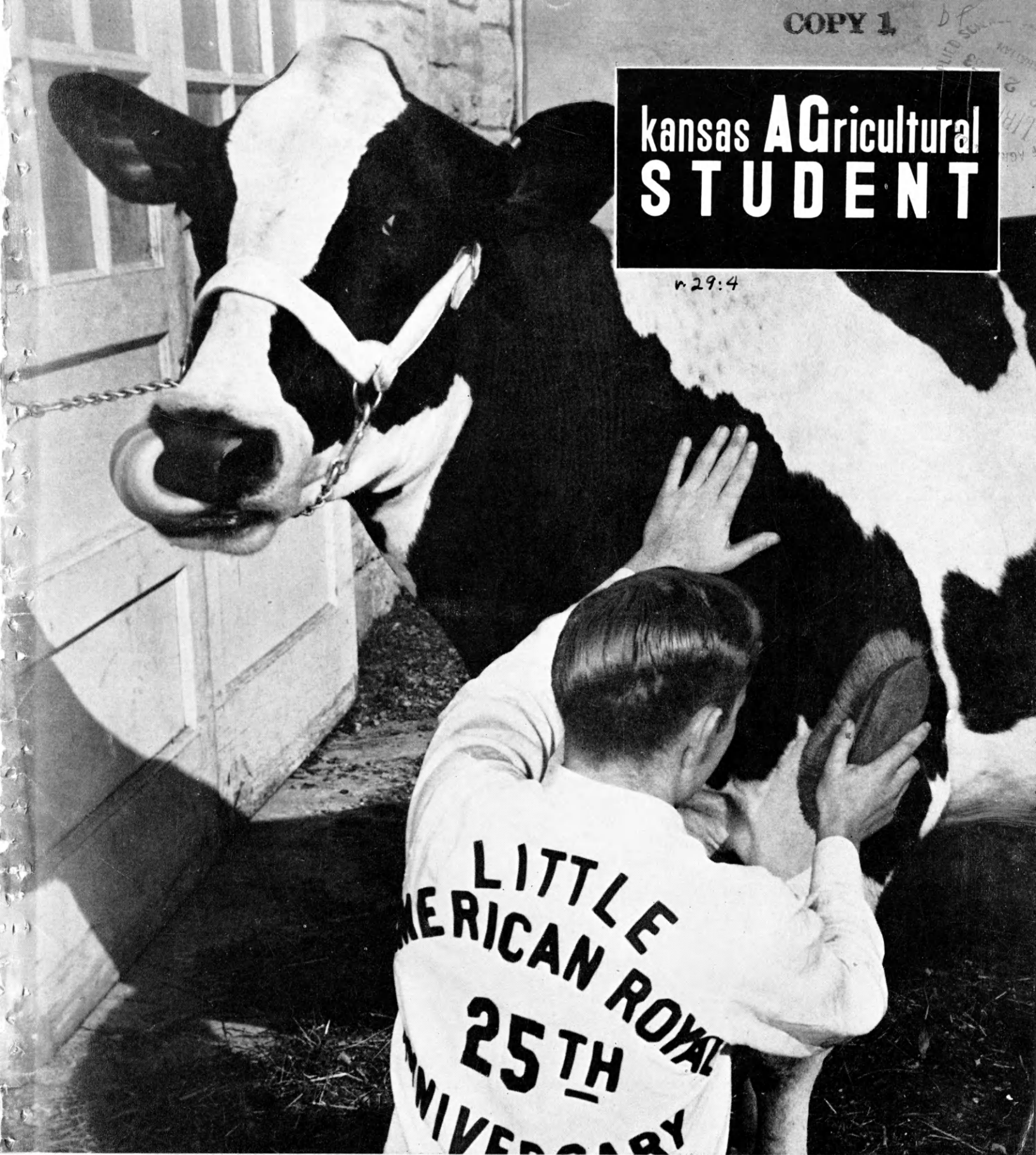


kansas **AG**ricultural  
**STUDENT**

v. 29:4



Royal Silver Anniversary



# IF YOU WANT FACTS!

**... here are some worth talking about**

People often ask if conservation farming pays and, if so, how much?

You can answer an emphatic "yes" to the first part of that question. As to the second part, there's plenty of "how much" evidence.\* Take this sample:

In Illinois they've studied the subject for years. All the farms studied showed a better net income after a good conservation program had been put into effect. Among a group of central Illinois farms, those where the best conservation practices were followed returned, as a 5-year average, \$6.65 an acre more than similar farms where good soil management was not applied. On a 160-acre farm this extra net income would total more than \$1,000 a year. Farms in other parts of the state showed similar gains from soil conservation practices.

Or take another example—on land that only a few years ago was eroded and worn down, but now has been built up through pasture improvement:

A good grass-legume mixture produced 435 pounds of meat an acre. With beef or lamb at \$28 per hundredweight, that's a gross income of \$122 an acre.

A farmer can make money on production like that, and our American farms are full of similar stories—stories worth retelling and worth repeating right out **on the land.**



\*All figures from published records.  
Reprints of this message available on request.

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Signed.....

Address.....

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# THE KANSAS *Agricultural Student*

Vol. XXIX

March, 1953

No. 4

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## ON THE COVER

**A**G STUDENT photographer  
Dick Steffens caught Leonard  
Slyter fitting his animal recently for  
the 25th Little American Royal.  
The result was this unusual picture

with the cow's tongue curling up into her nostril. Leonard is a sopho-  
more in Agricultural Education. Some 150 students, like Leonard,  
began daily trips to the Beef and the Dairy barns February 7th after  
drawing for College animals to show. For seven weeks they have  
worked on the animals for the show, which will be March 28th.



# Editorial . . .

**Y**OU ARE NOW looking at the largest issue in the history of the Kansas Agricultural Student magazine both in number of pages and in circulation. Three thousand copies of this 48-page issue will find their way to many parts of the United States, to every corner of Kansas, and to each Ag student's room.

It is appropriate that this, the largest issue of the Ag Student ever published, be dedicated to the Little American Royal on its silver anniversary. For this year is a milestone in the development of the Little Royal.

Nowhere can you find a student-managed show which is run so efficiently. It is these continued high-quality shows year after year that have made the Royal a tradition at K-State. Not only do students run the show like professionals, they also fit and show College animals with professional skill.

Ag students naturally want to put on a good show and try to win as many ribbons as possible, but since the beginning they have maintained that the practical experience obtained from showing an animal was far more important than all the ribbons. The Little Royal has been a success because students have taken an in-

terest in it and because it gives them practical experience in fitting and showing cattle.

Such success is a tribute to the School of Agriculture for training students capable of staging such a show. Without high-quality instruction, such a show could hardly be staged successfully. But K-State has this combination of high-quality instruction along with abundant opportunities for practical experience. Such a combination is hard to beat.

Proof that the Ag School educational program is successful lies in the fact that there are K-State men holding top positions in every branch of Agriculture. Many of the showmen who have shown in the Little American Royal, for example, are now among the nation's top stockmen. This is no mistake, for the Ag School strives to give students a balanced education to better meet their needs after college.

We staff members on the Ag Student are happy to salute this important educational feature of the Ag School year—the Little American Royal. Its achievements have been many in the first 25 years of its history but the next 25 years are sure to bring more and greater achievements for this rich Ag School tradition.—df

## Photo Credits

**D**ICK STEFFENS, cover, page 2; News Bureau, page 4; Dick Steffens, page 8; Dick Fleming, page 9; Dick Steffens, page 10; Building and Repair, page 11; K-Stater magazine, page 12; Dr. Hubert Schmidt, Texas Agricultural Experiment Station, page 13; Dick Steffens, page 15; KSC News Bureau, page 16; Nick Kominus, page 17; Dale Evans, pages 18, 19; Kansas Agricultural Experiment Station, page 19; Prof. Howard Bradley, page 20; Roy Freeland, page 21; Stan Creek, page 21; Dick Steffens, page 22; Manhattan Mercury-Chronicle, page 23; Floyd J. Hanna, page 23; Stan Creek, page 24; Floyd J. Hanna, page 25; Kansas Agricultural Student, page 26; Floyd J. Hanna, page 27; KSC News Bureau, pages 28, 30; Kansas Crop Improvement Association, page 32; and Floyd Hanna, page 43.

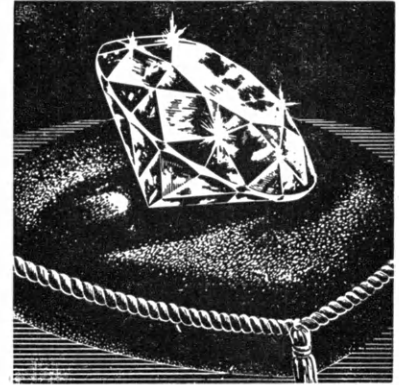
DIAMONDS

WATCHES

JEWELRY

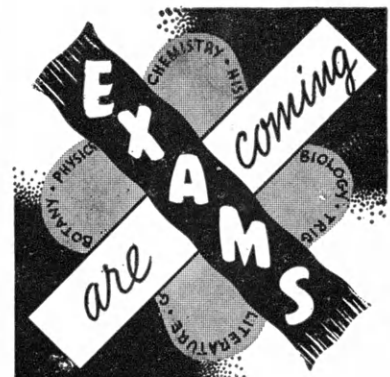
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# Chit Chat

By Dean Clyde W. Mullen



Dean Mullen

**A**BOUT THE NEW curriculum in Technical Agronomy that will blossom out in the next College catalogue—

The curriculum is exactly what the man said, "technical," including for all students a total of 15 hours of Chemistry, General Physics I, Plant Physiology, Scientific Report Writing, and General Microbiology.

## Choice of Three Options

Then, if a student chooses the Soil Science option, he will proceed on through Analytical Geometry and Calculus, 12 hours; General Physics II; Elements of Statistics; and more Chemistry.

If he chooses the option in Applied Agronomy, he picks up advanced courses in soils and crops, General

Economic Entomology, Plant Pathology, and Production Economics. He may become a soil conservationist, either under this option or under the curriculum in Agriculture with a major in Agronomy.

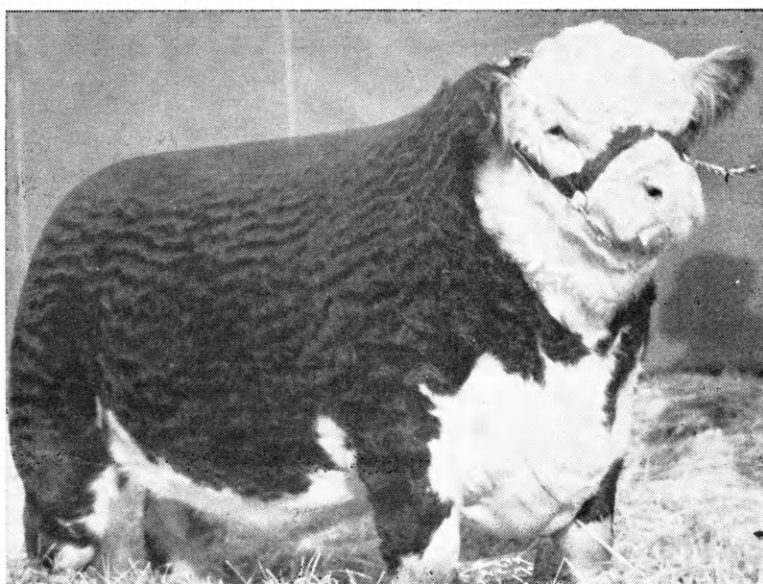
The Crop Science option guides the student through 12 hours of advanced courses in crops, Soil Management, Elements of Statistics, and Production Economics, together with entomology and plant diseases.

Probably, some of the students who will pursue the curriculum in Technical Agronomy will be discovered by Dr. Olson toward the end of the sophomore year. They will be lads who show an unusual interest in, and aptitude for, the courses in Soils and Farm Crops. They will have done well in their first courses in chemistry. They will have a flair

for mathematics and statistics.

These "brains" usually will have become interested in attaining advanced degrees, and will be trained to do research and to pursue advanced technological studies in soils, or in crops, or both. There won't be many of them. (Freshmen may be required to tip their hats to seniors in Technical Agronomy!)

## Quality Polled Herefords



Real Plato Domino Jr.

**Heads Our Hereford Bull Battery**

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Welcome*

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# Little American Royal

## 25th Anniversary

*Featuring—Captain Borg  
and his  
Olympic Dressage Horse Act*



Over 150 Show Animals

Sponsored by the Block and Bridle Club and Dairy Club

# SATURDAY, MARCH 28

7:30 to 10:00 p.m.

General Admission 75c

Reserved Seats \$1.00

Club Groups 50c



# Ag School Angles

By Herb Lee

**K**NITTING IN CLASS is not as bad as sleeping, Dee Etta Clark, an Agronomy junior, has proven. Even though this cute little blonde frequently stitches class periods away, she has a 2.7 grade average after two years at Kansas State.

Male Aggies may joke about Dee's apparent boredom in class, but when grades are dished out she has the laugh. Miss Clark gained an A in Soils, Crops, and Organic Chemistry, something few boys in the Ag School can duplicate. In her spare time Dee works in the Dairy barn.

Perhaps Aggies get the impression Dee would make a good housewife, but she has other ideas. Here's the lowdown on what Dee hopes her future will be.

"I hope to do graduate work at

Cornell university after graduating from Kansas State. Then I would like to go into government service (Point Four Plan or Technical Cooperation Commission) and be sent to Bolivia, South America. The problem of raising the standard of living of the Indians (Bolivians) has interested me for a number of years."

## Late to Graduation

You've heard of the student who stays up all night playing cards and sleeps through half his classes the next day. This sort of fellow has to cram all his studying in at the last minute. And as a result he usually flunks, but not Evert Benes, milling student from Holland, who almost didn't graduate in January.

It appeared Benes would never get all his work in for graduation, but "Dutch" came through by staying up to study for a change.

A number of professors and secretaries were evidently relieved that Benes had made it, but when graduation exercises started at 10:00 a.m. January 24 Benes failed to show up, so Dean Mullen called his rooming house. Another boy answered the phone and said Benes was still sleep-

ing. The sleepy Dutchman was awakened and sauntered in to the graduation ceremonies during the prayer—an hour late.

Despite his unusual habit of staying up all hours of the night, Benes was one of the sharpest students in the milling school. He left Manhattan February 7 for New York city where he expects to work his way back to Holland on an ocean liner.

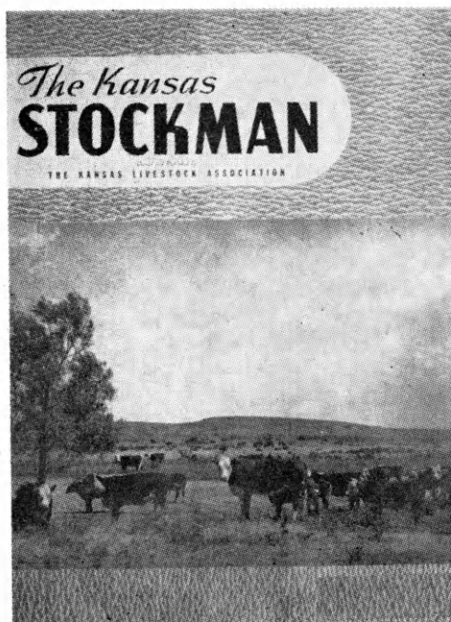
## Breakfast in One

How would you like to have this egg for breakfast? It weighs 5.2 ounces and measures about 8 inches in circumference at the short axis.

Art Beerbaum, who lives north of town, discovered the egg and called Prof. Loyal F. Payne, head of the Poultry department, to ask if the egg was a world record. Payne informed Beerbaum the largest egg known weighed 11.2 ounces and was displayed in the Pasteur Museum in Paris. The United States record is 8 ounces.

The large egg, laid by an Austra-White hen, was believed due to the formation of an egg within an egg. This occurs if a hen is sufficiently

(Continued on page 48)



The Kansas Livestock Association owns and publishes THE KANSAS STOCKMAN, a monthly livestock journal which will keep you informed on livestock production and management practices in Kansas. It also keeps you up to date on legislation, market trends, new developments, and other things which affect the livestock industry in Kansas.

## Invest In Your Future by JOINING the Kansas Livestock Ass'n

Officers, directors and members of the Kansas Livestock Association keep in contact with all legislation concerning health regulations, the movement of livestock into and out of the state, branding, freight rates, and other regulations pertaining to the livestock industry. The Association works full time for more research funds and more livestock research at Kansas State College.

**Plan to attend the Kansas Livestock Association's 40th annual convention in Wichita, March 12, 13, and 14.**

Mail the coupon below along with \$3.00 for your membership in the Kansas Livestock Association, 909 Harrison, Topeka, which includes subscription to The Kansas Stockman.

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Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

# Sensible Tools For Practical Conservation

It's one thing to build good soil-conserving structures, and to initiate sound conservation practices. It's another thing to *maintain* them on a practical basis . . . to keep them working properly.

We've all seen terraces, grassed waterways, and other structures carefully designed to save soil, doing more harm than good because they were allowed to break down at vital points during critical seasons. The lack of sensible tools to maintain such soil and water-

holding structures is often the Achilles heel of conservation practices.

The NEW IDEA-Horn Hydraulic Loader and Dozer, with easy-on-and-off working attachments, is the type of big capacity, versatile tool that makes it possible for the farmer easily to do a good job of conservation *within the framework of his regular farming routine*. Design and quality of this tool is outstanding . . . which is expected of any piece of farm equipment bearing the name "NEW IDEA."



Dirt Bucket (above) and Dozer Blade (below). Two of the quickly interchangeable attachments for the New Idea-Horn hydraulic loader.

## **NEW IDEA** **FARM EQUIPMENT COMPANY**

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# Identical Twins



**IDENTICAL TWIN CALVES** Pat, left, and Mike held by Robert Shue, left, and Herman Knoche are revolutionizing dairy research. They equal 25 pairs of unrelated calves in feeding trials as they are alike in size and characteristics.

**By Joe Armstrong**

**N**OT SINCE THE Babcock butterfat test has anything revolutionized dairy research like the use of identical twins. Nutrition tests that formerly required at least 50 head of cattle can now be operated, using only a pair of identical twin calves. Using 50 head to operate each test in order to overcome the inherited variability factor has been an expensive proposition and required extensive facilities.

From work in New Zealand and Sweden it was learned that one pair of identical twins is equal to 18 to 26 pairs of unrelated animals when results are measured in terms of gain in body weight. When identical twins are used to measure milk and butterfat production, the likeness is even more striking. The standard deviation in production between eight pairs of twins amounted to only six pounds of butterfat when the pairs were fed and managed alike. In the case of experimental cows selected at random and put on a comparative base, the inherited variability factor will produce an average deviation of 50 pounds between individuals.

## **Have Two Pairs Now**

Taking advantage of this economical, yet rigidly controllable means of experimenting, the dairy research program at Kansas State college acquired two sets of identical twins: Pat and

Mike—Mary Alice and Mary Lou. Many more sets are needed here and at other colleges.

Fraternal twins cannot be used, as they are the same as any other animals. They are the result of the fertilization of two eggs at the same time, producing two completely different calves. In the case of identical twins only one egg is fertilized; however, after fertilization occurs some force, as yet unknown, acts upon the fertilized egg, causing it to divide into two independently growing cell masses, each carrying the same number and kind of genes. These develop into identical twins and must be of the same sex.

## **Detecting Identical Twins**

How can we be sure that a pair of twins are identical? First of all, they must be of the same sex; they should show similarity of overall body conformation; that is, size, depth of body, spring of rib, length of rib, contour of topline, likeness of rumps, and feet and legs. Any abnormalities of conformation which may exist also should follow the same pattern. The twins should have a striking similarity of heads, this being one of the most specific means of identification.

Color is very useful in identifying these "identicals," especially the shade of fawn or brown animals. Spotted animals need not have exactly the same location of spots, but the amount and proportion of spots should be the same.

Another criterion for identification

is hair whorls, especially those in unusual places such as the face. Nose prints have been used to help identify these twins. Similarity of horn development is also useful in identification. Comparison of blood antigens is used to a certain extent, but is not absolutely accurate at present.

## **Twins Testing Feeds Now**

Pat and Mike are being used in comparing alfalfa and prairie hay as roughage for dairy calves. Mary Alice and Mary Lou are being fed various levels of grain rations to determine the effect on their growth and development. Other twins will be used to test various milk substitute calf feed formulas. Later on when they reach maturity the heifers will be used to help determine the protein level required by dairy cows and the effect of roughage extenders such as corn cobs on milk production and growth. Other tests will determine the vitamin and mineral needs of calves.

