-throw cylinder of the Allis-Chalmers Forage Harvester, for example, is the key to big tonnage with low power requirements. It is the heart of a machine that makes man power, tractor power, time and feed crops all go farther. Spiralled, cupped knives cut and throw the forage directly to wagon or truck.

Exclusive blow-and-throw fan gives the Allis-Chalmers Blower big capacity for power unloading wagons. Fan blades are wide and cupped to blow silage and grain fast through 9-inch pipe.

Roll-up compression in the ROTO-BALER saves both tractor power and crop loss . . . provides big-capacity haymaking. The ROTO-BALER makes the only round buckle-proof bales with leaves sealed in . . . weather sealed out . . . a joy to handle and feed.

In the Allis-Chalmers power rake, selective control of reel speed and direction provides raking and tedding action that handles hay gently at higher field speeds. Here's a rake with gear-shift control and seven outstanding performance features.

These Allis-Chalmers machines provide weather-safe feed. They beat delays that can destroy the feed value of a crop.

Here is Allis-Chalmers Engineering in Action . . . big-capacity, efficient day-in-day-out performance in hay and forage equipment that is rapidly becoming the first choice of power-wise farmers everywhere.
Students often find it difficult to spend time in outside reading when they have studies but it is very important to know what is happening in the rest of the world.

Keeping up on new things in agriculture will give a student a better knowledge of happenings outside his locality.

A few minutes spent in the reading room in Waters Hall can give a student information on current topics in the world of agriculture.

—Phillip A. Young

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Ag Short Courses
For Foreign Students

One hundred seven students representing 22 foreign countries attended Kansas State College during 1955 for special short courses in agriculture.

According to William F. Pickett, K-State liaison officer for foreign agricultural affairs, each of these persons was on the campus on an average of 27 days each.

The countries represented were Argentina, Australia, Bolivia, Brazil, China, El Salvador, Germany, Haiti, India, Iran, Israel, Japan, Korea, Lebanon, Norway, Pakistan, The Philippines, Spain, Sweden, Thailand, Turkey, and Yugoslavia.

Pickett added that 34 foreign students from 10 countries were regularly enrolled at the College either for the spring or fall semesters.

These students came from Cyprus, El Salvador, Ethiopia, Haiti, India, Iran, Pakistan, The Philippines, Thailand, and Turkey.

A Tasty Cup of
COFFEE
makes that break complete
ENJOY YOURS at the CANTENE
South of the Campus