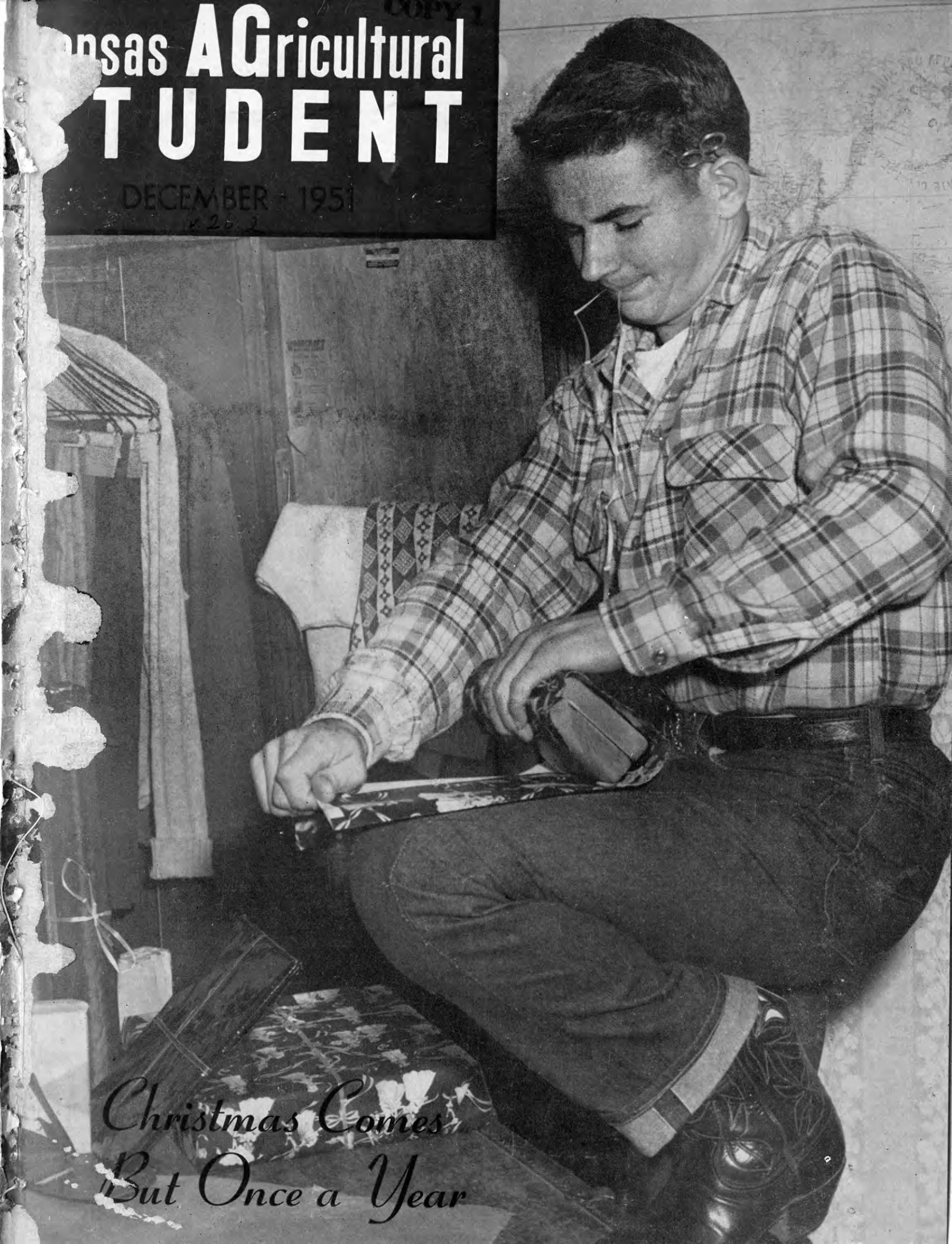
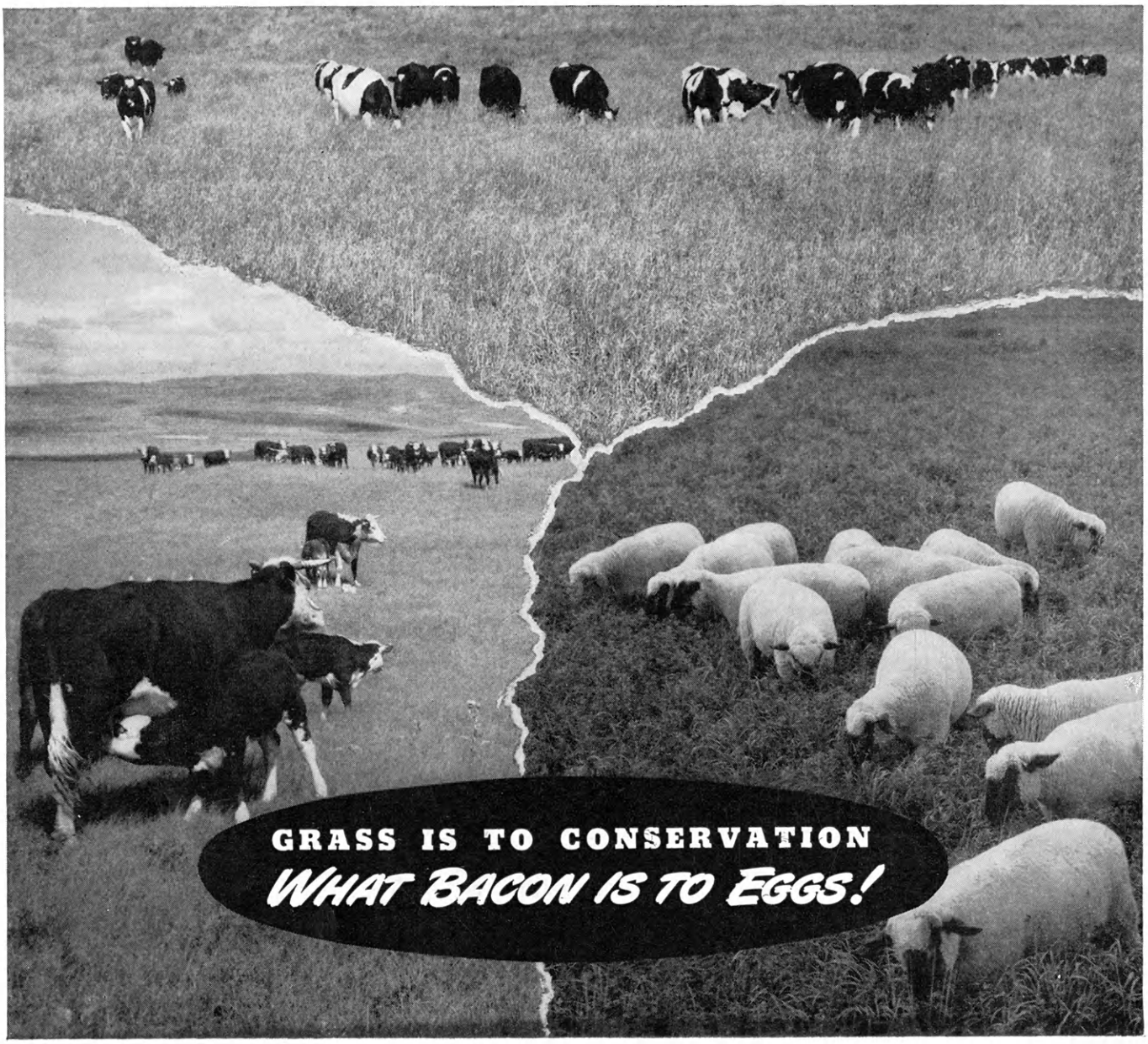
nsas AGricultural STUDENT