Twin bulls may be used to a definite advantage in improving the artificial breeding program in Kansas.

Both sexes of identical twins will be used to determine the values of various pasture crops in dairy nutrition. The list is practically endless.

It is easy to see the long-range advantage of this type of research and it is to the interest of dairymen everywhere to report cases of identical twins so they may be procured for research in the "twin efficiency" program now under way at Kansas State.



**H**EARING SOUNDS of insects eating inside kernels of grain is now possible by using a new hearing device developed by the Departments of Flour and Feed Milling Industries and Electrical Engineering. When heard over the new device, insects make harsh, crunching sounds resembling a horse chewing oats. Such sounds are hardly music to the farmer's ear, for they mean he is losing money.

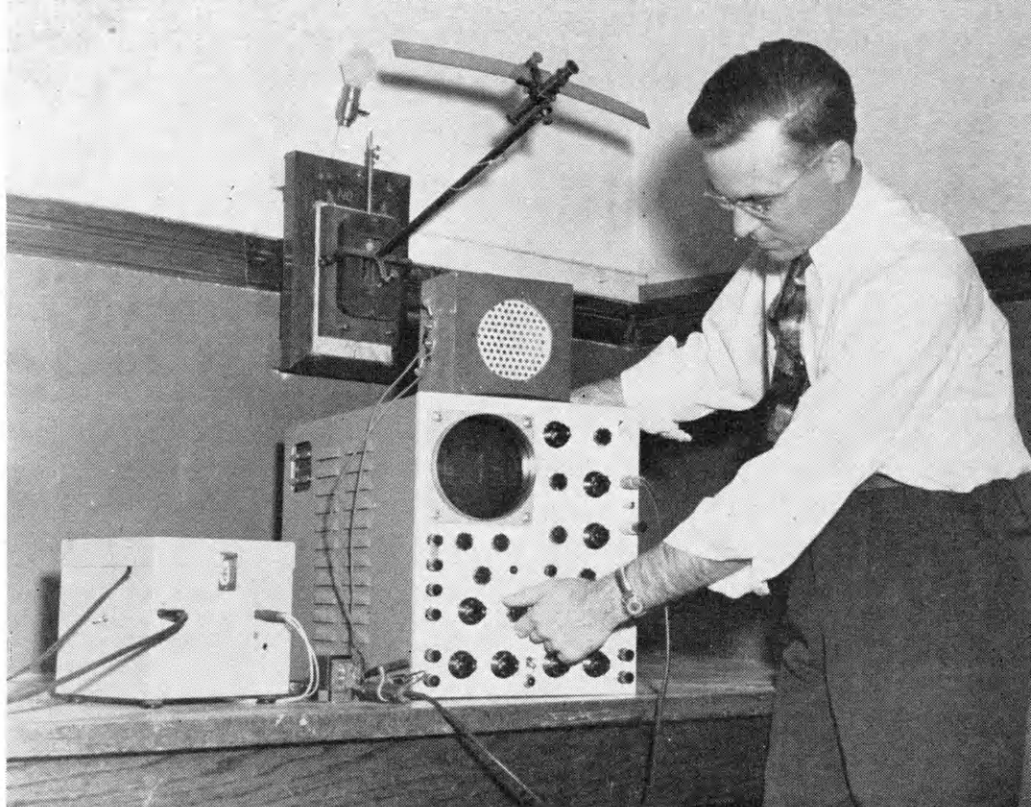
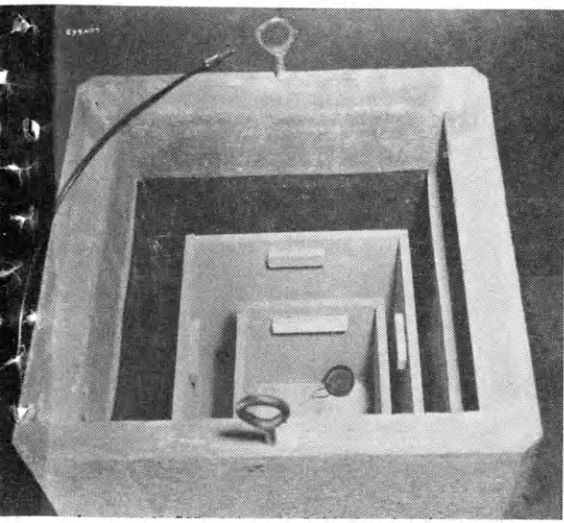
### No External Signs

Up to now, farmers have been unable to detect these internal insects because they leave no signs outside the kernel. As a result the insects reproduce generation after generation without the farmer knowing it. Even the local elevator operator failed to notice the weevils when the grain was marketed. In most cases the farmer failed to notice a few pounds loss on his load of grain. Little did he know that insects were eating away his profit: an estimated two pounds of grain out of every bushel of wheat produced.

Since local elevators failed to note the presence of weevils, the infested grain would go to the terminal elevator. Here the grain would be examined and if no insects had emerged they went unnoticed. Next the miller would purchase the infested grain and process it into flour. However, upon examining the flour made from insect-infested grain, the miller would find insect fragments. If enough fragments were found, Pure Food and Drug laws would prohibit its sale for human consumption. As a result, the miller was forced to sell the flour for livestock feed at a big loss.

After receiving weevilly grain a few times and being forced to sell

**THIS SERIES of boxes keeps out external sounds to permit listening to insects eat inside grain placed in the center box.**



**ROBERT ADAMS**, graduate student in Electrical Engineering, adjusts the controls of a machine which measures sound vibrations made by insects eating inside kernels of grain. The small box on the machine is a loudspeaker which permits listening to insects eat.

### *Hearing Aid Detects*

# Internal Insects

*By Dick Fleming*

the resulting flour at a loss, the miller decided to be more careful when buying grain the next time. But, like the farmer and the local elevator, the miller found he had no way of detecting internal insects. The milling industry then sent out a call for a simple, quick, and inexpensive test for detecting internal insects in small grains.

Taking the cue from industry, the College started work on new techniques for finding hidden insects in wheat and other small grains. First came the stain and fluorescent dye tests which made the gelatinous egg plug on infested kernels visible. Next came the X-ray test in which an X-ray picture was taken of a group of kernels. This proved to be the most accurate, but it was slow; it required expensive equipment, and it

required an experienced operator.

Still looking for a simpler test, the millers hit on the idea of listening to insects eating inside kernels of grain. The result was the new hearing device which Robert E. Adams, a graduate student in Electrical Engineering, designed and constructed. The new device makes possible a simple test which can be performed by almost anyone with a little practice.

The only equipment needed for the new test is a sound-proof box for the grain sample, a microphone, and an amplifier. Getting a sound-proof box proved difficult, but Adams decided to construct four boxes fitting inside each other to keep out sounds. Two boxes, one larger than the other, were placed inside a still larger box made of sheet copper. The copper box was

(Continued on page 46)



A FRONT VIEW of the nearly completed Ag Wing which K-State's Aggies now feel sure they will get to use before graduation.

### *Building Boom Spells*

# Expansion on the North End

By Bill Bergman

WITH THE RISING enrollment each year from the influx of so-called war babies and an expected student population of 10,000, K-State's building program is expanding to meet future needs. Finishing touches are now being given to the new Ag wing and moving day will soon be here for the Ag departments.

Each Ag department will occupy a share of the new wing; the Ag deans will occupy offices on the first floor. The Horticulture department and Extension specialists will move to the new wing and the Dairy, Poultry, Milling, Agronomy, Animal Husbandry and Economics departments will get one or more new rooms.

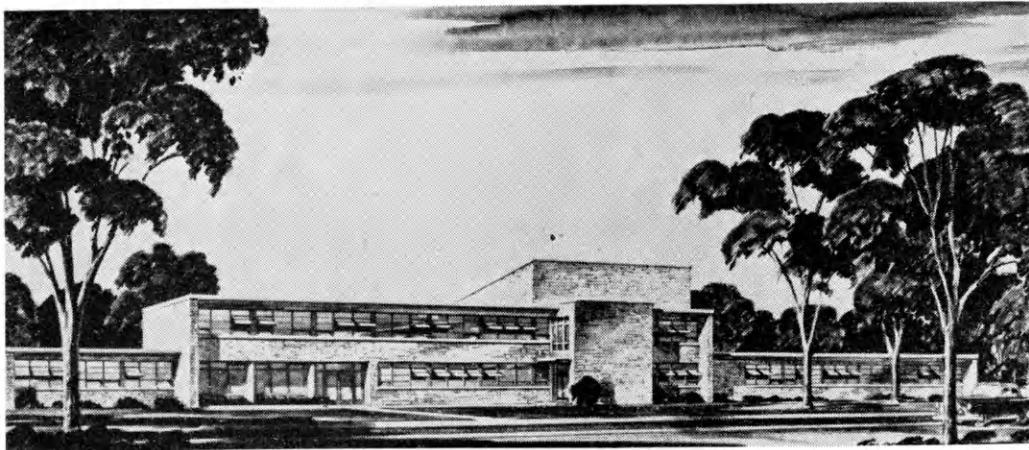
The completion of Waters Hall is only the beginning, however. North campus is due for considerable expansion in the next few years to provide facilities for an expanding college.

Work will soon be started on the Animal Husbandry unit of the large Animal Industries building which, when completed, will house the Dairy, Poultry and Animal Husbandry departments. The Feed Technology wing on East Waters hall will be started soon and will contain equipment for training and research in feed processing.

An Extension Division office building is being proposed to the legislature, and construction will begin on the approved Veterinary Medicine clinic this spring.

The most needed development is the Animal Industries building. At present the Legislature is being asked for \$1,300,000 to build the Animal Husbandry unit and the pavilion. The Animal Husbandry unit will contain the department offices and classrooms and will have labs for breeding

### Vet Clinic . . .



CONSTRUCTION is supposed to start this spring on the Veterinary clinic which will be located just north of Claflin road. The new clinic will cost \$575,000—\$75,000 more than the 1951 legislature appropriated for constructing the new "T" shaped building.



and nutrition studies, wool grading, classification and measurement, and a meats lab, including killing, cutting, curing, freezing, lard and sausage rooms. Large lecture rooms, a herd book room, a reading room and a large exhibition room for meetings and demonstrations will also be included in the first unit.

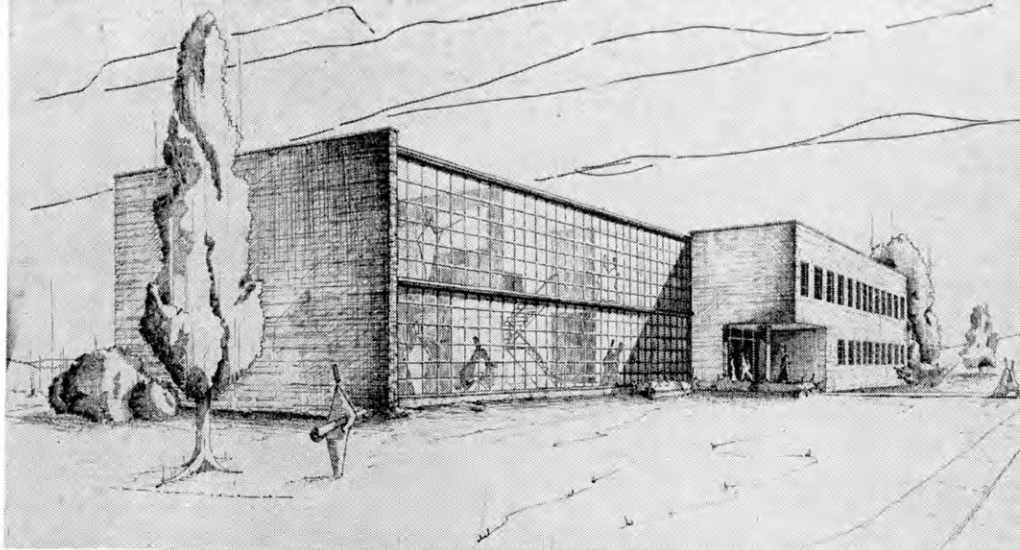
The pavilion will be used jointly by the Animal Husbandry, Dairy and Poultry departments for instruction and practice in all phases of livestock management. Judging classes from all three departments will use the pavilion and will not be affected by inclement weather. The pavilion is urgently needed for meetings of livestock groups such as the annual Feeders' Day and Farm and Home Week, for demonstration purposes.

When completed, the Animal Industries building will consist of two large units connected by the pavilion, which will have 50,000 square feet of floor area. The second unit will contain the Dairy and Poultry department offices, classrooms, and labs. The Dairy department will have nutrition, breeding, manufacturing, processing, and testing labs. In addition to offices and classrooms, the Poultry department will have their research, breeding, nutrition, production, egg candling, and grading labs.

### "T" Shaped Building

The 1951 Legislature appropriated \$500,000 for the new Veterinary hospital, but an additional \$75,000 is needed to build the structure. It is to be located north of Claflin road at the north edge of the campus. It will be of modern design built in the shape of a "T" with a 246-foot frontage. This building is designed for convenient operation, better student training, and better service to the public.

**ONLY THE OVAL-shaped pavilion and the Animal Husbandry wing on the right of the new Animal Industries building are being proposed to the state legislature this year. The Dairy and Poultry departments' wings on the left are to be proposed at a future date.**



**AN EARLY ARTIST'S conception of the proposed Extension office building. Changes have already been made to make the building more functional. When completed, the new building will give the Extension Division much needed space to carry on its activities.**

Included in the building plans are staff and reception offices, a pharmacy, X-ray rooms, kennel rooms, sterilizing rooms, food preparation labs, and large and small animal surgical rooms. There will also be isolation stalls, an autopsy room, an ambulatory clinic room, and a 300-seat auditorium. The second floor will include dormitory, resident intern space, and a large hay mow.

Dean E. E. Leasure of Veterinary Medicine is hopeful that construction of the new clinic will start this spring.

### Four Stories, No Floors

Contracts for the construction of the Feed Technology building are to be let this month. The building will be attached to the east side of East Waters hall, where it will house a pilot plant formula feed mill. An unusual feature of the building is that the mill room will be four stories high, with no floors. Advantages of this type of construction are that walls and floors will not interfere with grain chutes, and the entire mill will be visible from any place in the mill room. Steel stairs and catwalks will provide access to equipment at various levels.

The new Extension office building has been approved by the Board of Regents and the Legislature has been asked for \$705,000 to complete it. It will provide 45,000 square feet of floor space and is to be located north of Claflin road. At present the Extension Service is housed in the inadequate and unsatisfactory, converted World War II barracks west of West Ag. These wooden buildings, finished with tar paper and wallboard, present a fire hazard as well as marring the looks of the campus.

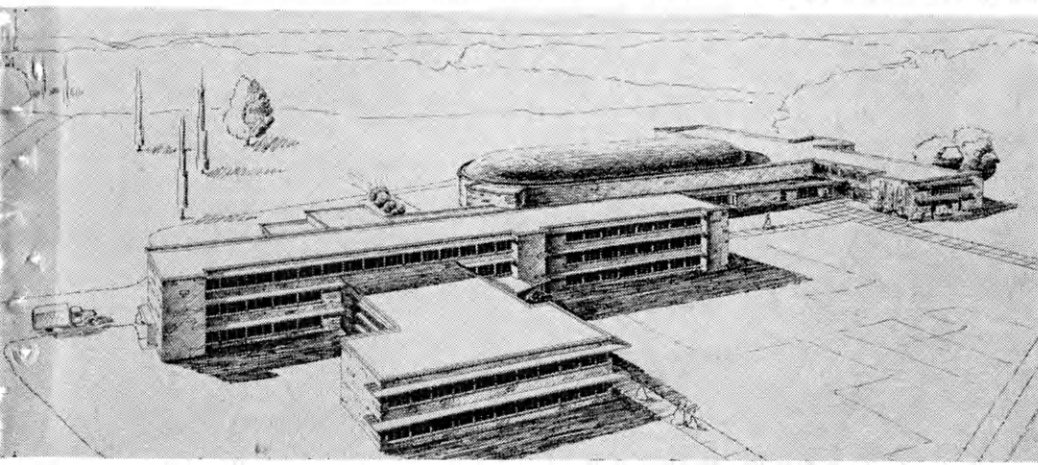
New buildings also will be going up on the College farms soon. The Dairy department will soon start construction of a sheet metal cattle shed north of the present dairy barn. This shed will house heifers and dry cattle. In the past part of these cattle were kept in an old wooden barn on the old Horticulture farm and east of the Dairy barn, which many years ago was the old Vet hospital. This building is an eyesore and will soon be torn down.

"Another similar shed," according to Prof. F. W. Atkeson, head of the Dairy department, "should be built to be used as a loose housing stable for the milking herd. This is in line with the system advocated for Kansas dairy farmers. With present facilities, the Dairy department is unable to run experiments on a dairy herd in a loose housing system."

### Expand KABSU

Plans are being made for doubling the capacity of the bull barns at the Kansas Artificial Breeding Service Unit. The artificial breeding program has developed until the present quarters are too small and bulls must be

(Continued on next page)





tied outside to trees because of a lack of shelter. This is a poor practice if high breeding efficiency is to be maintained. By expanding KABSU, farmers will have a better breeding program for improving their dairy.

The Sheep farm was moved from its old location north of East Ag because of the planned expansion of the campus. It is now located on a 50-acre plot a mile north of the Dairy barn. The main Sheep barn is 228 feet by 50 feet and was moved in three sections and the nutrition barn in two sections. Remodeling the barns was completed at the new location last fall. Plans call for the construction of a shepherd's house and new silos on the new farm. Facilities have been trebled in the sheep division by relocation of the barns.

Extensive repairs and remodeling are being done on the Beef barns. One bull barn has already been rebuilt and two more must be torn down and reconstructed. The Animal Husbandry department started an extensive fencing program last year and also had to do considerable road work because of the relocation of the Sheep barns.

#### Move Claflin Road North

The expansion program on the north campus calls for the relocation of Claflin road some 600 feet north where it would bisect the Poultry farm. Since this is a public road, it will create a critical situation. The Campus Planning committee has said on several occasions that the present site of the Poultry farm will be

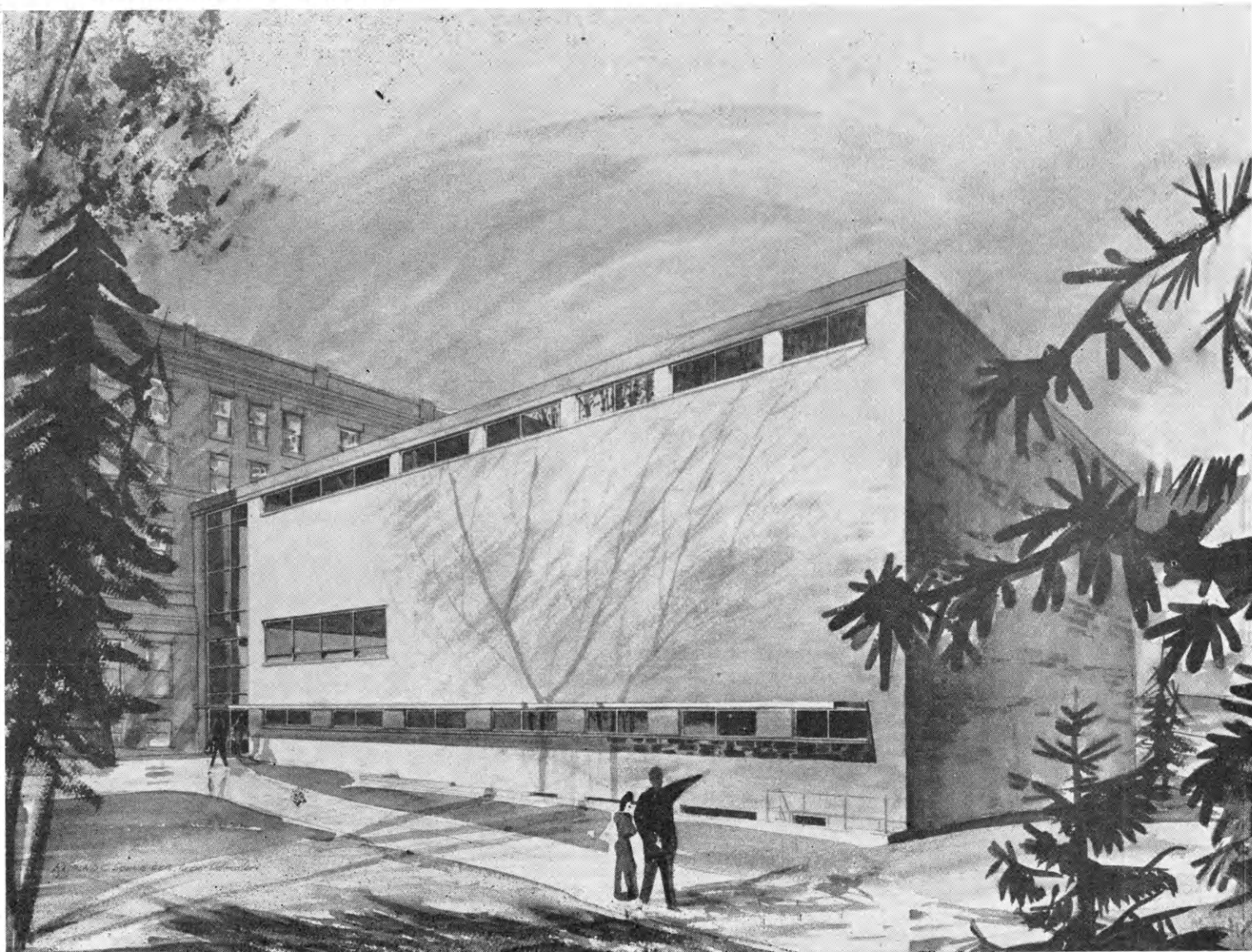
needed for permanent buildings and recreation space for the College.