DECEMBER - 1951



Christmas Comes But Once a Year



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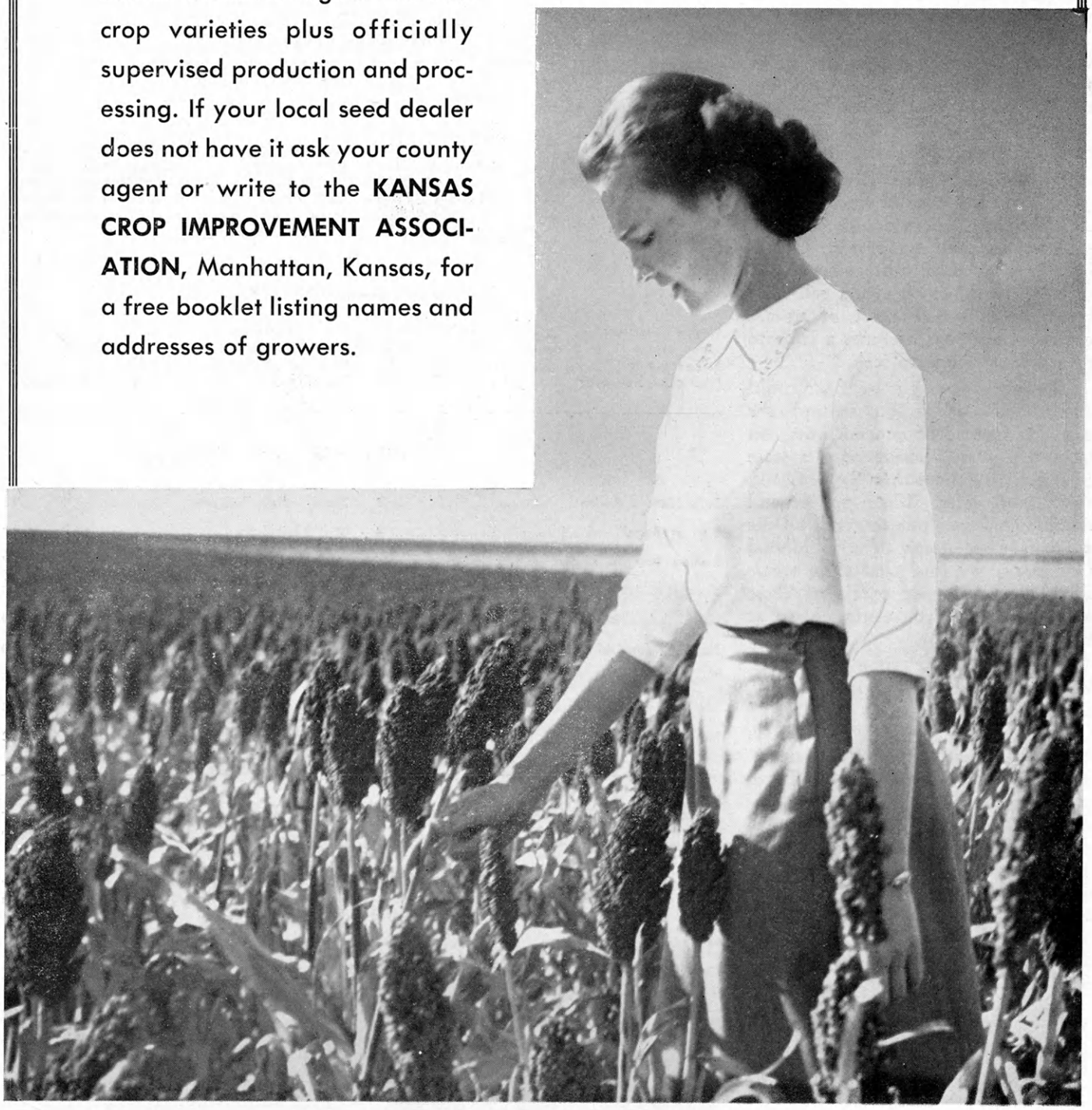

On the Cover...

CHRISTMAS COMES but once a year and our cover boy, Glen David, looks as if he's glad of it. But he has no monopoly on the holiday grimaces when it comes to doing up packages that will decorate rather than desecrate some classy little lassie's tree.

Glen is a junior in agriculture who works about as hard all the time as he was doing when the photographer snapped this picture. Last Fall, he was head of the Queen's committee for the annual Ag Barnwarmer. He was as close-mouthed then, about the winner, as he is right now—gripping that ribbon between clenched lips. And he still won't tell us who the little gal in the billfold might be.

The Christmas spirit envelops most of us about this time, if from nothing else, caroling, Christmas decorations, gift buying and wrapping. Others become more important and we seem to lose—to shake off—that self-centeredness of which most of us are guilty. Christmas becomes a time to give joyfully, not to seek.

The better it might be if we could extend that spirit on around the calendar instead of concentrating on it once a year. Christmas is a state of mind. It's more than Santa Claus, tinsel, and gifts. When we depend on those things alone to recall all the pleasant associations of a childhood Christmas, we find that time wears away the conjuring magic of these things. We will be unresponsive at the holy season.

Christmas is a time to forget worldly troubles, grades, money, food. It's the time to say Merry Christmas! and to mean it honestly, kindly, expansively. What we're celebrating is the coming of our Lord, the visit of God Almighty to this troubled world. It has been the tendency to overlook this in the frenzy of our Yuletide frivolities and commercialized "Xmas" activity. Gift-giving has sometimes been lowered to a matter of keeping-up-with-the-Jones'. At first, it was the path set forth by the heavenly host when they sang "Glory to God in the highest, And on earth peace, Good Will toward men."

Christmas is upon us. Shall we make it full of good will!

THE KANSAS

Agricultural Student

KANSAS STATE COLLEGE
OF AGRICULTURE AND APPLIED SCIENCE
MANHATTAN, KANSAS

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Contents

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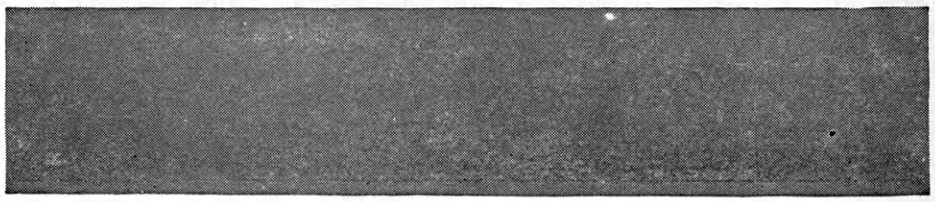


Yippee Aye, Yippee Oh

Let's Have a Rodeo!

By Dick Fleming

THAT'S THE NEW pep chant of the Ag Council since they've started exploring the possibilities of an educational display Ag Day coupled with a crowd-drawing rodeo.

Ever since the Ag Fair of the 20s and 30s was abandoned, many people in the Ag School have felt that there should be some time during the year when outsiders could visit each department.

Recently, the Student Planning Conference proposed the idea of an All-College open house. If the idea takes form, all schools will have to furnish exhibits on a specified day.

In order to get the Ag School organized so that it would be ready to help in an All-College open house, the Ag Council has proposed Ag Day. It appointed John Schovee, Douglass Fell, and the author to investigate the possibilities of holding an Ag Day next spring.

At present the Ag Day would include departmental exhibits and an entertainment feature. Top suggestion so far is a rodeo.

Council members thought the whole plan a good idea. Dean R. I. Throckmorton said so too.

The committee then tried to find out if the Field House could be obtained. The Field House use committee, headed by Max Milbourn of the president's office, had ruled that rodeos could not be held there when the Chaparajos riding club broached the idea last year. This decision was based on the fact that rodeos have not been approved as an All-College activity. In other words, rodeos have never been held here before; why start now, committee action implied.

But a Kansas rodeo professional has offered to supply broncos, chutes, and other animals and equipment now for a percentage of the gate receipts.

Competition in such a rodeo would be limited to college students, the Ag Council decided. Most of the riders would be members of the Chaparajos club, probably, due to their greater interest in riding. But any student would be eligible.

There also is some possibility that a rodeo contest with another college might be scheduled. Forty-one colleges make up the National Intercollegiate Rodeo Association, of which K-State is a member.

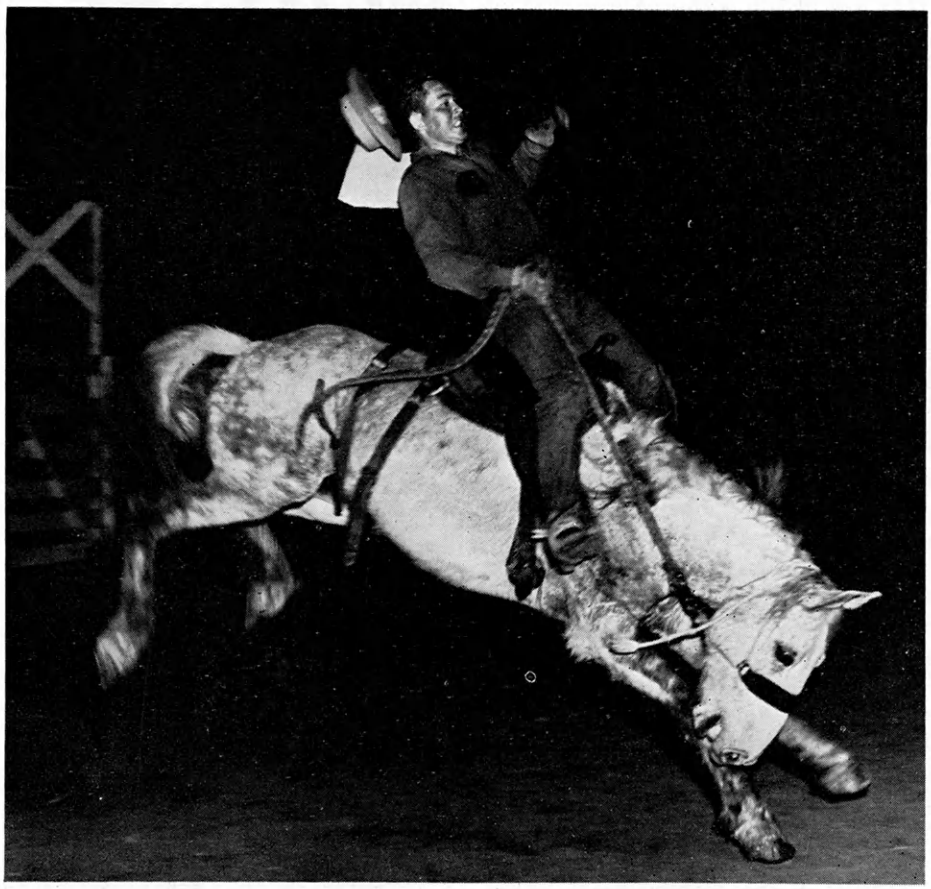
Twenty-four of them held rodeos on their own campuses last year, including such schools as Oklahoma A & M, Oregon State, Colorado A & M, Montana State, and the University of California.