Plans are being made to obtain a new location for the Poultry farm. Eighty acres are needed with a location close enough to the campus to be easily accessible by students and staff.

The new farm will need 30 summer range shelters and 11 buildings providing 26,000 square feet of space. Included in these buildings will be nutrition labs, feed, egg and incubation rooms, and broiler, laying, breeding and brooder houses.

All the building discussed will soon be completed or approved. This extensive building program is an indication of how Kansas State is striving to and will provide the best educational facilities possible for its students.

## Feed Men Give . . .



AN ARTIST'S conception of the new Feed Technology building which will be attached to the east side of Waters hall.

# Watery Blood Disease

*By Dick Johnson*

**A**NAPLASMOSIS—watery blood disease—causes more cattle losses in Kansas annually than anthrax caused this year, Dr. E. J. Splitter, veterinary researcher at K-State, reports.

This disease has been common in Kansas since 1928. So common in fact, Splitter said, that cattlemen have become accustomed to the disease. In 1944, 1,620 cases were reported in 38 Kansas counties. Anaplasmosis is common in 27 states and may be present, but not recognized in other states, he said.

## **Nature of Organism Unknown**

The nature of the organism causing anaplasmosis is not known, Splitter said. However, the organism causes the red blood cells to break down and the blood becomes watery. After infection 14 days usually elapse before the organisms are noticeable in the blood cells. The organisms reach a peak about the 24th day and then decline. On the 28th day the first symptoms occur. At that time the white areas of the body become yellow and the animal loses its appetite. The animal will also become anemic and weak.

## **Blood Transfusions Aid**

The best-known aid is to give blood transfusions. This has a disadvantage in that it requires one to two gallons of blood a cow and the treatment is not always effective. Antibiotics are now being investigated for possible use against the disease, Splitter said. Terramycin, aureomycin, and chloro-

mycetin have been found to prevent, but not cure anaplasmosis. Antimalarial drugs have been tried with no success. The disease is similar to malaria, but the organisms are unrelated, according to Splitter.

## **Carriers Not Sick**

Anaplasmosis will not cause sickness in calves before they are 8 or 9 months old, but if calves are infected at that time they will remain infected and be carriers of the disease. Infected cows carrying the disease are the source of all infection, Splitter reports, and horseflies and ticks are natural spreading factors. Numerous outbreaks have been caused by dehorning saws and vaccinating needles.

Anaplasmosis attacks only animals

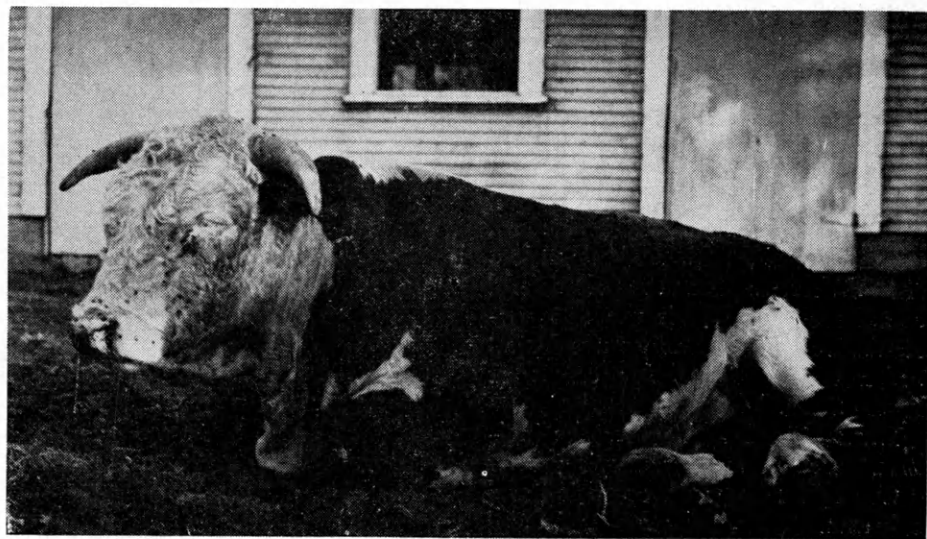
belonging to the bovidae family. Splitter says this makes the disease hard to study because there is no small animal that will contract the disease so it can be studied in the small animal laboratory.

First identified in South Africa in 1910, the disease is still common there and nearly 100 per cent of South African cows are infected. However, there is no loss of cattle because the calves are infected when immune and remain as carriers with no effect on their health.

Frosh: "Hey, where are you going in such a hurry?"

Soph: "I just bought a textbook at the book store and I'm trying to get to class before the next edition comes out."

## **Sick ? ? ?**



**ALTHOUGH** this bull does not look sick, a laboratory examination has shown that he is afflicted with anaplasmosis, which causes red blood cells to become watery. Since there are no marked external symptoms, the disease frequently goes unnoticed.



# Going to College

By Lois Ottaway *Here's What It Costs at K-State*

**H**OW MUCH IS it going to cost?" is the biggest question in the mind of any buyer and that goes for prospective Kansas State college students, too, Eric Tebow, director of admissions at K-State, says.

Tebow, who has had lots of experience talking with college-interested high school students, names \$750—not including spending money—as the amount a new male enrollee can expect to pay in the fall of '53 if he is a resident of Kansas. For women the amount is a little less, or about \$725. Out-of-state enrollees can figure to pay \$90 more.

These figures are based on the resident enrollment fee, which totals \$170, books estimated at \$40, plus board and room estimated at \$540 for male students and \$516 for female students. (The latter is the amount charged in College-operated dormitories. Living costs are about \$70 more in sororities and \$60 more in fraternities.)

## Fee Breakdown

A breakdown of the enrollment fees shows \$170 is required a year, or \$90 first semester and \$80 second semester. The \$170 is divided among four fees: matriculation, incidental, student health, and student union. The difference between first and second semester fees is the \$10 matriculation fee paid only once by all students who enroll for credit at Kansas State.

The \$65 collected under the incidental fee assists in defraying costs of library books, plant operation and maintenance, and non-academic and administrative personnel. Student publications such as the daily *Kansas State Collegian* newspaper, the *Royal*

*Purple* yearbook and the *Student Directory* are paid entirely from this fund. It also covers admission to all college athletic events and K-State Player productions. Unlike many similar institutions, no other laboratory fees are assessed a student because this fee includes laboratory supplies.

The Student Health Service, supported by the student health fee (\$10 per student per semester), offers an adequate medical staff and hospitalization for students. Full-time physicians are on duty to diagnose anything from a cold to a broken heart. If a student is admitted to the College Hospital he is provided two days of hospitalization each semester; after two days, \$3 a day extra is

new student a physical examination when he enters college.

A few years ago the student body at K-State voted a student union fee of \$5 a semester, which was approved by the State Legislature. This fund is collected for the new Union building. Ground-breaking ceremonies for the Union are scheduled for this spring.

Books are estimated to cost \$20-\$25 a semester. Of course, this figure varies with the curriculum and also depends on whether you can arrange to use some of your friends' books.

Housing and meals average about \$50-\$60 a month for male students and for women the figure ranges from \$55-\$65.

The one item a student himself can control is the one referred to as

A Year's Expenses		
<b>Fees</b>		<b>\$170</b>
	<b>Matriculation</b>	<b>\$ 10</b>
	<b>Incidental</b>	<b>\$130</b>
	<b>Student Health</b>	<b>\$ 20</b>
	<b>Student Union</b>	<b>\$ 10</b>
<b>Books</b>		<b>\$ 40</b>
<b>Board and Room</b>		<b>\$540</b>
<b>Spending Money</b>		<b>\$135</b>
		<b>\$885</b>

charged for the next 21 days. Following this, regular Blue Cross rates are in effect.

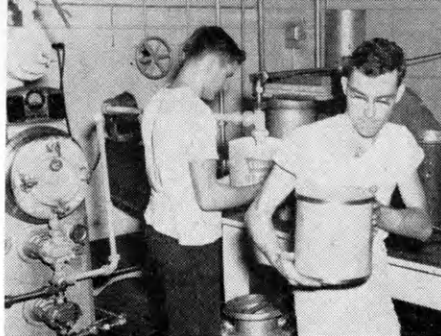
Small charges for special expensive medicines and laboratory procedures are, for the most part, the actual cost of the extra service rendered. The Student Health service also gives each

"spending money." "It's up to him to decide how much he's going to spend," Tebow says. "However, a reasonable estimate is \$135 or \$15 a month."

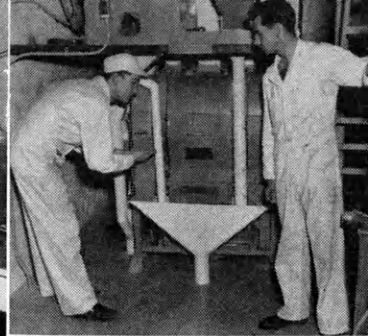
All told, sound investment for a year's education for a Kansas resident costs about \$885.



# ?



Dairymen . . .



Millers . . .

## *Here's What the Ag School Has To Offer*

By Nancy Brecheisen

Dear Larry:

I sure enjoyed your letter telling what the high school gang has been doing this year. I almost wish I was back there with you.

You asked me about the courses in Agriculture here at Kansas State, part-time work, and the draft standing of Ag students. I'm also sending pictures of some of the classes and my last semester's schedule.

There are curriculums in Ag Administration, Soil Conservation, Ag Education, Dairying, Ag Journalism, Landscaping, Horticulture, and Milling. The trouble with curriculums is you get side-tracked in courses like English, math, chemistry, botany, and comprehensives.

If you're planning to farm or go into soil conservation work, you'll probably enroll in the straight agriculture curriculum. For soil con-

servation work you'd major in Agronomy. You can also major in Ag Economics, Animal Husbandry, Dairy Husbandry, Horticulture, or Poultry. If you're interested in special work with an agricultural background you can substitute courses in math, bacteriology, entomology, botany, plant pathology, ag engineering, modern languages, or other approved departments for some of the Ag courses.

Is Don still talking about mixing business with agriculture? In Ag Administration he can elect lots of business classes like accounting, business law, and marketing. Then he'd be set for rural banking, agricultural services, processing and marketing of grain and other jobs that are closely

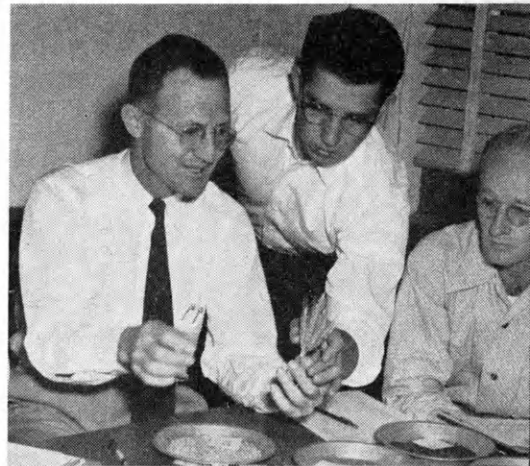
related to farming as well as a good business background for farming.

I know you have thought about teaching vocational agriculture. If you make at least a C+ average in the Ag Education curriculum, you'll get a recommendation from the College and have a job cinched when you get your degree, Bachelor of Science in Agriculture.

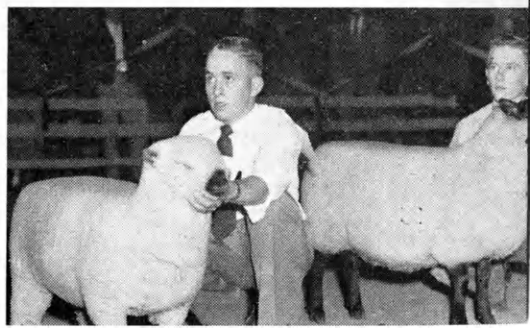
Wasn't Bill the one who was always asking in Voc Ag class about

(Continued on page 42)

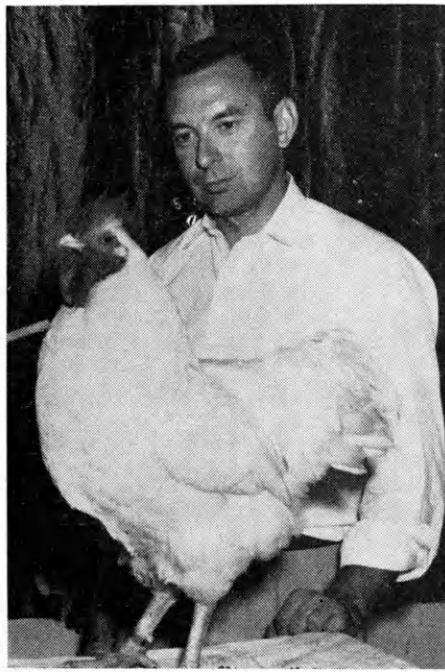
### Agronomists . . .



### Stockmen . . .



### Poultryman . . .



### Florist . . .



# Farm and Home Week

A NOTE OF anticipation was presented to some 3,000 Farm and Home Week visitors at Kansas State college February 2 through 5 by President James A. McCain.

McCain cited television as the medium which would bind the College, the farmers and the homemakers of the state more closely.

In fact, many of the features of Farm and Home Week can be carried into the thousands of Kansas homes. Extension specialists, especially, can present a great deal of valuable material over television.

Every department in the Ag School, several in Home Economics, and commercial agricultural institutions presented programs during the 85th Farm and Home Week. Banquets added a touch of relaxation during the five-day affair.

The cherry pie baking contest for 4-H girls provided perhaps the widest

interest. Competing with 50 other county winners, Barbara Carson, 16, of Mound City baked the best pie. She represented Kansas at the national contest in Chicago in February.

A new feature was added in the form of a rural art exhibit. Over 50 paintings were contributed, with subject matter ranging from roses to bulls and from realistic farmsteads to abstract non-objective work.

One of the most interesting tips for women was supplied by Mrs. Jane Scott, field representative for a national pattern company. The information will also apply to male Aggies.

"Clothes not only make people look more attractive, but actually affect a person's personality," she said. "When you wear the wrong apparel you have an inferiority complex. Each woman (or man) knows whether she or he can wear a par-

ticular style. It is best to wear the type of clothes that makes the wearer at ease."

On the farm technical information scene irrigation programs received considerable attention, possibly due to the extended dry weather in Kansas last year. Farmers were advised to buy inexpensive systems utilizing automobile engines for power if irrigation was desired for only a few weeks of the year. Those who irrigated large acreages for a long period of time were told to use diesel power to cut costs. LP gas, natural gas, motors, and electric systems were also outlined as possible sources of power.

## Sprinklers Most Common

"Sprinkler irrigation is receiving the most wide use," John Funk, associate professor of Ag Engineering, said. Sprinkler systems are well adapted for use on rolling and uneven terrain, and are well suited to pastures and legumes, especially alfalfa. Providing labor for moving the aluminum pipes is a big drawback, however.

A six-year experiment in vitamin A nutrition was discussed in animal husbandry meetings. Feeding various sources of vitamin A proved to be less successful than feeding straight alfalfa. Cattle fed on alfalfa were 40 pounds per animal heavier than those fed other sources of vitamin A.

Not less than 500 chickens are a must for an important enterprise on the general farm, Prof. Tom Avery told poultrymen.

Dr. Clyde Mueller, Poultry Husbandry, said the most popular chicken in Kansas is the New Hampshire. They compose 21 per cent of the total crop. Leghorns and White Rocks follow with 13 per cent each.

Kansas poultrymen will soon have plans for an inexpensive pole type house without a concrete floor and a nearly flat roof. The square house,

## Chiseled . . .



CRANSTON HEINTZELMAN, professor of sculpturing, demonstrates sculpturing at the first rural art program held in connection with the 85th annual Farm and Home Week. Profs. E. D. Warner and John F. Helm Jr. served as co-chairmen of the rural art exhibition.



# to Farmers

By Herb Lee

40 x 40, will house 500 hens. Costs will run about \$2 per bird compared to \$8 to \$10 for a standard type hen house.

In dairy meetings it was pointed out that cows kept in open loafing shed type arrangements usually produce 5 to 10 per cent more milk than those kept in closed stanchion type housing.

"Adapt the crop to the cow to lower production costs," Dr. C. F. Huffman, Michigan State college, said in discussing the rumen and its function.

A great advancement in cattle nutrition has come from the study of fermentation vat microbes, Huffman related. Microbes of the rumen (first stomach), scientists have found, can digest tough compounds that the enzymes produced by the animal body cannot digest.

"Recent investigations," he said, "show that the rumen microbes make high-quality protein from quite poor proteins and even from simple non-protein compounds (such as urea), which are of little value for single-stomached animals.

He said urea should not be fed to single-stomached animals. Single-stomached animals should get plenty of readily fermentable carbohydrates like corn, oats, and molasses with urea to avoid urea poisoning. Huffman said the grain mixture should never contain more than 3 per cent urea.

## More Roughage Protein

Instead of using so much protein concentrates with cattle feed, Huffman thinks dairymen and cattlemen should use more protein supplied by pasture, hay, and silage crops. Protein content of the crops may be increased, he said, by growing a higher percentage of legumes or by harvesting at an earlier stage.

One of the main features from the Home Ec side of Farm and Home

Week was the emphasis on management of the home to provide more leisure time for the housewife.

The deep freezer was noted as a big help in saving the housewife time in preparing meals. If necessary, entire meals may be taken directly from the freezer, it was pointed out.

Reading is a good way to spend spare time, housewives were told. However, there are very few rural libraries in Kansas. The establishment of bookmobiles and trained librarians was named as a solution.

A program featuring 20 K-State coeds was presented to visitors to explain the many opportunities for varied training a woman may obtain at K-State. Dressed in apparel suitable for every class from physical education to journalism—the girls each told why they had come to



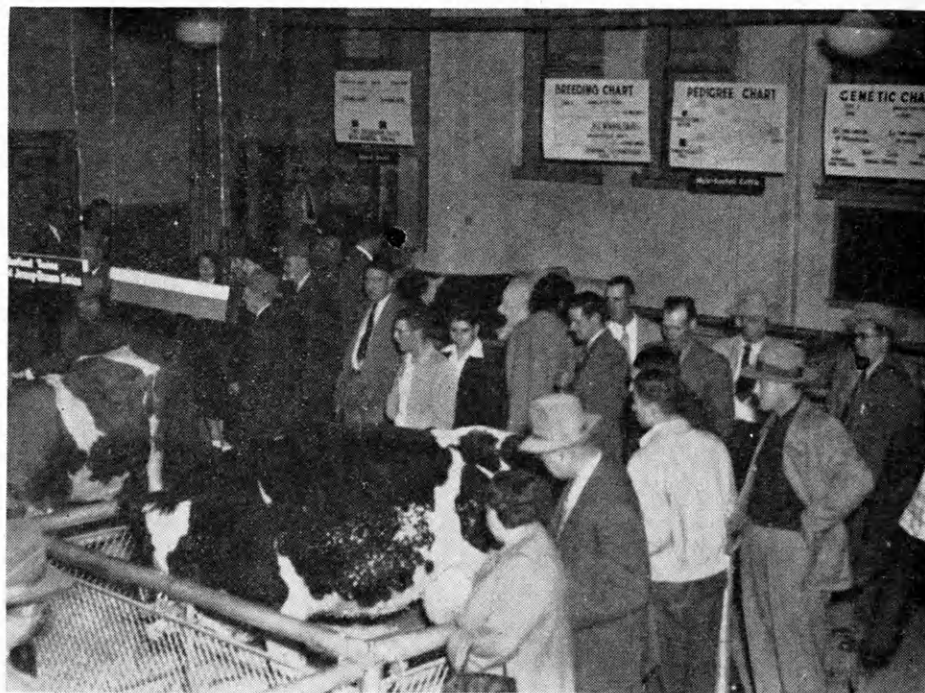
D. Howard Doane of the Doane Agricultural Service chats with George Montgomery, head of Economics and Sociology.