The Chaparajos have competed in rodeos at other colleges for a long time now and have wanted to issue return invitations, but they couldn't.

Date of the affair is one big center of discussion thus far. The Dairy and Block and Bridle clubs, which are

(Continued on page 27)

Bronco Buster . . .



PICTURES LIKE THIS are what we want to take in our own Field House and maybe we'll get to if the Ag Council is successful in their attempt to promote a rodeo along with Ag Day. Exhibits, such as those connected with the old Ag Fair of the 20s and 30s, would be prepared by each department. The rodeo would draw the crowd to college.

KANSAS STATE'S LIVESTOCK TEAM placed sixth at the Kansas City American Royal this fall. Team member Larry Seaman was top individual in the contest with 958 points out of 1,000. Left to right: Coach Don Good, Ed Horstick, Harlan Priddle, Seaman, Bob Edwards, and Gene Brinkman. The team is chosen by Coach Good on the basis of scores earned on practice judging, aptitude, and individual improvement made. After major judging contests, each man starts with a clean slate judging various classes of livestock.

K-State Stock, Stockmen

Win at American

By Dick Fleming and Si Brandner

A K-STATER came out top man in the American Royal Intercollegiate Livestock judging contest this year and K-State livestock copped high honors as well.

Larry Seaman, a senior in animal husbandry, was top man in the competition, with 958 points out of a possible 1,000. The team placed sixth.

Seaman hails from Wilmore. He attended high school there and was a member of the 4-H club for eight years.

While in high school he carried on swine, beef, and poultry projects. In 1948 he was named state swine champion. He had the champion steer at the Fat Stock Show in Wichita in 1947 and reserve in 1948.

He was champion swine producer in 1947 in the Kansas State swine production contest.

This year's win at the Royal is not the first time he has placed in judging contests. Last year Larry was high point man in beef and Hereford cattle at Fort Worth, while on the junior livestock judging team.

He was a member of the K-State judging team which placed second at Oklahoma City last year.

After graduation Seaman "would like to do something in connection with livestock production," he said. "I'm not interested in wheat farming or cash grains," he added.

GRAND CHAMPION PEN of hogs at the Royal was this trio of middleweight Poland Chinas. They captured the breed championship and went on to top the show.

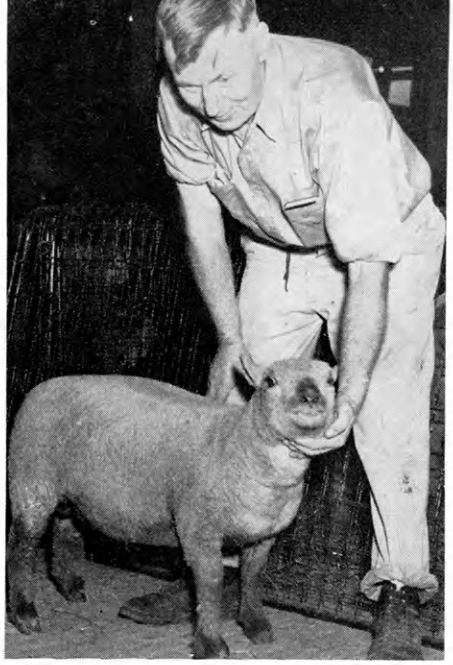
Students are chosen for the judging teams on the basis of scores they receive on practice judging, aptitude, and individual improvement made, said Coach Don Good.

As soon as teams finish one judging contest, the students start with a clean slate, judging various classes of College livestock. They are chosen from the results made on this practice judging.

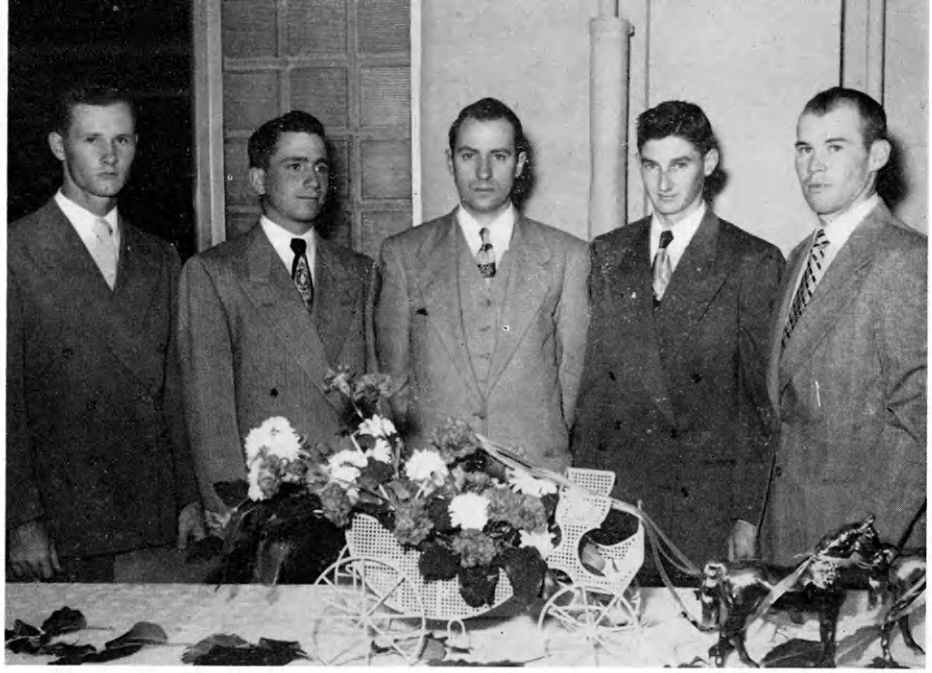
The grand champion pen of hogs at the Royal was from K-State. The winners were a pen of middleweight Polands.

Four other breed championships were captured by K-State swine. Lightweight Durocs and Spotted Poland Chinas both took pen championships. The middleweight pen of Poland Chinas were breed champions

(Continued on page 22)



TOMMY DEAN, College shepherd, shows the Southdown wether lamb which was grand champion at the Royal. The lamb was from a pen that took top honors.



MEAT TEAM MEMBERS at the Royal pose at the Golden Ox restaurant in the Kansas City Stock Yards Exchange building. The team placed sixth. Members, left to right, are Richard Ward, Phil Lukert, Coach Ralph Soule, Wayne Stitt, and Dale Davies. This is the first team Soule has coached for K-State. He replaced Ed Margerum on the staff.

Royal

WOOL GRADING AND CLASsification, a one-hour course in commercial judging of wool, is offered now for the first time at Kansas State. It is taught by Prof. T. Donald Bell.

This course includes a mention of genetics—the probable chances of a ewe's offspring to carry the same kind and grade of fleece and its economic value—wool brings about a dollar a pound today and a good shearing ewe may produce ten, twelve, or even more pounds of wool a season—grading fleeces for market, and judging fleeces for quality. The class chose the fleeces shown at the American Royal by the College.

The KSC fleeces at the Royal took almost all the top honors in their division. The reserve championship fleece and first in Hampshire, Rambouillet, and 3/8 blood fleece were won. K-State fleece took second in Shropshires and third in 3/4 blood fleeces.

The class attended the American Royal, practicing on the fleeces shown there and taking sixth. They are shooting for top honors at the National Western Livestock Show at Denver. Dr. Bell reckoned that this show is held late enough that this semester's class will have a good chance to place. Denver is tops among wool judging contests.

The class will have a field trip to Kansas City to watch and observe the way the wool graders work in

(Continued on page 20)

THE K-STATE WOOL judging team placed sixth at the American Royal. Members are chosen from the new class on grading and classification of fleeces. Members of the team are, left to right, Stanley Slyter, Kenneth Urban, Kenneth Newell, and Byron Taylor. The team is coached by Prof. T. Donald Bell. They go to Denver next month.

Alex Meek

Scotchman Says

Packers Are

"THE WORK OF THE MEAT PACKER" *was the essay that won the* 1951 *Swift Essay contest at K-State. The contest, which was open to all Ag Students enrolled in state agricultural colleges, attracted students from nearly* 100 *colleges. Meek won a free trip to Chicago to attend a four-day market study of livestock and meats.*

—EDITOR

THERE IS A WORLD-WIDE tendency in industry to blame the vagaries of the market on the so-called "middleman" or the person or establishment which handles the particular product in its journey from producer to consumer. Although this accusation may be true in some industries, it does not seem to apply to the meat packing industry.

High prices for meat are often blamed on the meat packer by the consumer, while low prices for the producer of livestock also cause complaints. In both cases the meat packer is accused of making excessive earnings.

However, a study of the earnings of the packing houses shows that the margin of profit made by the packing house through the years is less than that of many other industries and does not have any great effect on the price of the product to the consumer. For example, one of the large packing houses made an average profit of one-quarter of a cent per pound of product handled; this is a very reasonable profit, considering the capital outlay and the labor involved in the buying, processing, and distributing of the various products handled by the packers. Just what the work of the packer involves will be the subject reviewed in this paper.

In regard to meat, the contribution of the packer begins with the brisk competition of buying the animals at the stockyards. An interesting point here is that the packers are not permitted by law to hold any share in the operation of the stockyards nor have any financial interest in the stockyards, so that fair treatment to all is guaranteed at the market. In recent years there has been an increasing trend to direct marketing; that is, shipping straight from the farm to the packing houses without the aid of commission salesmen and recognized public stockyard markets. This has been particularly true of hogs, due to the relatively concentrated area of production.

The packers must keep buyers at all the markets for all classes of livestock and, as the buying of livestock is a highly specialized profession, there must be one for each class of livestock. That is, there will be a buyer for beef, one for lamb and sheep, one for veal, and one for pork. These buyers must not only buy at about the proper figure, but must co-ordinate their buying with the demand of their local branch slaughterhouse. Thus a highly trained staff of men must be maintained at each of the large livestock markets within the province of the packer.

From the yards the livestock pass to the slaughterhouse where they must pass a federal inspection for health before and after killing. When the animals reach the killing floor they are stunned by a hammer and then hung and bled. Then they pass along a line of specialized butchers, each one of whom carries out one dissection operation, and, finally, the sides of beef or lamb or mutton or pork are placed in a cooler for 36 to 48 hours at a temperature of 32 to 34 degrees Fahrenheit.

From that point most of the beef goes to the distributors, but pork is often cured and stored for several months before distribution.

As only 45 to 50 per cent of a sheep, 50 to 55 per cent of a steer, and 65 to 70 per cent of a hog may be sold as meat, there are many by-products produced. The hide is probably the most important of these and one of the largest industries built up by the by-products of the packing houses is the leather industry. Other by-products are lard, oleo oil, stearine, and many drugs. Also by-products are glue, gelatin, feeding tankage, fertilizer, glycerin, wool, hair, and soap.

It is obvious, therefore, that the packing companies must maintain a large labor force and provide a large storage space at central markets. This brings up the problem of efficient utilization of labor as the market varies not only seasonally, but also daily, so that a great reduction in labor economy is possible from day to day in the meat market.