Kansas State and a little about what they were studying.

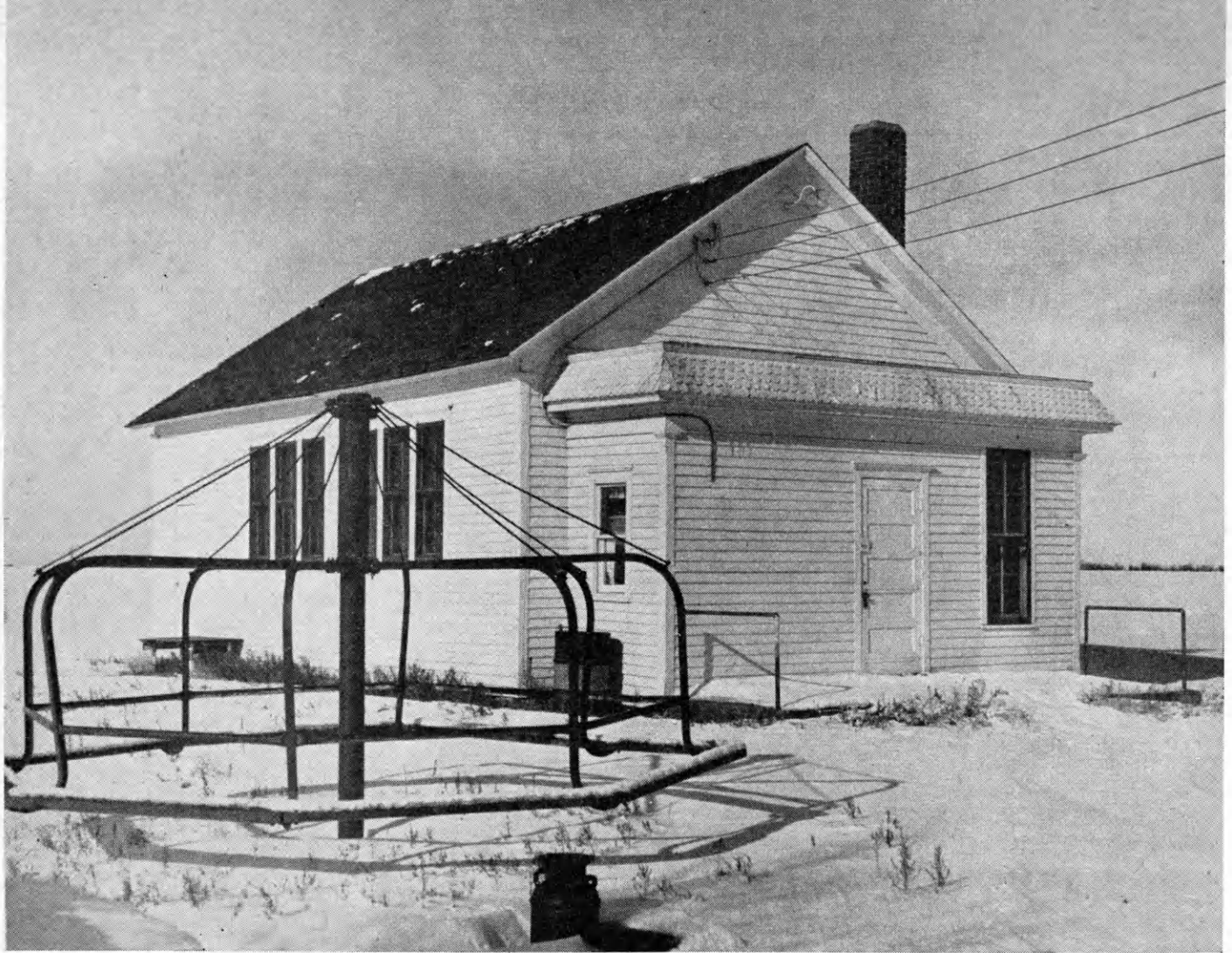
Grass is the cheapest way to put meat on steers and is the way to produce enough beef for the 2 million more Americans who are added to the consuming public each year, D. Howard Doane of the Doane Agricultural Service, St. Louis, told Kansas stockmen. Doane has run tests with steers on his farm in Missouri to find a way to produce beef at a price that will please both the producer and consumer. He said his tests showed that steers can be carried on grass and hay through the winter. They will shrink about 100

(Continued on page 43)

## Curiosities . . .



HERE SOME of the Farm and Home Week visitors examine freak dairy animals in the pavilion between East and West Ag. They saw mule-footed cows and identical twin calves which are being used by the Kansas State Dairy department for experimental purposes.



THIS IS A TYPICAL out-of-date, one-room schoolhouse which has been discarded in favor of new consolidated schools that are becoming more numerous each year. Although students could learn the three R's in the one-room school, they were not able to provide facilities for libraries, plays, and athletic contests. Now farmers are converting the abandoned schools into corncribs and haybarns.

*One-Room Schools and Hickory Sticks Bow to*

## Consolidated Schools of Brick

*By Herb Lee*

**L**OOK CLOSELY at the corncribs and haybarns along the highways and country roads! You may be able to recognize the old one-room schools where Dad and Mom and even the grandparents learned their ABC's to the tune of the hickory stick.

Yes, more and more rural schools are being consolidated each year into large educational plants serving the countryside for miles around.

"Actually, I hate to see the 'Little Red School House' of hallowed memories go," Dr. F. D. Farrell, president emeritus, relates. Farrell, who is now doing research on rural institutions,

has devoted a long life of service to education, especially of farm youth.

"We need larger schools so students may have more adequate educational opportunities, but few of us realize that the old rural schools had many advantages," Farrell said. "I went to a one-room school," he said proudly. "If students have the right kind of teacher nothing else matters. I had an 'honest to goodness' teacher. She taught 30 or 40 of us in the same room. I learned most of the fifth grade material by listening to that class recite while I was in the fourth grade."

"They drilled us more in the old

schools than they do in the schools of today," he continued. "We had fewer subjects and a more thorough presentation of each. As a result, we absorbed more. We especially got definitions down pat, something modern students are not taught to do. I'll bet a student of today couldn't give a correct definition of water."

Farrell enjoyed telling about his experiences in spelling matches at his old grade school. "I spelled them all down," he said.

"We did our homework by the light of a kerosene lamp," Farrell recalled. "But what of it, Lincoln read by the light of a candle."



One black mark against old schools was the lack of a library. Anything that requires a large amount of money is of course possible only in large schools where a large number of students can use it.

"One of the major desires of American parents is that their children have adequate educational opportunities," Farrell points out in a study on the Holcomb, Kansas, consolidated grade and high school. "This desire was an important factor in the establishment of the American system of public schools. It is a dominant factor in the continued maintenance and improvement of that system."

### Peculiar Difficulties

In rural communities the providing of adequate educational opportunities imposes some difficulties peculiar to such communities, Farrell continued. The usual sparse population often causes several difficulties in providing adequate financial support for schools. The housing of teachers and the transportation of pupils frequently impose additional obstacles. Because of restricted tax, adequate physical facilities, such as classrooms, equipment, libraries, and playing fields, are often difficult to provide.

More difficulties are encountered in a rural community where the farms are large and the population scattered, Farrell explained. Here the one-room school is inadequate. Thus with a need for a better educational system, farmers began to consider the consolidation of rural schools at the turn of the century.

In 1901 the state legislature made provisions for consolidation. Since that date scores of one-room school houses have been vacated in favor of modern school plants which do more

than educate students. They provide recreational facilities, vocational guidance, good health programs, personality development, opportunities for leadership, and training for a variety of jobs. Above all, better teachers can be hired in large schools.

One of the first schools to consolidate was that at Holcomb, Kansas, a district of 210 square miles, or 134,400 acres, which is devoted mostly to agriculture. The school is arranged in campus style with a main building for academic subjects, a vocational agriculture shop, bus garage, athletic field, and houses and apartments for school faculty. All the faculty live near the school. The town is small, with a population of only 200. It is, as Dr. Farrell says, an excellent site for a rural consolidated school, since it is in quiet, but physically attractive, rural surroundings.

Holcomb's enrollment averages 400, although it has ranged as high as 548. Instruction is in the elementary grades from the kindergarten

level up, and in the high school. Besides the customary three R's of the one-room school, Holcomb high school offers world history, general science, English, American history, algebra, geometry, music, biology, physical education, physics, international relations, and constitution.

Two of the less common, but most important, subjects are vocational agriculture and vocational homemaking, Farrell states. These subjects are of great value in a farming community.

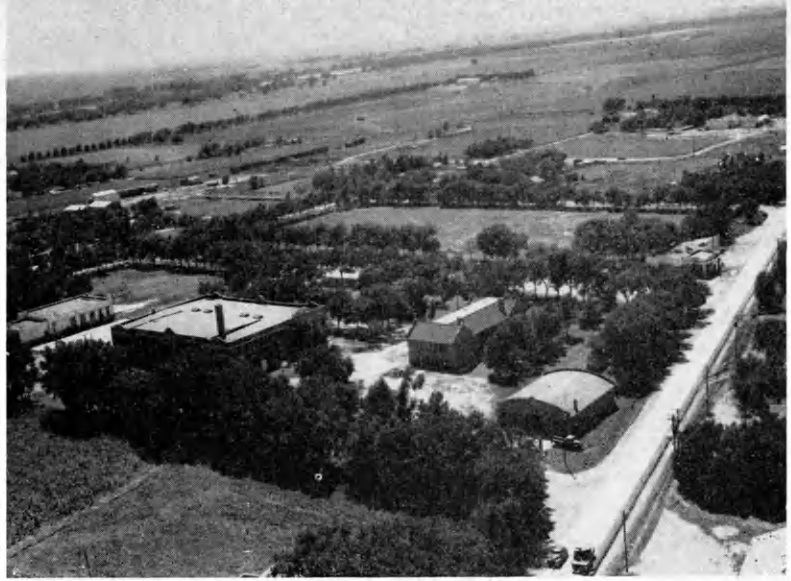
"Something never thought of in the old country schools were extra-curricular activities," Farrell says. Sports in the old days were limited to school picnics and skating parties.

### Athletics Important

From the beginning of Holcomb, athletics has been regarded by school officials and parents as an important part of the educational program. Basketball for both boys and girls is offered. Track was begun in the school's first year and baseball was started soon afterwards. Football has never been prominent in the sports program, however.

If a student wanted to play a horn, he had to take private lessons in his grandparents' era, but not at Holcomb. Literary, music, and dramatic activities have always been a major part of the school's activities. These activities appear to be regarded as important in the development of the students and in the enrichment of life in a rural community, Farrell points out. Students had little time for the arts in the one-room school.

(Continued on page 43)



**HOLCOMB, Kansas, with a population of only 200 was one of the first districts to consolidate its schools. Holcomb's district covers 210 square miles, which are devoted mostly to agriculture. Enrollment averages 400.**

**A NEW CONSOLIDATED school taking the place of several outdated one-room schools provides the children of its district with more efficient teaching and divides them into classes rather than having all students taught in the same room by the same teacher.**



# Tomorrow's Top Farmers

By Herb Lee

**N**AW, I DON'T THINK I'll take agriculture in high school, I know enough about farming now," the young farm boy told the FFA advisor who had walked through the ripe wheat field from his car to talk to him. "Don't think I'll go to high school anyway," the boy added from the seat of his combine.

The advisor laughed under his breath. He'd met lots of farm boys like this who actually believed they were expert wheat farmers. Some were good farmers, boys who were destined to become better farmers and farm leaders with proper education.

"What would you do if the platform brace snapped on your combine with a storm just a few hours away?" the advisor asked. The boy scratched his head. He was smart enough to know he couldn't drive 50 miles to town to get the piece welded before the storm broke.

"Nothin', I guess," he answered slowly.

"Don't you know how to operate a welder?" the advisor said. "And you thought you knew all there was to know about wheat farming. I think you'll be making a big mistake if you don't attend school next fall and take Ag."

The boy was sharp. He knew the advisor had made his point clear.

"All right, I'll think it over," the boy said, smiling.

## Makes Good Later

The know-it-all young wheat farmer attended school that fall and three years later he came to Kansas State and won the state Future Farmers of America farm mechanics contest. The boy's father had protested buying a welder but one had been bought for the farm just the same. The young wheat farmer learned to weld in his vocational agriculture

shop work and found he loved farm mechanics.

He practiced his welding daily and his efforts were finally rewarded at the state contest.

## Goes On to College

Our little story does not end here. The young wheat farmer talked with several professors while at the state contest here and found he still had a lot to learn. So he decided to attend college. With four years at K-State under his belt, the boy returned to western Kansas to eventually become one of the best wheat farmers in the state. He received several offers from welding firms, but was content to own his own farm shop which he made available to all farmers in his area.

This is not a true story, but it is

typical of the educational transition of farm boys through high school, FFA, vocational ag, and college to the final result of becoming better farmers and leaders.

Each spring over a thousand blue and gold jacketed Future Farmers of America invade Kansas State, just as the young wheat farmer did, to attend the state FFA convention.

For many of the boys the trip to Manhattan is their first time away from home. The convention broadens their interests and shows them there is more to learn about farming. For some it is just a good opportunity to get away from high school for a few days. To others it presents an opportunity to meet college girls. Above all, the state convention serves as a means for farm boys to develop confidence in their ability as farmers,

(Continued on page 34)



THREE OF THESE state 1951 FFA officers rating local chapter programs or work with L. B. Pollom, advisor, are now attending K-State. They are Wayne Thies and Richard Reinhardt (standing second and third from left) and Marvin Decker (sitting far right).



# Congratulations from ....

*Secretary, Kansas State  
Board of Agriculture  
Roy Freeland*



IT IS WITH pleasant anticipation that agricultural people over the state look forward each year to the Little American Royal. Certainly, there are many reasons why this annual event is ever popular with Kansas farm people.

There is no substitute for personal contact with livestock. The Little American Royal gives that contact. At the same time, it symbolizes for the entire population of Kansas the color, the wealth, and the glory of our great livestock enterprise.

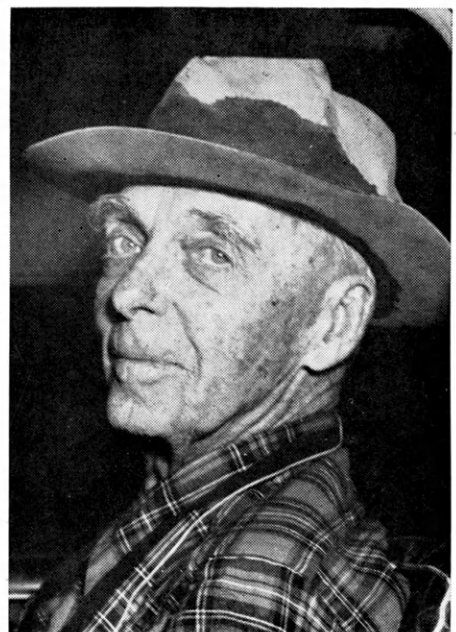
Through the years, it has been my pleasure to witness and participate in quite a number of these shows. I have been impressed by the continuing high interest and the steady improvement in the splendid educational and entertaining features.

Kansas State college and all of Kansas agriculture are deeply indebted to the energetic students and their faculty advisers who plan and enact so masterfully this living pageant of Kansas agricultural advancement.

*Pioneer Kansas Stockman  
Dan Casement*

*(Mr. Casement gave the Ag Student these comments about the Little American Royal three weeks before his death.—Ed)*

I HAVE ATTENDED the Little Royal every year. It has always improved and when moved to the Field House it made a most attractive display. I am a firm believer in exhibiting to improve the product we are producing, which is beef, and I am equally in favor of encouraging young men and women in the art of fitting and showing. The art of fitting is far more important than the art of finishing. It is fine that boys and girls develop skill in grooming and exhibiting. If you are going to excel you have to take some pride in putting your best foot forward. I am wholly in favor of developing this skill in fitting and presenting animals in exhibition.



# Silver Anniversary Style

By J. E. Zimmerman

**F**ANCY HORSES and slicked up cattle will join hands March 28th at the silver anniversary of the Little American Royal in K-State's new two-million-dollar Field House. The show will get under way at 7:30 with the Grand Entry of 150 students and their animals.

After three years the Little Royal is becoming better accustomed to its new home, the Field House. A birthday cake in the form of a large centerpiece constructed from dyed sawdust will add splendor to the anniversary Royal.

As an added attraction, Capt. Robert J. Borg from Fort Riley will be featured with his dressage horse. The dressage is a highly intelligent riding and dancing horse. The horse performs with only a slight touch of the reins as if no rider were on his

back. The Clay Center high school band will work out several numbers for the dressage horse to dance to. The horse's fancy steps and change of pace all will be performed smoothly in rhythm with the music.

Borg admits training dressage horses is no easy task, yet his efforts have brought excellent results. He rode to the European championship in the equestrian contests at Hamburg, Germany, last year. Borg trained his first dressage horse in 1938 and since has become a well-known expert in his field. He just returned from Mexico City where he gave an exhibition at the inauguration of the President of Mexico. In 1948, Borg trained all the dressage horses for the United States team in the Olympic games. He placed second in the team class and fourth as an

individual in those games. In the summer of 1951 he started training new riders for the Olympic team and served as both coach and trainer for the United States equestrian team in the 1952 games.

**Heartiest congratulations on the 25th anniversary of the Little American Royal on behalf of The American Royal Association Governors, Officers and Directors.**

**Harry Darby  
President**

One hundred and fifty-one students have registered and drawn animals for the Little Royal. Students drew animals February 7 and immediately began their daily trips to the College barns to groom and train their animals.

The contestants, sixty per cent of whom are enrolled in Dairy Husbandry and Animal Husbandry, had the choice of the kind of animal they wished to show. The drawing determined individual animals to be shown.

The Little Royal will have both a Dairy and Livestock division. There will be a heifer and cow class of Ayrshire, Guernsey, Holstein, and Jersey breeds. Beef cattle, sheep, swine, and horses will be shown in the livestock division. The animals are some of the best from the College herd.

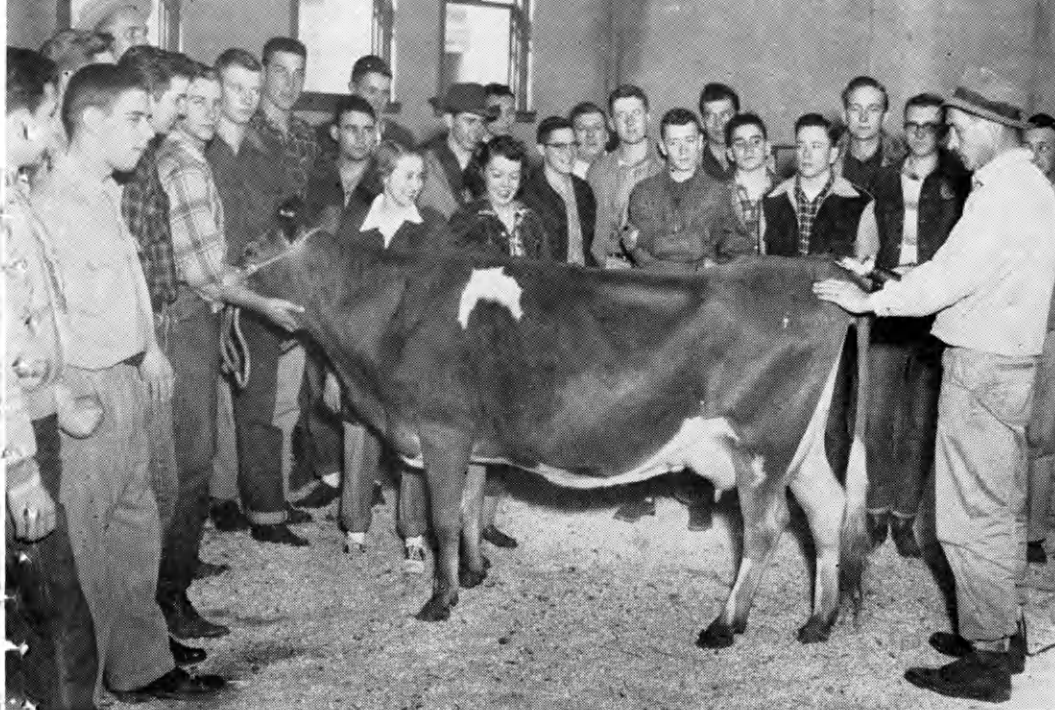
Joe Armstrong, publicity co-chairman, estimates some students will spend two to three hours a day grooming and training their animals to lead and stand at post properly. "This will give the boys and girls good practical experience which could not be gotten elsewhere," Armstrong said.