With the available facilities for distribution owned by the packing houses, it was only natural that they would eventually spread their interest to cream, poultry, and eggs; in this work they did a very real service to the producers as they set up assembly houses at various points in the districts with a surplus of these products and, after the grading and sorting of eggs, dressing of poultry, and manufacture of cream into butter and cheese, they shipped the finished products to the centers of high population. This service requires the upkeep of creameries and egg and poultry stations at many points, mostly in the Mid West region, which is a region of surpluses.

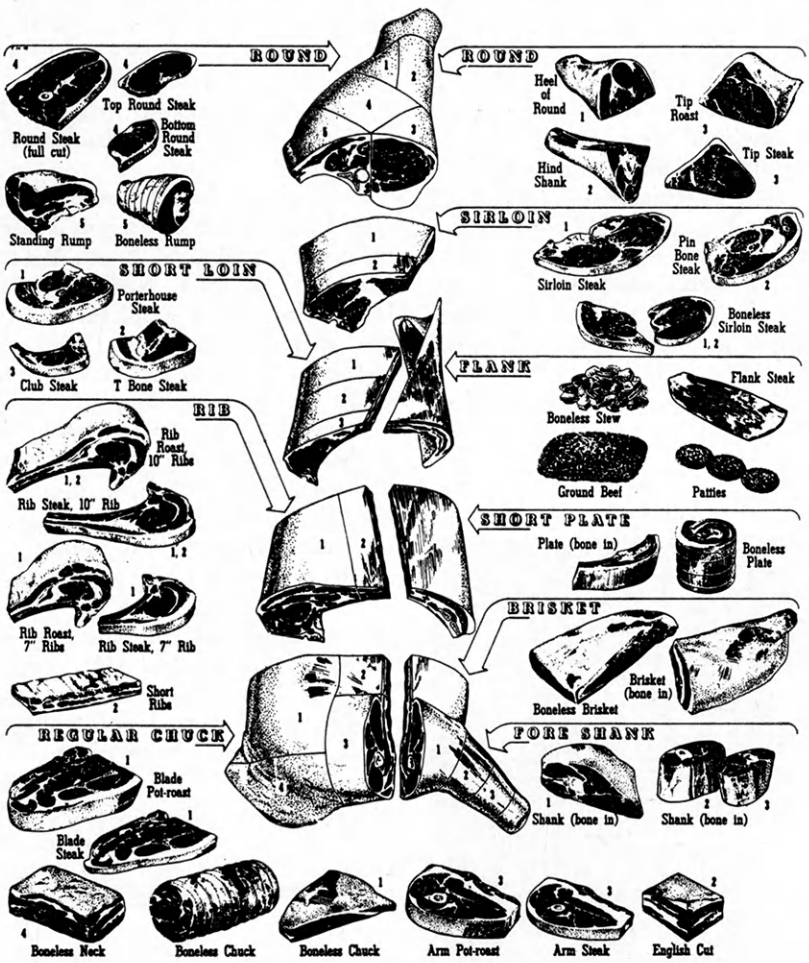
The next function of the meat packer is the distribution of his products and this service entails a large expense for the use of refrigerator cars in transit and the furnishing of storage space before final distribution

Not to Blame

By Alexander Meek

Another Service . . .

STANDARD BEEF CUTS



PRIMAL (WHOLESALE) BEEF CUTS AND THE RETAIL CUTS MADE FROM EACH

(Engraving courtesy Agricultural Experiment Station)

PACKERS RENDER another service with charts such as these prepared for distribution to Home Ec departments. The chart is designed for meat education.

of the product to the retail market.

The nation-wide distribution of all these perishable products was impossible before the development of refrigerator cars and refrigerated storage space; with the development of refrigeration, dressed meat, butter, cheese, poultry, and eggs were shipped to the eastern and far western markets. This extension of markets considerably broadened the scope of the meat packing industry, for the meat packers found that an efficient distribution system was required after the arrival of the products at the market zone.

For this reason branch houses with staffs were established. These were situated on railroad sidings and received the carloads of the various products at varying rates, depending on the size of the market served. The function of the branch house is to store the products and to sell to local distributors, wholesalers, and institutions so that it is a vital link in the chain from producer to consumer.

It is obvious from the foregoing that a packing company operating on a nation-wide basis must employ a very large central organization to maintain the greatest possible efficiency in all the phases of buying, slaughtering, storing, and distributing their products. This central organization is divided into departments and each product has its own sales department.

Each department keeps in close communication with the branch houses and the main sales office keeps in close touch with the buyers in order that the latter may bid for livestock at a price approaching the retail demand. Also company salesmen work out of the branch houses, selling all of the products, while other salesmen, working directly from headquarters, sell specialized

(Continued on page 24)

Poultry Team Is

Tops at Chicago

By Stan Creek

THE KANSAS STATE college poultry judging team brought an estimated $450 worth of prizes, trophies, and cash awards home from the Chicago National Intercollegiate judging contest at Thanksgiving time. The team won first out of 21 competitors.

Don Grisham, a poultry husbandry senior from Pueblo, Colo., was high individual. Don Bigge, an ag administration sophomore from Stockton, took second. Each received expensive wrist watches for their ratings.

Three trophies came home with the team: the big cup that rotates until some one school wins it three times, another smaller trophy for top team win, and a third for winning first in the exhibition poultry division.

The hardware value was the part that was estimated. The team members, Truman Diener, Lyle La Gasse, Bigge, and Grisham, also received small cash awards.

Last year, the poultry department took the old rotating cup out of a 16-year circulation by topping the list. The big cup had started making the rounds in 1934 after K-State's poultry men copped off the first cup for keeps in 1933. Coach Tom Avery, incidentally, was a student member of the 1933 team. The contest, with the rotating cup, had started in 1929.

The national poultry contest, not connected with the International Livestock Exposition, was held in downtown Chicago's swanky Merchandising Mart. A secretary in the building remarked that the chickens they were used to at the Mart usually preened in nylons.

The poultry contest is divided into three parts: exhibition stock, market poultry and eggs, and hen production. On the latter, the boys have to estimate a bird's output within 20 eggs for the entire year to even rate. Officials have trap nest records on all the birds.

Live and dressed market poultry were judged and 50 eggs ranked according to federal marketing specifications. In connection with this part of the contest, the teams toured the famed Fulton market in the Windy City, one of the largest poultry exchanges in the world.

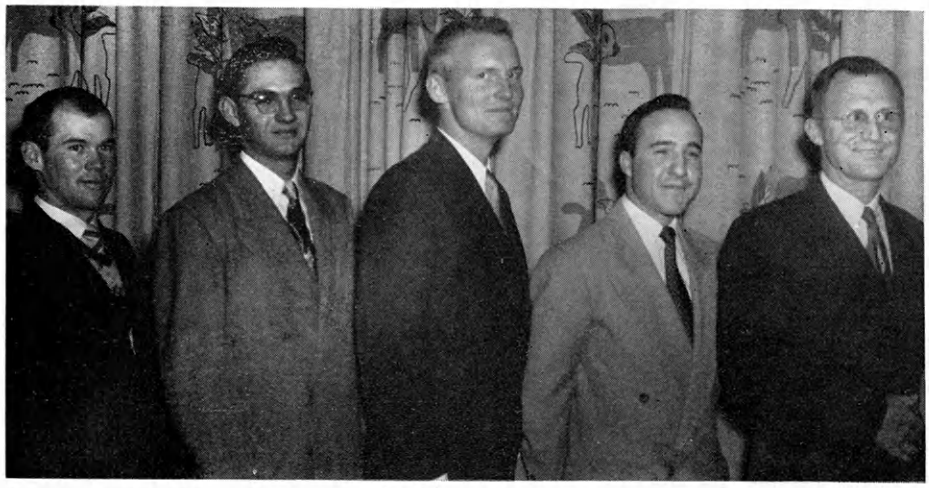
Birds are ranked for both showing and breeding purposes in the exhibition contest.

The team was third high on market poultry and fifth on the production contest. But individuals ranked high in all which brought the overall total score up to 3,837 points out of a possible 4,500. Texas followed with 3,759, a comfortable margin. Kentucky, Arkansas, and Missouri ranked next in that order.

Following the contest, Grisham and Bigge both appeared Thursday morning on Don McNeil's Breakfast Club, the national ABC radio show. It was the second set of K-Staters for the week on that show. Dick Fleming and Ellis Stout, of the Ag Student staff, appeared Monday morning.

Coach Avery said that every team sophomore Bigge has been on so far has won. In high school, Bigge was a member of the FFA team that took state and national championships, and on others that took regional tops.

Grainmen . . .