## First Step . . .



HUGH McDONALD, left, pulls a cow out of the hat held by Phil Lukert at the drawing which started activities toward the Little Royal this spring. Aggies interested in showing livestock drew numbers February 7 for College animals to fit and show.





**SAM BEHNER**, dairy herdsman at K-State, gives tips on getting a heifer ready for the show ring to students who will participate in the Little American Royal to be held in the Field House March 28. Block and Bridle and Dairy clubs are in charge of the Royal.

Herdsman and students with fitting and showing experience have been assisting the competitors. The College will stand the expense of the improvement program and the students will do the work.

Equal emphasis will be placed on fitting and showmanship by the judges the night of the Royal. However, in close placings, consideration will be given to the general improvement the student has made on his animal during the seven-week fitting and showing period. No consideration is given to the individual excellence of the animal.

The Royal will be a two-hour show starting at 8 p.m. Top herdsman and Midwest stockmen will be chosen as judges.

### Judging in Four Rings

Four rings are to be set up in the Field House for judging—two for dairy and two for livestock. After all the classes have been judged, the championships in the various breeds of the Dairy show and divisions of the Block and Bridle show will be picked. The climax will be the selection of the grand champion dairy showman and grand champion Block and Bridle showman. The trophy in the Block and Bridle show will be presented by the Kansas City Stock Yards Company, and the Kansas City Chamber of Commerce will present the dairy trophy. Trophies in the different divisions of each show will

be presented by the American Royal Live Stock Show in Kansas City. The Little American Royal is awarding ribbons to all contestants.

In order to give spectators a good view of the Royal activities, only the balcony of the Field House will be used. There will be plenty of reserved seats for all who desire them. Special ticket prices are being quoted for groups of 4-H and FFA members.

The Little American Royal, primarily financed by ticket sales, is

sponsored by the Dairy club and the Block and Bridle club at K-State. Prof. D. L. Mackintosh and Dr. G. H. Beck are faculty sponsors. The executive committee for the clubs is made up of two men from each club. For this year's show they are Warren Prawl, Severance, chairman; Harold Reed, Lyons, vice-chairman; Henry Gardiner, Ashland, secretary; and Richard Brown, Salina, treasurer.

The executive committee is assisted by: Entertainment, Wayne Walters, Lawrence; Publicity, Joe Armstrong, Trent, Texas, and J. E. Zimmerman, Olathe; Decorations, Norman Schlesener, Herington; Tickets, Phil Lukert, Topeka; Properties, Richard Pickett, Topeka; Program Book, Harold Tuma, Narka; Judges, Maurice McClure, Walton, and William Bergman, Paola; Entries, William Tilgner, Gypsum, and Milton Wendland, Randolph; Circulation, Duane Traylor, El Dorado; and Prizes, Ray Sis, Belleville.

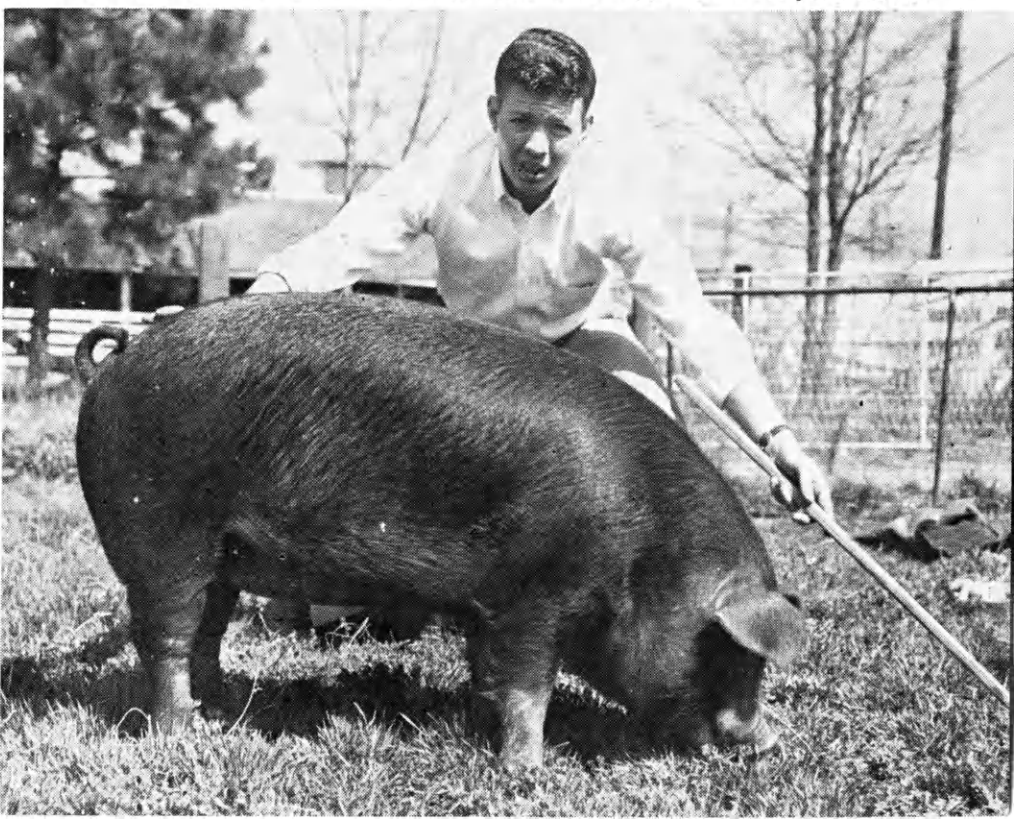
Students showing the various classes of stock in this year's Royal are as follows:

### Beef Cattle

James Anderson, Cleburne; Arland Benteman, Randolph; John J. Brink, Le Roy; Melvin Brose, Valley Falls; Norval Deschner, Newton; Robert Dickinson, Gorham; Jay Dooley, Topeka; Donald Dufford, Minneola;

(Continued on next page)

**LONG HOURS** of training and fitting were richly rewarded for Bob Rizek, Ad Administration senior shown here with the animal he drew to exhibit at the 1952 Royal. Bob's entry was judged champion in swine division based on animal's appearance and performance.



Bill Ericson, Marquette; George Gammel, Cottonwood Falls; Helen Gardiner, Ashland; Bud Giffen, Kansas City; Robert Glanville, Cottonwood Falls; Richard Hartman, McCune; Charles Imthurn, Maplehill; Jimmie Jackson, Americus; Einer Johnson, Smolan; Eldon Johnson, Assaria.

Charles Keller, Ford; David Kerns, Baldwin; O. Lowell Lagasse, Concordia; Mike Lair, Piqua; Waldo Lang, Chapman; Eddie Larson, Vesper; Jim Laughlin, Goodland; Clifford Mayo, Garden City; Jim Mayo, Wichita; Hugh J. McDonald, Waverly; V. E. Mulligan, Omaha, Nebraska; Dan Pherigo, Cottonwood Falls; Richard Pickett, Topeka; Phillip Randall, Ashland; Roger Rankin, Bernardville, New Jersey; Tony Renollet, Sterling; Charles Sackett, Tonganoxie; Robert Sayre, Cottonwood Falls; Francis Sweat, Smith Center; Don Tillotson, Shields; John Unruh, Hillsboro; Ralph Waite, Winfield; Wayne Walter, Lawrence; Milton Wendland, Randolph; and George Wingert, Wellsville.

#### Hogs

Virginia Balthrop, Wichita; Ed Chase, El Dorado; Marvin Cranston, Winfield; Don Dauber, Burns; Jerald Draney, Powhattan; Maynard Engle-

brecht, Yates Center; Ernie Heitschmidt, Codell; Dale R. Hill, Burrton; John McKenna, Kingman; Tom Maxwell, Aspinwall, Pennsylvania; Bill Nelson, Marquette; John Oltjen, Robinson; Sherlund D. Prawl, Severance; J. R. Pringle, Yates Center; Kenneth Reinert, Bloom; Richard Reinhardt, Chanute; Norman E. Schlesener, Herington; Don Slade, St. John; Raymond Sis, Belleville; Eddie Swiercinsky, Belleville; Dick Webb, Lincoln, Nebraska; D. Wayne Zimmerman, Olathe; and J. E. Zimmerman, Olathe.

#### Sheep

Clifford Rizek, La Crosse; David Brenner, Randolph; Nolen Crusinbery, Topeka; Bob Davies, Reading; Mark Drake, Winfield; Richard Gartner, Independence; Donald Kihn, Ellsworth; David Lindell, Prescott; Loris Luginsland, Dunlap; Duane Miksch, Oswego; Glenn Neis, Wellsville; Warren Nichols, Alton; Robert Oltjen, Robinson; Donald K. Peterson, Yates Center; Ernst Schmidt, Freeport; Gerald Schweitzer, Princeton; Robert L. Vernon, Oberlin; Leo Wiederholt, Princeton; and Philip Wiederholt, Princeton.

#### Horses

Phil Arnold, Ashland; Marvin Cohn, Paterson, New Jersey; Dee Follis, Hoxie; Rick Khankan, Aleppo, Syria; Irwin Sipkin, Brooklyn, New York; Max Teeter, Marquette; and Gerald Treas, Piper.

#### Dairy Cattle

George W. Atkeson, Manhattan; Clarence Creger, Scammon; Allan Heath, Coffeyville; Kenneth Kirton, Iola; Ronald A. Miller, Partridge; Martin Mugler, Oak Hill; Garth Renken, Lebanon; La Verne Seglem, Towanda; Richard Ahlvers, Glen Elder; J. C. Breithaupt, Baldwin; John Burnside, Garden City; Don Hylton, Overbrook; Robert Playter, Great Neck, Long Island; Jerry Thompson, Ft. Scott; Ernest E. Butell, Baldwin.

Kenny Dannels, Wichita; Gene Dickinson, El Dorado; George Dale Hewitt, Valley Falls; Loren Lave-rentz, Bendena; James Quint, Bunkerhill; William R. Stutz, Utica; Mason Ely, Superior, Nebraska; Leon Marrs, Longford; Clifford Meireis, Olathe; Duane Traylor, El Dorado; Carldon Broadbent, Beloit; La Vonne Campbell, Conway; Dale Gigstad, Effingham; Robert Hull, El Dorado; John Kugler, Manhattan; Ray Rasmussen, Vesper; David Ruth, Johnson; Walter Shoen, Cawker City; Millicent Schultz, Pawnee Rock; Joe Armstrong, Trent, Texas.

Richard Baxter, Arkansas City; William Bergman, Paola; Lyle Lehman, Castorland, New York; Damon Slyter, Fontana; Kenneth Unruh, Larned; Rex A. Bantz, Howard; Eugene Harter, Bern; Herman Knoche, Stafford; Alan Phillips, Manhattan; Jerry Shadowen, Olathe; Robert Shue, Fredonia; Albert Spencer, Emporia; William Tilgner, Gypsum; Harold Tuma, Narka; Lloyd Christie, Paola; Charles Pretz, Olathe; Joe Roesler, Claflin; Floyd Stumbo, Lawrence; Leonard Slyter, Paola; Ruben Torres, Cartago, Costa Rica; Rodney K. Unruh, Larned; Richard L. Wieland, Morrowville; G. R. Stryker, Albuquerque, New Mexico, and Cecil E. Rhoades, Burlington.

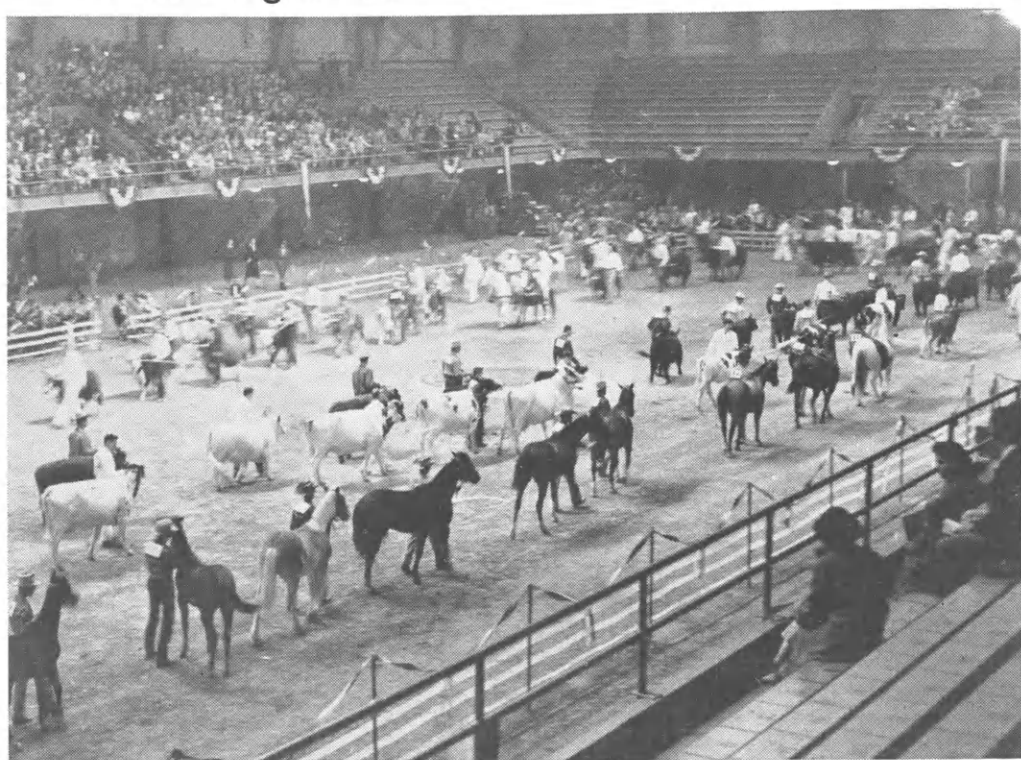
"There's no doubt about it—he's going to the dogs."

"Oh, I'm sorry to hear that!"

"Good friend of yours, eh?"

"Not at all, but a lot of dogs are."

## Four Ringer . . .



THE GRAND ENTRY starting the Little American Royal last year in Kansas State's new Field House. Showing the livestock and horses in an arena such as this makes the show more like the big American Royal and gives added experience to the young participants.



# Tokens of Tradition

*By Chuck Bellman*

A BIRTHDAY CAKE in the form of a huge centerpiece constructed from dyed sawdust will mark the 25th anniversary of the Little American Royal March 28th. Because of the wide interest it attracts, the centerpiece committees strive each year to out-do the previous committee. For weeks they work on the design and then they stay up all night before the show, carefully arranging colored sawdust into a circle of brilliance.

This year's centerpiece, naturally, will feature a large white cup with the figure "25" inscribed upon it. Above the cup a red banner will sport the words "Kansas State" in white letters. Below the cup another red banner will carry the words "Little American Royal" in black. The background will be blue.

Centerpieces became traditional attractions at the Little American Royal when, in 1929, someone sug-

gested that a color design on the floor would make the show more attractive. Besides being attractive the centerpiece also serves to conduct spectator traffic, as no one can walk between the show rings. This makes for less

confusion when the animals are being paraded.

Each year, months before the show, a special committee of five men selects a design for the centerpiece and, if approved by the executive com-



mittee, it is used at the show. Next the chairman has actual photographs taken of the plan. It is sent to the Illustrations department where it is reproduced on a slide and projected on a 15-foot screen. This is a problem because few buildings are large enough for a projection of that size. The design is then traced and made into an actual pattern on which the dyed sawdust will be packed.

Other photos are sent to the American Royal at Kansas City. They are embossed on the ribbons and trophies given at the show. Another is sent to the program committee to be printed on the programs given out at the show.

The materials used in the centerpiece also are traditional, but rather unique in their use. They consist of approximately 30 cubic feet of white sawdust and about 50 three-ounce packages of dye. The sawdust comes as wood shavings and must be proc-

essed by repeated chopping and pounding in a hammer mill until the proper texture is obtained. If it is not of the right granulation the dye will not be as effective.

"It takes a five-man working staff four hours to dye all the sawdust," Norman Schlesener, 1953 committee chairman, reports. The large steam-heated boiler in the meats lab is used to mix and dye the sawdust. It is then spread out on the floor to dry and put into sacks for later use.

At the Field House the first step in making the centerpiece is a six-inch layer of white sawdust. The 15-foot design is put on next and serves as a pattern for hand-packing the colored sawdust. Fine lines are hard to obtain, so the design must be constructed with great precautions or the figure appears distorted.

After completion, the centerpiece is sprayed with water to bring out



gested that a color design on the floor would make the show more attractive. Besides being attractive the centerpiece also serves to conduct spectator traffic, as no one can walk between the show rings. This makes for less



the colors and to keep the sawdust from blowing.

"The centerpiece tries to show no preference to any department of the Ag School," Schlesener states. "We either represent the whole Ag School

(Continued on page 43)

# Past to Present

*By Leonard Slyter*

**W**HAT STARTED as an exhibition show for Farm and Home Week visitors has blossomed into the biggest event of the school year for K-State's Ag students.

That show, the Little American Royal, celebrates its 25th anniversary this month with a mammoth fitting and showing contest and entertainment in the new two-million-dollar Field House—a far cry from the first show.

The first Little Royal was held back in 1924 as a livestock parade and exhibition for the benefit of people attending Farm and Home Week. It was sponsored by the Animal Husbandry department in cooperation with the Block and Bridle

club. In 1927 the show was made a student contest through the combined efforts of the Dairy department and the Dairy club to test their ability to fit and train animals for the show ring. Two years later the Block and Bridle and Dairy clubs combined their shows. The show continued to be an attraction for Farm and Home Week visitors through 1942.

Originally started as an afternoon event, its wide popularity resulted in expanding the show to an evening program, with admission by tickets necessary to assure guests of seats. An admission charge was first made in 1935 when the guests were "taxed," as it was then called. It was in that same year that assistance in staging the show was begun by the

Agricultural Association, which includes all Ag students.

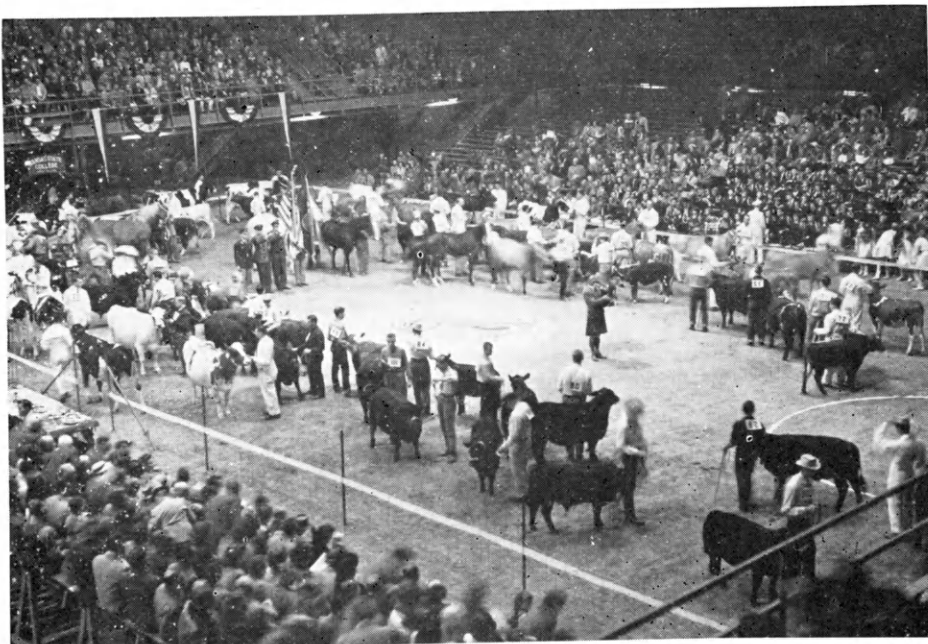
Because of a small student enrollment during World War II, the Little American Royal was discontinued after 1942. It was reinstated in 1948 under the co-sponsorship of the Dairy and Block and Bridle clubs. The show was held in the spring of the year for the first time in 1948. Previously, the fitting and showing contest was held in February during the annual Farm and Home Week. Having the show in the winter made it difficult for the contestant to fit his livestock entry properly, because the animal's hair does not shed readily in cold weather. Eleven days were allotted for the competitors to get their animals ready for the show ring in 1924. Now six or seven weeks are allowed. This greater amount of time given the contestants is another factor in improving the Little Royal.

## **Faculty Back Shows**

Past shows have been readily supported by the herdsmen, whose suggestions and help have contributed to the success of the show. Department heads and staff members have given their enthusiastic support because of the practical experience given students in handling and showing animals. In fact, several faculty members were grand champion showmen in past Royals. In 1936, C. Peairs Wilson was champion showman with a Hampshire ewe. He now is assistant director of the Experiment Station. R. B. Cathcart won the grand champion award showing a Percheron mare in 1933. He now is associate professor of Animal Husbandry.

Years ago after the three-hour show was over all the contestants gathered in the meats lab for a show-

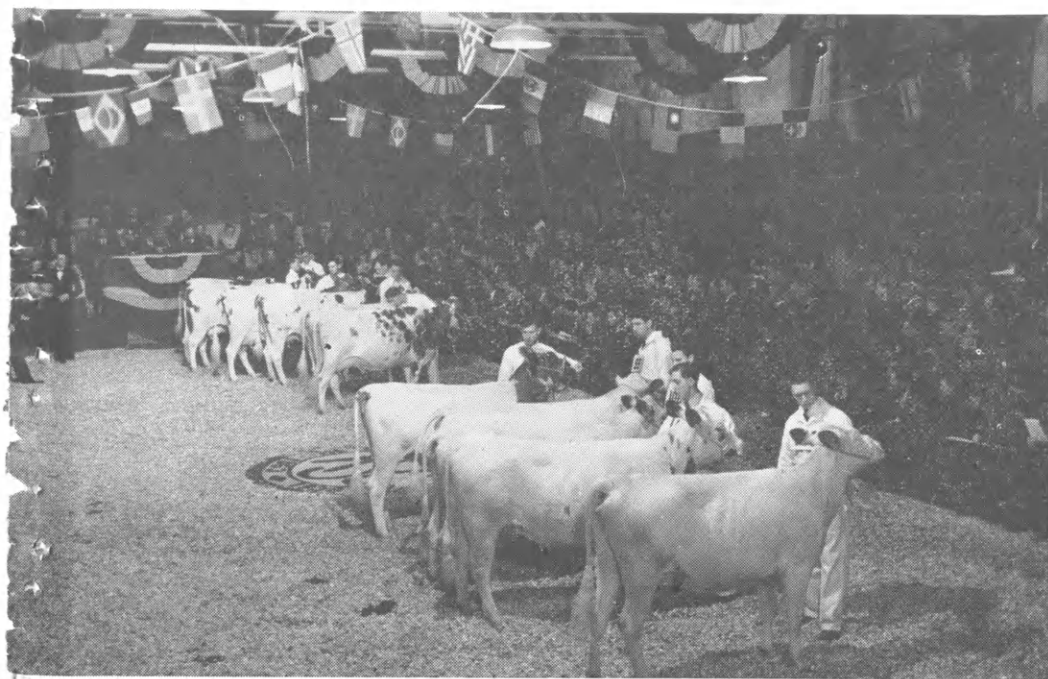
## **Field House First . . .**



**ONE HUNDRED SEVENTY** contestants competed in the 1951 Little American Royal which was the first non-athletic event ever held in K-State's new two-million-dollar Field House. That year only two rings were used, but now four rings are used to move the show along.



## '38 Royal . . .



A SCENE from the 1938 Little American Royal, then held in the pavilion between East and West Ag. Since then, when the Little Royal was only 14 years old, improvements have been made until today it has many aspects of the American Royal in Kansas City.

men's feed. Prominent stockmen or members of the faculty made short talks.

The Little American Royal now is the biggest event of the year for Ag students at K-State. It was recognized as such when in 1936 over 100 contestants and 18 classes of livestock were shown. It now is the only non-athletic, student-sponsored attraction held in the huge two-million-dollar Field House. Before 1951, the show was held in the livestock pavilion between East and West Ag. At that time the pavilion had permanent bleacher seats around the sides and the show was held in the north section of the building. The pavilion lacked the capacity needed to seat all the people desiring to see the show, however.

### Comedy in 1935

Comedy was introduced to the Royal in 1935 by a special fitting and training class. A mixed group including a donkey, a turkey, a hog, a dog, and a goat was shown by College students. The donkey won in this division and he was even modest enough not to hee-haw about his accomplishments. A little king and queen contest was staged several times. Only children of the Dairy club or Block and Bridle members

were eligible. In 1932, a girl pulled three and one-half pounds of milk from a cow in two minutes to win top honors in a coed milking contest at the Royal.

### Loudspeaker Added

A special feature was added to the Little Royal in 1934 when classes and winners were announced over a public address system. Before 1937 only a single show ring was used in which classes were shown. However, in 1937, a two-ring system was used—one for the Animal Husbandry classes and the other for the Dairy classes. Last year for the first time four rings were used. Since a large number of contestants were competing, this four-ring system tended to speed up the show, making it of more desirable length for the guests. This is considered to be one of the major improvements of the Little Royal. All spectators were seated in the balcony and all bleachers were removed from the arena floor.

Since 1930 the grand champion showmanship award has been given to the overall livestock champion showman in the Animal Husbandry division. This part of the show is sponsored by the Block and Bridle club. Since then contestants have won this award five times with swine

entries, and four times each with sheep, horse, and beef entries.

In the Dairy Husbandry part of the show, sponsored by the Dairy club, the grand championship award given since 1927 has been won by contestants with bull entries three times; heifer entries, three times; and cow entries, seventeen times. The bull class is no longer part of the dairy show. Grand champion showmen in the past have received trophies as their awards. The trophies have been presented by the American Royal, the Kansas City Stock Yards company and the Kansas City Chamber of Commerce, while the ribbons are provided by the College extension service.

### Royal Traditions

Several traditions have become attached to the 25-year-old Little American Royal. The centerpiece, always an annual feature of the show, is designed and laid out by members of the sponsoring clubs. The centerpiece, made of dyed sawdust, has been the highlight of the show-ring floor. Another tradition of the show is the Grand Entry in which all the cattle and horses are paraded before the audience at the opening of the show.

Through the years some rather unusual coincidents have occurred in connection with the Royal. One took place in 1941 when Merrill Abrahams won the grand champion Animal Husbandry award on a swine entry after his twin brother Maynard had won the same award the previous year, also on a swine entry. Another coincidence made history in 1933 when a girl, Margaret Glass, won the grand championship award in the Dairy division. She is the only girl ever to have won a grand championship award at the Little American Royal.

### Showman Makes Good

Walter Lewis, a showman at the Little Royal during his college days from 1931 to 1935, is still a familiar figure in the show ring. He will judge the polled Hereford classes at Australia's Royal Easter show from March 27 to April 7 this year. The Royal Easter event is one of the famous livestock shows of the world. He now is in partnership with his father and brother on the Alfalfa

(Continued on page 44)

# Congratulations from....

*President, Kansas State College*  
*Dr. James A. McCain*

ON THIS 25TH anniversary of the Little American Stock Show I am happy to offer my commendations and deep gratitude to the students and faculty members responsible for this outstanding annual event on the campus of Kansas State college.

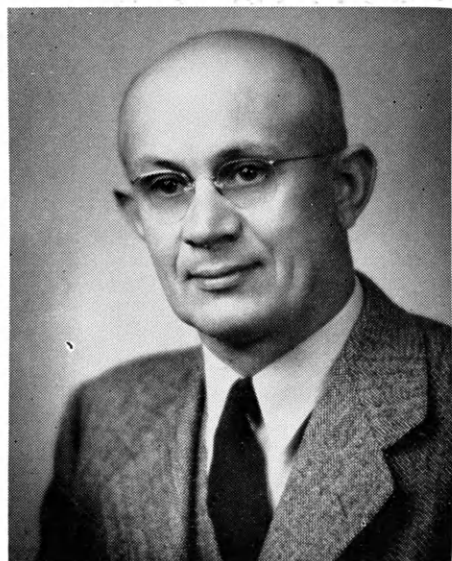
During my first two years at the College I have had the privilege of attending two Little American Royals, both held at the Field House. Both shows impressed me with the unusual professional skill of the students majoring in the animal industry departments and of our teachers in those departments. Much more than professional skill was involved in these shows; the participating students manifested a pride and a zeal indicative of a fine morale and *esprit de corps* among the entire group. This spirit is a long-standing and widely recognized tradition of our entire School of Agriculture.

The Little American Royal is not only a first-class livestock show but a unique laboratory in student participation and student citizenship as well. Even a casual observer can't help being impressed with the vast job of administration and organization which is exacted by the Little American Royal, and the large volume of work required to hold it each year. The professional polish with which the show is carried on does enormous credit to all the students responsible for it.

During its first twenty-five years the Little American Royal has become easily one of Kansas State's most cherished and spectacularly successful traditions.



*Dean, School of Agriculture*  
*Dr. Arthur D. Weber*



THE LITTLE AMERICAN Royal is one of the foremost student activities at Kansas State. Namesake and replica in miniature of the famed exposition held annually in Kansas City, it provides an incomparable opportunity for students to gain knowledge of every phase of a livestock show.

It may seem trite to say that each Little American Royal has been "bigger and better" than the one that preceded it. Nevertheless, I am confident that the interest of participants and spectators as well as the number of animals shown substantiate such a claim for this colorful, yet exceedingly practical, student project.

Credit for the outstanding growth and improvement of the Little American Royal belongs to the students responsible for this activity since its inception 25 years ago, and to their faculty advisors. They deserve special commendation and praise for their authentic portrayal of the larger show by their fitting and showing of farm animals. Also, I wish to extend my hearty congratulations and best wishes to those whose interest and effort provide assurance that the scope and quality of the Little American Royal hoped for by its founders will be attained in 1953.



# 1910 ALFALFA LAWN FARMS 1953

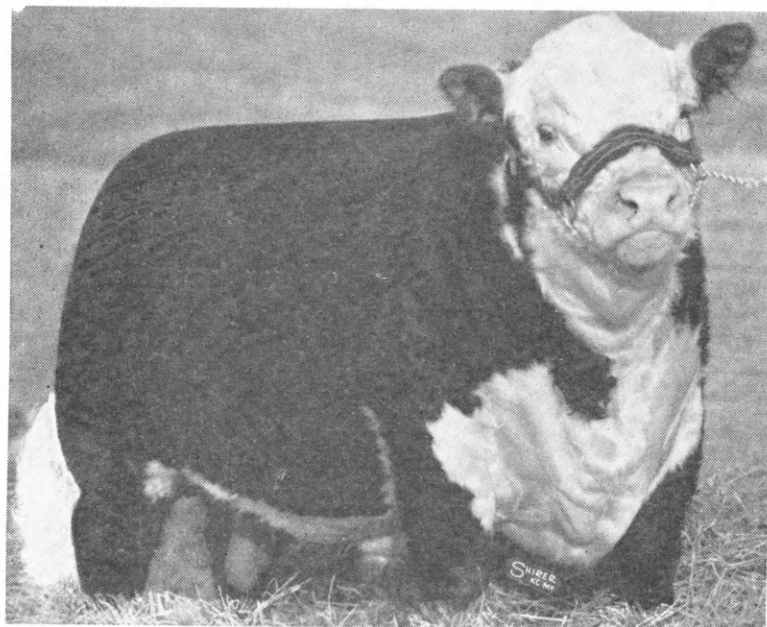
## *Herefords Supreme*

*"What makes ALF is what ALF makes."*



ALF Mixer Return 29

Member of the 1st prize Get-of-Sire class at the 1952 National Polled Hereford and American Royal Shows.



DCF Larry Domino C

1st Jr. Yearling Bull and Champion at the 1952 National Polled Hereford Show. Also reserve champion at the 1952 Kansas State Fair.

The above two bulls will be used as our Junior herd sires.  
Come and see their calves

*Visitors Always Welcome*

J. M. LEWIS & SONS

LARNED, KANSAS

# Agronomy Reins

By Diane Blackburn

Forestry was the first interest of Dr. R. V. Olson, new head of the Agronomy department. Not until he had finished a two-year forestry school did he become interested in soil science and chemistry and decide to make these subjects his lifetime occupation.

After completing forestry school, Olson went to North Dakota State college where he received his bachelor of science in 1941 and his master's in 1942. Then Olson spent four years in Wilmington, Delaware, as a production chemist of explosives for the Hercules Powder company.

He later was research assistant of the Department of Soils at the University of Wisconsin. Olson received his doctor's from the University in 1947.

In February, 1947, Olson came to Kansas with his wife and two children, Nancy, 8, and Peter, 5, to become associate professor of soils here at Kansas State. Last July Dr. Olson reached his present position as head of Agronomy. He replaces Dr. Harold Myers who is now assistant dean of Agriculture.

## Continues Research

Dr. Olson has spent five and a half years in teaching and research. He has assisted in establishing soil-testing laboratories over the state. Olson has been and still is continuing research on iron chlorosis of sorghum, which has grown in some particular soils in southwest Kansas. He is studying how to correct the iron deficiency



Dr. Raymond V. Olson

through laboratory, greenhouse, and field studies.

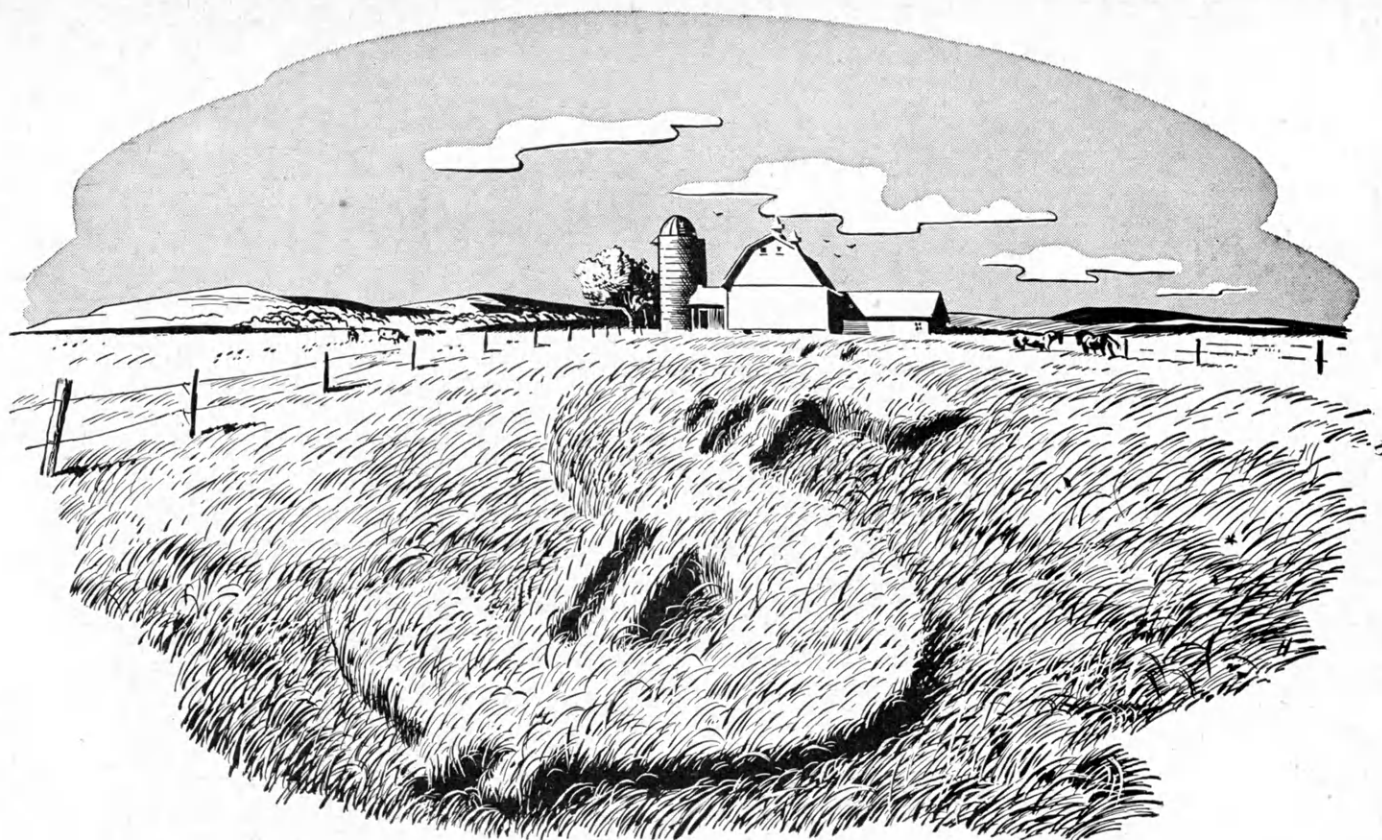
Olson says his work as department head is not only administrative, but includes public relations and dealing with the public in general. Some of Olson's duties as Agronomy head include aiding agronomy students in planning their curriculums, helping with College agronomy research, and giving recommendations to inquiring

farmers on agronomy problems. The Agronomy department has 34 full-time workers and 13 part-time, Olson says.

William Penn's father wrote the first code of tactics for the British Navy.

Another nice thing about silence is that it can't be repeated.





## **Grass can keep us all "in clover"**

**Next to pasture**, a mow full of good hay rates first with most farmers.

Few feeds are as full of nutritive qualities as hay. Few feeds are so widely used in rations for dairy or beef cattle, hogs, sheep, poultry. And hay is one of the most inexpensive sources of minerals and vitamins—if its quality is high.

That's why grassland farming has done and can do so much to help farmers faced with growing labor and feed costs. Compared with other crops, grass requires much less time and effort to bring a valuable return. For farmers who take full advantage of the latest systems and machines, the returns are even more profitable.

**New Holland balers**, for example, are designed to give highest possible capacity.

The "77" twine-tie and Model "80" wire-tie both can bale up to 10 tons an hour. This speed makes it possible to harvest greater stands just at the right stage of curing . . . before hay can be weather spoiled by a sudden rain storm or by too many hours in the hot sun. It puts better feed in the barn in less time and with less trouble.

**Performance** of these balers on farms all over the country has won New Holland the title of "First in Grassland Farming." Today, farmers go to New Holland for the balers, forage harvesters, mowers, forage blowers and spreader-seeders they know will give them greatest returns from their grassland programs.

The New Holland Machine Company, a subsidiary of The Sperry Corporation.

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Each year, New Holland selects graduates of agricultural courses for training in engineering, sales and other fields of the farm machinery industry. For information, write to the New Holland Machine Company, Dept. Box 16, New Holland, Pa.



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# KANSAS ANGUS BREEDER INDEX

F. M. "Hap" Scarlett - - - Harper  
 Fairlawn Angus Farms - - - Ellis  
 Fred J. King - - - - - Ellis  
 E. J. Tatge & Son - - - - - Ramona  
 C. T. Eubank & Son - - - - - Coats  
 BlueLine Angus Farm—RFD 3, Junction City

## HEIFERS and BULLS for SALE

### HERD SIRES

Ever Prince 25th, Grandson of Black  
 Prince of Sunbeam  
 Eric I. J. F. 60th, Eileenmere Bred  
 Bull  
 Prince Exponian Blackcap H. V.,  
 Grandson of Prince Sunbeam  
 29th

### COW HERD FAMILIES

Eisa Trojan Erica; Blackbird Lassie;  
 Second Branch of Blackbird; Queen  
 Mother; Pride of Aberdeen; Ruby;  
 Blackcap Empress; Windsor Queen  
 Mother; Blackcap; Eris Kay Erica.

**Fairlawn Angus Farm**  
 John Egger  
**ELLIS, KANSAS**

## PHOTOGRAPHERS

Cameras  
 Films  
 Developing  
 and  
 an assorted  
 amount of camera  
 supplies

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 Camera Shop**

311½ Poyntz

## GREENLEAF SUDAN RELEASED

*By Dick Steffens*

**G**REENLEAF, a new variety of sudangrass which surpasses many existing varieties, is being released to qualified seed growers in Kansas for the first time this year by the Department of Agronomy at Kansas State college. Seed supplies should be sufficient by 1954 to permit Kansas farmers to plant the new variety.

The new sudangrass variety has shown good leafing and tillering characteristics and has out yielded Sweet Piper, Tift, and Wheeler in test plots. Greenleaf also matures

Leafy . . .



**GREENLEAF** sudan, developed by the Agronomy department, is being inspected by Dr. Robert C. Pickett.

later than most other commercially grown varieties. As a result it may be grazed longer in the fall. The new variety also is more resistant to leaf diseases, and has survived several bad chinchbug years while being grown in experimental plots.

Greenleaf is as low as Piper and

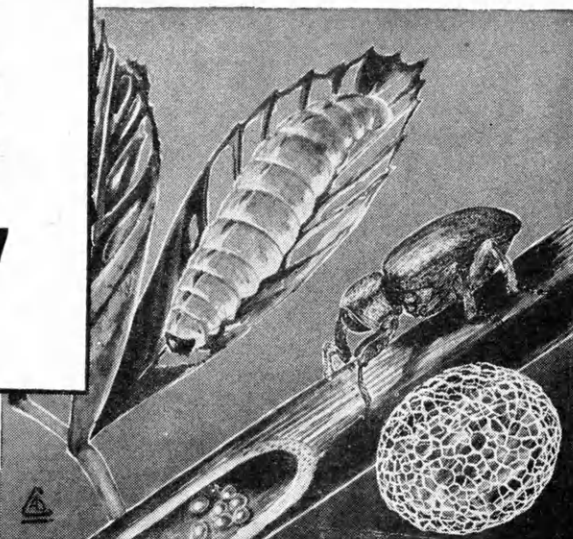
(Continued on page 34)



# insects

## YOU SHOULD KNOW

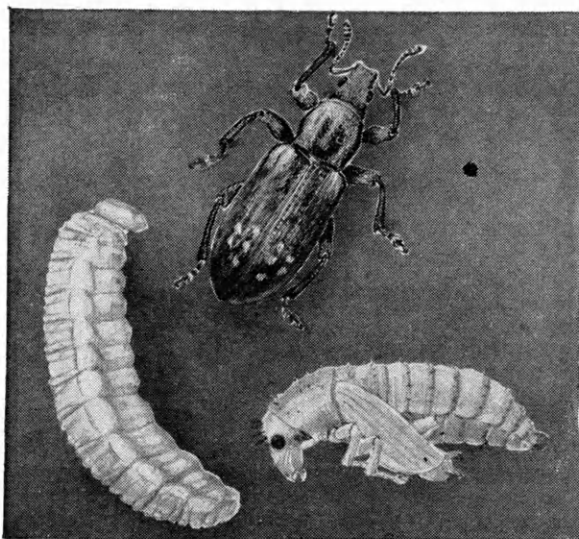
*How to Identify  
These Crop Destroyers*



### ALFALFA WEEVIL

*Hypera postica* (Gyll.)

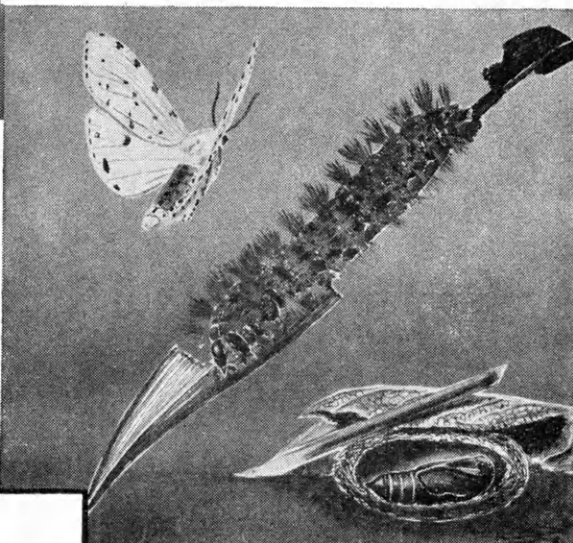
The Alfalfa weevil is one of the major insect pests of alfalfa in the United States. It causes greatest damage to the first crop. Adult females lay from 600 to 800 eggs in alfalfa stems. An imported wasp is a parasite of the larvae, but it does not destroy enough second crop weevils to prevent a large build-up of weevils the succeeding year.



### SWEETCLOVER WEEVIL

*Sitona cylindricollis* Fahr.

Sweetclover weevils are small, slender, drab gray snout weevils. They feed on tender plant leaves and stems, eating out circular notches. Natives of Europe, these insects were discovered in Canada in 1924, and have spread at a rate of more than 100 miles a year. They now extend over most of the United States and Canada. They move in armies of a hundred or more per square foot.



### SALT-MARSH CATERPILLAR

*Estigmene acrea* (Drury)

Mature caterpillars are either light green or dark brown. They attack alfalfa and other crops and travel in hordes. The adult female moth lays as many as 1000 pale yellow eggs from which hatch tiny dark brown caterpillars. There are three generations of pests in the southern localities, two in the Midwest, and only one in New England. In the South, the third generation causes the greatest damage.

# toxaphene

## DUSTS • SPRAYS

*For full color booklets showing  
these and other insects write to Hercules*



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FOR KANSAS ADAPTED HYBRIDS

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US 523W, K 2234 white, K 4, popcorn, US 13,  
K 1585, K 1859, K 1639, K 1784 yellow

Phone 5358

Manhattan, Kansas

## Greenleaf

(Continued from page 32)

Wheeler varieties in prussic acid content. Only through poor pasture management can the new variety poison cattle. Sudangrasses in general should not be grazed before they are 18 to 24 inches tall. Cattle should be pre-fed before being turned out to graze stunted sudangrass, the agronomists warn.

Greenleaf originated from a cross of Leoti-Sudan<sub>2</sub> x Leoti-Sudan<sub>4</sub> made by J. R. Quinby at the Texas Branch Experiment Station, and was brought to Kansas in 1940. After considerable testing and selecting, an attempt was made to increase seed stocks in 1950. However, the flood damaged lowland plots and the crop failed to mature on upland plots. In 1952 the California Agricultural Experiment Station produced 5,000 pounds of seed and 500 more pounds were produced in Manhattan. This seed supply will be distributed to the qualified seed growers this year so that by 1954 it is hoped that enough seed will be available for anyone desiring to plant the variety.

## Tomorrow's Top Farmers

(Continued from page 20)

speakers, and mechanics, or as livestock and crops judges. It gives them a chance to meet college men who have the education and equipment to better Kansas agriculture.

Next April 27 and 28 the College will again be host to the top farm boys of Kansas. It will be the 30th edition of the state high school vocational agriculture judging and farm mechanics contest.

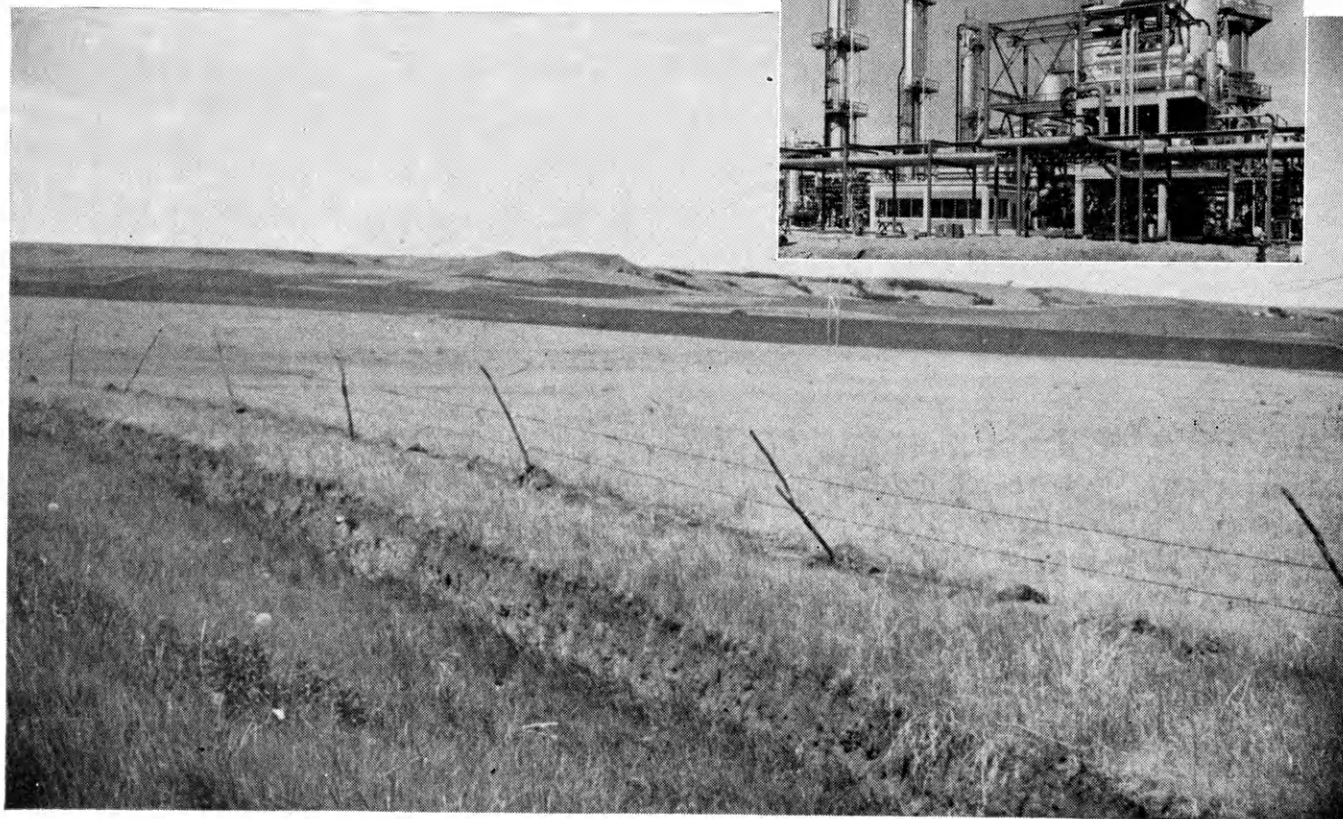
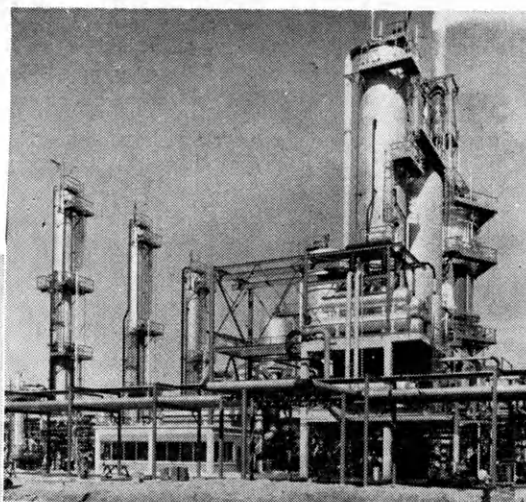
"The Ag Education department sponsors three contest events as a part of the 25th annual program of the Kansas FFA Association," Howard Bradley, associate professor, said. State farmer awards are made to two per cent of the 7,000 FFA boys in Kansas. These degrees are the highest that can be attained from the state and are made on the basis of a boy's farming program, leadership, and scholarship.

Public speaking and the FFA chapter contest are also part of the Ag Ed job in April. Each of the 192 chapters in the state submits a list of goals and how the members went about accomplishing these goals. These chapter programs are graded and each

(Continued on page 36)



**ENGINEERS** are planning to transform this flat Dakota prairie into what probably will be North Dakota's largest industry. A new Standard Oil refinery, with equipment similar to that shown, is scheduled to be operating at this Mandan site before the end of 1954. Capable of refining 30,000 barrels a day, it will provide the first major outlet for the Williston Basin production.



## OIL is making a prairie plant grow!



Before the close of 1954, a new Standard Oil refinery is scheduled to be operating at Mandan, North Dakota.

Behind this lies a story of Standard Oil's willingness to back its scientists' judgment with millions of dollars.

Two years ago oil was discovered in the Williston Basin. How much oil this basin eventually will produce is anybody's guess, but the current rate is only about 10,000 barrels a day. However, geologists, geophysicists and engineers, working in field and laboratory, have estimated that the basin holds a total of two and a half billion barrels.

On the basis of this estimate, Standard Oil has let a contract for the construction of a new refinery at Mandan and a 215-mile products pipeline from Mandan to Moorhead, Minnesota. A crude oil pipeline of 170 miles will be completed by the time the refinery is ready for operation and a pipeline gathering system of about 40 miles already has been built.

Construction activities such as these and the tireless search for oil are jobs that never end in the petroleum industry.

Young technical men at Standard Oil have found that there still are many exciting frontiers to explore with a company that is constantly building, constantly looking to the future.

### Standard Oil Company

910 South Michigan Avenue  
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# Here's What It Can Cost You NOT TO INOCULATE



## ...CLOVERS

Even "good catch" clover stands can cheat you out of yield quantity and protein feed quality. Healthy root nodules created by NITRAGIN bacteria help you get all the forage and all the proteins clovers offer. One test showed that 75 cents for inoculation produced 390 dollars' worth of extra clover seed. In other tests, *uninoculated* clovers were *serious failures*—cheating farmers out of pasture, seed and hay. It pays to always inoculate.



## ...SOYBEANS

Bonus bushels you can expect from inoculated soybeans pay well for the little extra time—for the few cents you invest. A New Jersey Experiment Station proved in field tests that inoculated beans produced 67.8% more yield. A Purdue bulletin claims inoculation can return more than 10 dollars per acre. 91% of the champion soybean growers questioned said they always inoculated. Those expressing a preference chose NITRAGIN 3 to 1.



## ...LUPINES

Lupine and other cover crop growers claim yield and quality improvement for fields that followed inoculated cover crops. The Georgia farmer pictured here produced an extra 56.3 bushels of corn from an acre which followed inoculated lupines. The other acre produced only 13.6 bushels, mostly nubbins and stunted ears. For soil-building success and crop-boosting power—don't gamble—inoculate with superior-strain NITRAGIN.

## Why This Can IS FAMOUS!

For more than 55 years farmers have used NITRAGIN with confidence based on successful experience. NITRAGIN carries a bacteria-count guarantee and results have made these superior strains famous. Ask seedsmen for the inoculant in the orange-colored can. Read the NITRAGIN guarantee.



## THE NITRAGIN CO., Inc.

3269 W. Custer Ave. • Milwaukee 9, Wis.

## Tomorrow's Top Farmers

(Continued from page 34)

chapter rated according to the amount of work done, the projects completed, and the contests won. "Kansas chapters range from 20 to 100," Bradley said.

The judging and farm mechanics contests are provided by the College Animal Husbandry, Dairy, Poultry,

Ag Engineering, and Agronomy departments. "Any high school boy may compete, even those not enrolled in vocational agriculture courses. Actually, girls are not prohibited from entering the contests," Bradley joked.

Loyal F. Payne, head of the poultry department, is contest chairman for this year.

Other features of this year's convention will be the 25th annual state FFA delegates' meeting in the College auditorium. Here new state officers are elected, new business conducted, and state farmer awards made. Fred Reed, national FFA vice-president from Hindsville, Arkansas, will address the delegates.

A huge banquet in Nichols gym will climax the two-day affair. Here contest awards are made and a meeting is conducted by the state FFA officers. Davy Mackintosh, Animal Husbandry professor, is widely known among FFA boys, since he is in charge of preparing food for the banquet. Celebrities such as the governor, the secretary of agriculture, the department heads, and the honorary state farmers are all invited to the banquet.

"FFA is built on the principle of achieve and award," Bradley related. "Many vocational ag students work four years for the opportunity to take part in the state convention. Winning a state contest, or becoming a state officer is a supreme honor for a farm boy."

"The state contest serves as some social advantage to FFA boys and advisors alike," Bradley said. "Both can exchange views and talk over farming in their various sections of Kansas."

## Advisor Has Influence

What happens to outstanding FFA boys? "The advisor has a big influence," Bradley explained. "A good advisor will recognize a boy's abilities and advise him to attend college and take a suggested course." Fifty per cent of the state farmer degree winners attend college. Thirty-seven per cent go to agricultural colleges.

According to Prof. A. P. Davidson, head of the Ag Education department, "The maximum number that can receive the state farmer degree is 140 and more than this have applied already. Many of these boys become top farmers and leaders."

Today the FFA has a large national organization, with 350,000 members and about 9,000 local chapters in the 48 states, Hawaii and Puerto Rico.

Hundreds of Kansas farm boys are taking advantage of FFA and later college, to become tomorrow's top farmers and farm leaders.



# 9 Out of 10 Kansas Farms HAVE ELECTRIC SERVICE

## —But How Many Farms ARE ELECTRIFIED?

Stretching across the Kansas plains are 52,032 miles of rural electric lines serving 93,594 consumers—all built within the past 14 years by 36 Kansas rural electric cooperatives. As a group these farmer-owned systems comprise the third largest distributors of electric energy in the state.

Although the expansion of electricity has made our farms well lighted and comfortable, yet only a very small percentage utilize this power to increase production, reduce labor, improve quality, save waste. Hence the major importance of rural electric power is yet to develop. A half billion-dollar market for appliances and equipment has been created in Kansas alone! Rise of Kansas rural power creates a vast new field for research and education.



"Willie Wiredhand"

## K-State Research Aided By Rural Electric Cooperatives

Through the Committee on Relation of Electricity to Agriculture (CREA) rural electric cooperatives and private power companies support research at Kansas State so that more efficient and effective use of electricity on Kansas farms may come about.

Progress in drying of hay and grains, development of the heat pump system of cooling and warming farm homes, and many other research projects testify to the value of Kansas State research in helping farmers to put power to practical use in their everyday farm operations.

### CREA Research

Rural electric cooperatives support CREA research as an important aid to the agricultural economy of Kansas. Already important contributions in the drying of grains and grass are returning dividends from this investment in research.

### Training 4-H Leaders

So many farm youth are interested in power on the farm that 4-H clubwork is needing additional leaders for rural electrification projects. Cooperatives are supporting efforts to train these leaders and help the youth of Kansas to a better understanding of electricity.

### Helping FFA Programs

New programs are in the making to assist Future Farmers of America to gain a better understanding of practical electricity. Clinics for vocational agriculture teachers are also being developed—all part of a program to keep Kansas among the leading agricultural states.



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**Kansas Electric Cooperatives**

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*State Association of Kansas incorporated, tax and interest paying electric cooperatives that came into existence because no one else would furnish farmers electric service.*

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THE KANSAS POWER AND LIGHT COMPANY

## Report from Denver

K-State's wool judging team placed fourth and the junior livestock judging team placed fifth at the Great Western Livestock Show in Denver January 16th and 17th.

The livestock team brought home a trophy for first in judging beef cattle. Team members were Raymond Adams, Maynard Englebrecht, Bob Oltjen, Dan Pherigo, Milton

Wendland, and David McKnight, alternate. They were selected from Don Good's class of 78 students in Principles of Livestock Selection.

Dr. T. Donald Bell selected the wool team from the wool grading class. Wool team members were Dale Davies, Bob Sayre, Keith Boller, and Bob Edwards, alternate.

## Hort Notes

By Frank Smith

WHAT KIND OF A LAWN will you have this spring? Will your lawn be a lush thick turf or will it be broken up with ugly patches of crab grass? Many people in Kansas are troubled by crab grass year after year and have given up trying to kill it. Don't give up—crab grass can be eliminated.

The best crab grass control is to establish a thick, healthy turf so that weeds cannot survive. Constantly be on the lookout for weeds in the lawn and eliminate them.

### Close Mowing Harmful

Mowing the lawn too close will encourage crab grass infestation. Most lawns should not be cut closer than one and one-half inches. But the lawn should be mowed regularly so the enormous amount of seed can not mature.

Fertilizing the lawn at the proper time will be of great benefit in eradicating crab grass. By fertilizing early in the spring the permanent grasses will have a head start on the crab grass. In the fall when the crab grass begins to brown fertilize again to give your cool weather grasses a boost.

Crab grass will not endure shade; therefore, by applying artificial shade in late May or June the young plants can be killed off. This is not practical for large areas, however. Plants should be shaded at least a week.

Kansas State has just completed some experiments on controlling crab grass with chemicals. A report on the results shows that out of four chemicals tested only one shows real promise. This chemical, PMA, is on the market now and can be supplied by any dealer in lawn supplies.

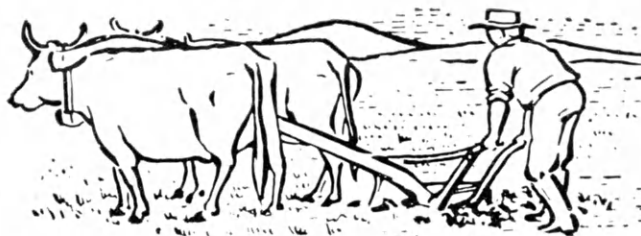
### Some Grasses Resistant

Certain grasses are known to resist the encroachment of crab grass. Proper choice of seed mixtures for new lawns will prevent a certain amount of crab grass infestation.

If the lawn is properly established and maintained the use of chemicals will not be necessary except in extreme cases. When a lawn has been consistently neglected the problem

(Continued on page 40)





# Breaking Away From Old Ways

## A New Way of Farming

FOR THE NEW GENERATION

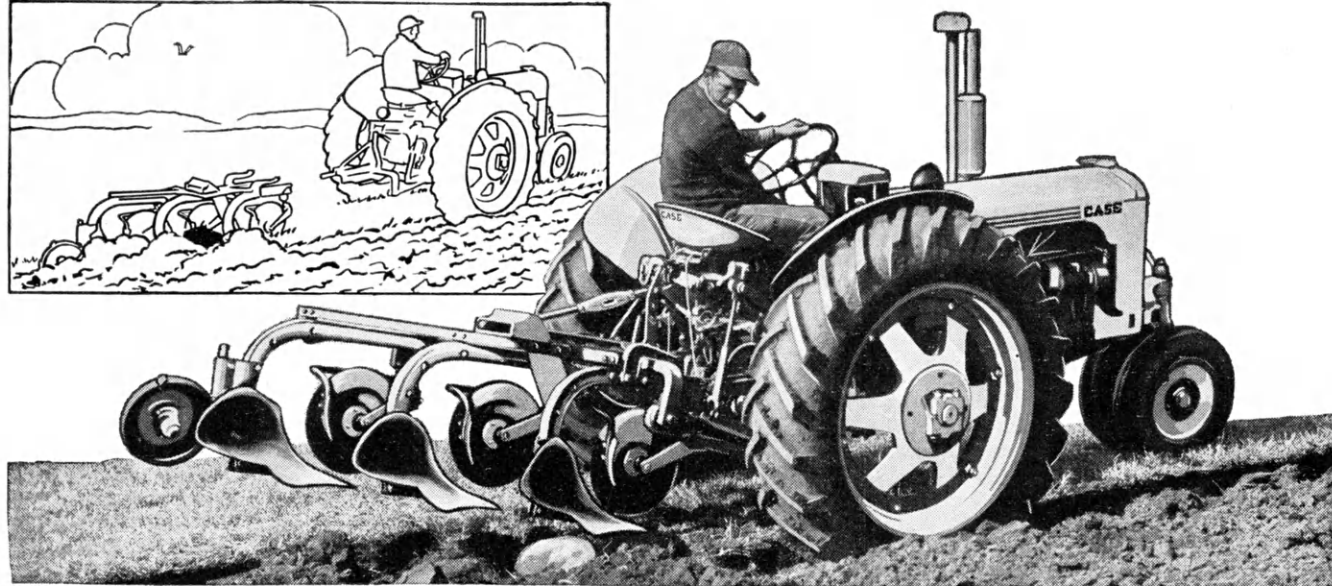
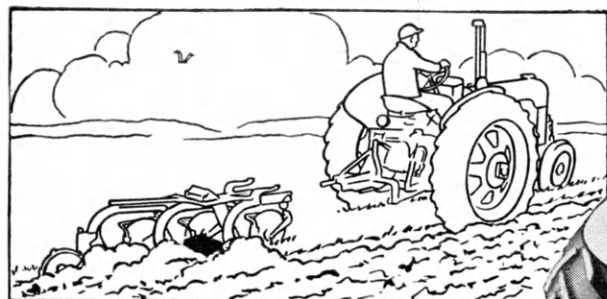
**EAGLE HITCH  
Farming**



In the day of the wooden plow, people said that iron plows poisoned the soil. In time, this superstition gave way to another: "strong iron," they reasoned, "strong soil." Today, science is supplanting superstition. Farmers plant on time with seldom a glance at the moon. Business methods now earn more money than b'guess and b'gosh ever did. Each step forward leaves a part of the old behind.

You, too, will find it so. As you progress from year to year through college, then advance in your own farming, in extension or research, in organized agriculture or allied industry, your achievement will be largely based on your ability to build from old ways to new and better ways.

The noblest and most vital service to your fellow man is in helping to feed him. Ever-mounting demands on land, time, and farmers make it mandatory to boost production per man, per machine, per everything else. To this end Case presents Eagle Hitch Farming with conveniences and efficiencies only dreamed of before. This is but a foreshadowing of advancements to come in this and following generations, as through all of the past 110 years.



In a revolutionary shift from present ideas, Case created the first tractor-mounted breakaway plow. Stumps and stones that would cripple the ordinary plow merely slip this one off its fore-frame. Driver recouples just by backing tractor. Then he lifts plow over obstacle with hydraulic power and goes on plowing. It hooks up in a minute and plows even-width furrows on contour curves. The Case Eagle Hitch Breakaway Contour Plow has indeed broken far away from old ways, far ahead of that which is usual today. J. I. Case Co., Racine, Wis.

# CASE

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SINCE 1842

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If they  
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Performance Record**



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Dress-Shirts

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317 Poyntz

*The Store for Men and Women*

## Hort Notes

(Continued from page 38)

becomes much too large to be controlled mechanically and chemical methods must be employed.

The problem is still not solved when crab grass is gone, for turf must be established in the bare spots or crab grass and other weeds will re-infest these areas. A temporary cover for these areas can be had by preparing the soil properly and seeding with a temporary grass until the permanent grasses can take over. Annual rye and others can be used for this purpose.

"And see the bear on the floor," said the explorer. "I shot it in Alaska. It was a case of the bear or me."

"Well," yawned the weary listener, "the bear certainly makes a better rug."



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You don't have to break them in to feel comfortable in your new Hyer Boots! Hyer's exclusive boot lasts give you a boot that fits the contours of your foot . . . smooth and glove-like over the instep, with spring steel shanks under the arch for extra support. Made of choicest materials and fully leather lined. Quality . . . even where it can't be seen! Try on a pair of Hyer Boots at your dealer's, or write:

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# **Service to Twenty Million Readers and Listeners—**

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**Both Kansas State College and Capper Publications have grown great through a common dedication to the service of agriculture. We have worked together through the years in our mutual efforts to make farm living pleasanter and more profitable.**

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THE KANSAS CITY KANSAN  
THE KANSAS FARMER  
CAPPER'S WEEKLY**

**MISSOURI RURALIST  
CAPPER'S FARMER  
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**OHIO FARMER  
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**If You Don't Know Diamonds,  
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**Paul Dooley  
Your Trusted  
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and the Nation**

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**SPECIALIZED CUSTOM  
FABRICATION**

## Going to College?

(Continued from page 15)

the best varieties of cherry trees or when to prune grapes? His best bet would be the brand new curriculum in Horticulture where he can learn all about plant diseases, plant propagation, pruning, nurseries, etc. He could major in Floriculture, Ornamental Horticulture, Pomology (that's growing fruit), or vegetable crops.

Ask Tubby if he would like to make lots of ice cream at one time. There's a whole course in making ice cream in the dairy manufacturing curriculum. You get into bacteriology, making butter and cheese, feeding cows, and the like. By picking the right electives you can become a dairy plant operator, a dairy plant manager, or a dairy products technician.

Say, aren't you reporter for FFA this year? You get into everything in Ag Journalism. K-State's Ag Journalism department is one of four accredited in the United States. All kinds of agencies, organizations, and publications are just crying for Ag Journalists. In fact, some are so desperate they're hiring women.

### Science Brains

Quite often a brain in chemistry and physics as well as soils will be tapped on the shoulder by some prof who suggests he enroll in Soil Technology. These guys become big shots in research for colleges or fertilizer companies. They usually go beyond a bachelor's degree, too.

Do you remember on one of our field trips the Voc Ag teacher pointed out some homes with trees hiding the house and bushes? There's a whole four-year curriculum about that, called Landscape Design. There are almost as many hours in architecture as there are in landscaping courses. Not very many enroll but they have select jobs when they get through.

The only full-size, honest-to-goodness, college-owned flour mill in the world is up here in K-State's milling department. With a bachelor's in Milling Industry, you could manage a mill (Milling Administration), design, install, and operate milling equipment (Milling Technology), or make chemical analyses and do research (Milling Chemistry).

And then there's the new milling

curriculum called Feed Technology sponsored by the feed industry. Chemistry, physics, nutrition, and bacteriology are all mixed up here. Since Dave was always so particular about what he fed his cows, maybe he would like to work out feed formulas scientifically. He could specialize in operation, nutrition, or administration.

As for part-time jobs the Ag School has about a dozen for freshmen around the College barns and farm. However, there are other part-time jobs on the campus and the businessmen hire many students. Don't count on too much working time, as most freshman schedules look like mine.

### Draft Deferment

Now about the draft. You get a one-year deferment for being in college. You take basic ROTC the first two years. In the middle of your first year you'll get a chance to sign a deferment agreement that will keep you in college.

Of course, it's a two-way contract. You must take advanced ROTC the last two years. However, you receive 90 cents a day while you do. You must keep your grades up and be in good standing with the College. You must notify your draft board about the agreement. And you are on active duty for two years after graduation plus another six years in the reserves.

Don't worry about not getting what you want in K-State's Ag School. K-State can get you started off in anything relating to agriculture, and that's no hay.

Well, I've got to start cramming for that chemistry test tomorrow. I hope this letter helps you out. You can get more info by writing to the Director of Admissions for the College catalogue of courses or to C. W. Mullen, assistant dean in the Ag School. The Voc Ag teacher and the county agent can help you, too.

I'll be looking for you next year.

Your pal,

Nick.

Whoever makes two ears of corn, or two blades of grass to grow where only one grew before, deserves better of mankind, and does more essential service to his country than the whole race of politicians put together.—Swift.



## Farm and Home Week

(Continued from page 17)

pounds each, but will bounce back on summer pasture.

Doane thinks summer slumps come largely from heat. He said tests show that cattle are sensitive to temperatures that go above the "comfort" zone, but that cold weather does not seem to bother them. Some of the millions of dollars spent to protect cattle from winter temperatures might have been more wisely spent to protect them from summer heat, he indicated.

Good-quality grass and hay with good-quality steers, Doane thinks, is the answer to producing enough beef cheap enough.

Crop improvement day attracted about 300 farmers to hear talks on certified seed production and to attend the golden anniversary banquet of the Kansas Crop Improvement Association. The day-long program included talks on stored grain insects, new crop varieties, alfalfa seed production, and New Zealand's grass by members of the college staff.

A tour through the College mill and bakery was conducted by Dr. J. A. Shellenberger, head of the milling department. Both the mill and the experimental bakery were in operation and about 60 visitors had a chance to see how new wheat varieties are tested.

## Consolidated Schools

(Continued from page 19)

They spent much of their extra time walking to and from school. Now a bus saves the long walk each morning and evening. Holcomb, by the way, has eight buses.

Activities carried on in the Future Homemakers' and Future Farmers' chapters encourage Holcomb's rural youth to become leaders. "Above all, they learn to be better homemakers and farmers," Farrell said.

A score of other activities ranges from the junior-senior prom to assemblies and an annual senior class trip. These all tend to take the drudgery out of school life and make it more interesting.

"School activities help greatly to keep the school and community in a position of mutual understanding," Farrell said.

According to an old French dic-

tion: "Society demands that the school be in its own image." The public created Holcomb and has stood by it, Farrell reports.

Evidently the parents of Holcomb's students, as all over Kansas, are working to see that their children have the best education possible. They realize that the future of America lies in her youth and as a result are constantly encouraging improvement of Kansas schools to meet changing needs.

## Tokens of Tradition

(Continued from page 25)

or choose a design that has no significance other than to act as tradition and add color."

In the past many interesting designs have been used. They have served such purposes as the celebration of the 75th birthday of the College, in which a large diamond was symbolic. In 1939 the heads of a heifer and stallion showed a relationship of the sponsoring clubs. At the beginning of World War II a large red and blue "V" for victory comprised the design. During the re-



mainder of the war years the show was discontinued. It was reinstated on the campus again in 1948.

This year the centerpiece will add much color and pomp to what indicates will be the largest Little American Royal ever staged in the history of the College.

Those responsible for this year's centerpiece are Norman Schlesener, chairman, Jerry Switzer, Walt Schoen, John Oltjen, and Cliff Mayo.

I used to think I knew I knew,  
But now I must confess.  
The more I know I know I know  
I know I know the less.

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and mats to fit the  
individual picture.

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**THE AMERICAN HEREFORD JOURNAL**  
 —the meeting place of buyers and sellers of Hereford cattle for more than  
 forty-two years

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 KANSAS CITY 6, MO.**

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 WOOL  
 FURS  
 SHEEP PELTS**

**Kansas Hide &  
 Wool Co.**

2nd and Osage  
 MANHATTAN, KANSAS

*New Spring  
 Styles*

in

**MEN'S WEAR**

at

**Popular Prices**

at

**Woody's**  
 MENS SHOP

**IN AGGIEVILLE**

### Past to Present

(Continued from page 27)

Lawn Polled Hereford farm near Larned, Kansas.

By 1941 several more steps were taken which made history. First, an outside judge was brought in to make the placings in the Dairy show for the first time. George Cooper, manager of a dairy farm in eastern Kansas, was the judge selected. Second, a practice was started of having the first- and second-place winners in the individual classes show for breed championships. After the breed champion was selected, the second-place winner was given a reserve ribbon. Then in the final contest for the grand championship award all champions and reserve champions of each breed were brought into the ring. That was the year Ralph Bonewitz, now extension dairyman at Kansas State college, was reserve champion of the Dairy show.

Down through the years 1800 students, including some 25 girls, have shown stock. All have felt that the real award of the show comes not from the trophies won, but from the

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practical experience gained. This attitude has existed from the first show.

By giving students a chance to get valuable practical experience in fitting and showing cattle, the Royal has taken an important role in supplementing classroom instruction. Such a combination makes for a better balanced college education. With practical experience as a goal, it's easy to see why the show has been so successful in the past and should continue to make rich Royal history in the years to come.

ROTC student: "I haven't paper or pencil for the test."

Officer: "What would you think of a soldier who went into battle without his gun or ammunition?"

ROTC student: "I'd think he was an officer."

He was a seven-foot-tall basketball player. He applied for a job of lifesaver. "Are you a good swimmer?" they asked. "No, but I'm the best wader in 13 states."

"I don't want any of your lip," said the dentist as he prepared to pull the tooth.

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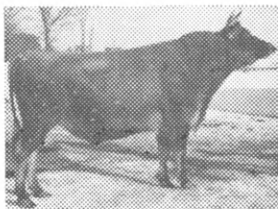
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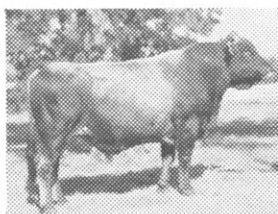


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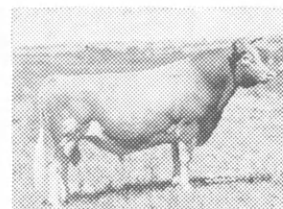
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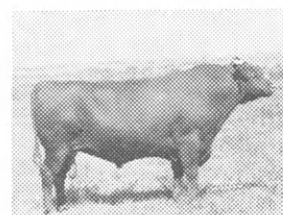
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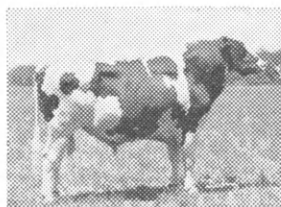
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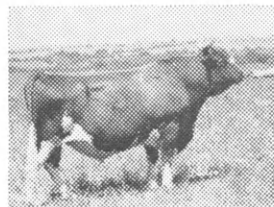
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**Internal Insects**

(Continued from page 9)

placed inside a fourth box 24 inches square made of concrete and weighing some 450 pounds. The sample of grain was placed in the smallest box, the center.

To pick up sounds of insects eating in the grain sample, a microphone originally used on a common hearing aid was used. The microphone was connected to a powerful amplifier. When weevils are eating in the grain sample, the amplifier can magnify the sounds loud enough to drive a person out of the room, according to Adams.

Research men at the College, working on the device, believe that a person accustomed to listening to insects will be able to tell just how many insects are in a sample of grain. However, they also are working on various devices to measure the sounds coming from the grain sample in an effort to determine the number of insects present.

After the new hearing device has been tested and improved further it may be put into commercial production. Farmers, elevator operators, and millers may then be able to check

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their grain for internal insects. Farmers, especially, will be able to make good use of this new instrument to keep a close check on their grain bins to see if fumigation has been effective.

When farmers put the new device to work, the harsh, crunching sounds of insects will mean more money for the farmer, for he will be able to take steps to kill the insects before they eat his entire bin of grain. The result will be greater profits for the farmer, handler, and miller, and, above all, a cleaner product for the consumer.

Built up poultry litter for best results should be six inches deep on the laying house floor by the middle of October. Clean litter may be added once a month, until the depth measures eight or ten inches. If the litter is kept dry and there are not disease outbreaks in the flock, removal of the litter once a year is sufficient. Shredded cobs, chopped straw, sand and shavings make good litter.

During their observance of animal week, the fourth graders told about their kindness to pets. Asked what he had done, one little boy said, "I kicked a boy for kicking his dog."

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one on hand for any  
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## Reader Writes

Martelle-A-Gram  
Pierce, Nebraska

Dear Sir:

I am a collector of barbed wire and have over 200 different pieces to date. You may have noticed a picture of my collection in the November issue of Country Gentleman on page 14.

The reason for writing you is that it has just been brought to my attention that your issue of May, 1949, carried a story, written by Charles Glenn, that told the barbed wire story briefly but very well. Is it possible to obtain a copy of that issue? I would surely appreciate it.

If it is not possible to obtain a copy, could you refer this letter to Mr. Glenn? It is remotely possible that he would be interested.

A picture accompanied the article and below it was the name "Dr. Hurley Fellows, KSC." If he is still there, will you please refer my name to him also? I often trade specimens of old wire with others.

Thank you,  
L. D. Martelle

## Ag School Angles

(Continued from page 6)

irritated or excited during the normal passage of the egg along the oviduct, Payne said.

The partially formed egg retreated back up the oviduct until it contacted another egg yolk. Both eggs then were forced back along the normal duct until a shell was formed around both of them. The combination when covered with shell and laid by the hen resulted in one extremely large egg.

### First Negro Graduate

The first Negro to graduate in Agricultural Education since its start in 1945 is Gene Holiwell.

Prior to this time Negro boys have met teaching requirements in agricultural administration and have found employment in the South. Chances are Holiwell will teach in a southern school.

There is a special organization called New Farmers of America for Negroes, but Kansas has no such organization or Negro vocational agri-

culture departments in its public high schools.

"He should make a good leader for the New Farmers of America," Prof. A. P. Davidson, head of Ag Ed, said. "I first heard the boy recite the FFA creed at the Clay Center FFA leadership school."

### Flashlight Is Pollen Collector

A three-cell flashlight has been converted to a device used to collect tomato pollen by Dr. Elmo Davis, associate professor of Horticulture.

The cells supply current for a doorbell which has been arranged with a minute glass cup replacing the bell. The cup is placed over a tomato flower and the flashlight turned on. As a result, the cup vibrates and pollen is liberated.

Davis uses the pollen in tomato genetics work.

"What did you say this morning, Professor?"

"Nothing."

"Of course. But how did you express it this time?"