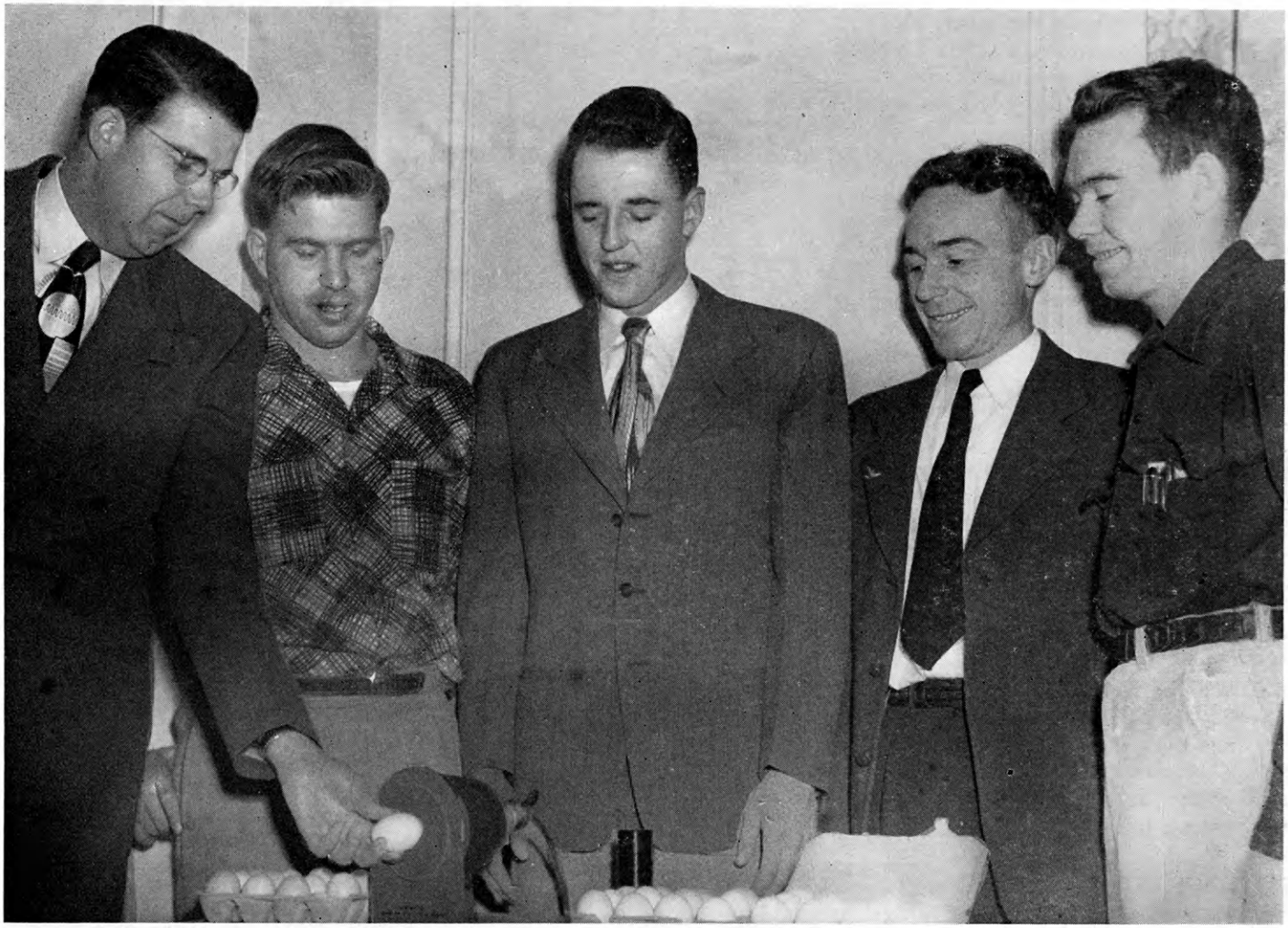


CROPS JUDGING TEAM members at Chicago International this year were, left to right, Dale Davies, Dick Golladay, Armin Grosse, and Bob Schulte. Ernest Mader coached. The team ranked fifth, same as last year and the same as at the Kansas City contest. Davies doubled as a member of the meats team which drew 11th at the International.

The crops judging team, led by Coach Ernest Mader, did exactly the same as last year. In their annual double workout during Thanksgiving week, they took fifth place at both the National Collegiate crops judging contest in Kansas City on Tuesday and at the International Intercollegiate contest in Chicago on Saturday. That was the same ranking as in 1950.

Virtually the same teams competed at both places. But winners switched. At Kansas City, Texas Tech was high, followed by Oklahoma A & M. At Chicago, Oklahoma was high with Texas trailing in second place. Ten

Birdmen...



WINNING POULTRY TEAM members are shown practicing a last time on ranking eggs in their hotel room at Chicago before the contest, November 27. Repeated candling helps sharpen up a team, Coach Tom Avery, left, said. Two of the team, Don Grisham and Don Bigge, were first and second respectively in the national contest. K-State's top team took the big rotating cup out of circulation last year. Team members are, left to right, Don Grisham, Don Bigge, Truman Diener, and Lyle La Gasse. Prizes totaled $450.

teams competed at Kansas City, nine at Chicago.

Members of the crops team were Dick Golladay, ninth high individual, Armin Grosse, Bob Schulte, and Dale Davies.

Dale Davies had another double workout for he served on the meats judging team too. That team took 11th out of 20 competitors.

It was Coach Ralph Soule's first K-State coaching job. He replaced Ed Margerum on the staff this semester.

Raymond Sis was the high individual on judging lamb carcasses. He received a plaque award. Davies was fifth on beef.

Other members of the team were Richard Ward and Phil Lukert.

Iowa State took first in the meats contest, coached by a former K-Stater, Ed Kline, '42.

The bottom dropped out from the livestock judging team, defending champs from 1950. It drew 26th out of 34 in the contest, which was won by Mississippi State. It was the first team that school had ever sent to the International contest.

Coach Don Good said the hog division was the part that cost the K-State team the most. Members of the livestock team were Bob Edwards, Harlan Priddle, Gene Brinkman, Larry Seaman, Ed Horstick, and Bill Kvasnicka.

Stockmen . . .

LIVESTOCK JUDGING TEAM members in Chicago are: Ed Horstick, Don Good, Larry Seaman, Harlan Priddle, Bill Kvasnicka, Eugene Brinkman, and Robert Edwards.

"I'm forgetting women."

"So am I. I'm for getting a couple as soon as possible."

Marriage is like a baseball game—while one man is out, another is getting to first base.

1951 Ag Barnwarmer Haunted by Herman, Vets, and Irwin

By Dick Fleming

THREATENED BY A NAME band on one side, by feuding Vet Medicine men on the other, plus revolt from within, the 1951 Ag Barnwarmer swivel-hipped itself through a broken field of obstacles to success.

Moral success anyway, even if not complete financial success. Though guaranteed financially by the social committee, which brought in Woody Herman at the last minute for a dance on the same weekend, the Barnwarmer committee decided to pay a $100 deficit out of money left over from the last year's dance rather than collect from the social committee.

Diane Blackburn was crowned Queen by Dean R. I. Throckmorton after, earlier in the week, she was dunked in the big horse tank. She came to school without the required jeans and red neckerchief. Queen Diane is a sophomore in floriculture, a member of the Ag Student staff, and Alpha Xi Delta sorority.

Rebellion within the ranks developed when Irwin Frank criticized the Barnwarmer in a Collegian editorial. The next day Irv was dunked twice when loyal Aggies found him without Ag uniform.

So Frank obtained his own tank and proceeded to dunk Aggies at the south end of the campus, according to reports. He denies this. Aggies converged to bring the tank north. Their own had been stolen. Horse doctors have been suspected.

The stolen tank was found draped around the statue of William Alexander Harris south of Anderson hall. Glen David, a member of the Barnwarmer committee, spotted it on his early morning milk route. All that remained of the tank was the outside rim. The bottom had been chopped out completely.

Students from Vet Medicine, out on a smoke break, descended en masse in an attempt to overturn the big horse tank early in the week. Whooping Ag men emptied East Ag in a jiffy; loyal Aggies simply poured out of the building, observers report.

Someone who looked like a Vet Med major, dumped purple dye in the horse tank. One Vet student bluffed his way up to the tank with two Irish Wolfhounds. Finally Ag men approached. They chatted. The Vet Med turned, waved a white handkerchief to a group of Vets around their own building.

"Hey, fellows, we've made friends, now," he yelled.

At the Queen contest someone poured butyric acid on the greased pig which contestants tried to catch despite the stink. Jackie Scott, Kappa, won the contest.

Matt Betton and his orchestra played for the October 13 dance in a rustic setting of hay and corn fodder. Two 50 gallon barrels of cider were emptied.

The social committee announced October 2 that a contract with Woody Herman's name band had been signed calling for a dance in Nichols Gym the night before the Barnwarmer. The Social committee had already been rebuffed by Blue Key in an effort to take over the Homecoming.

But the Barnwarmer committee had reserved the gym for that night, October 12, to put up decorations.

Finally a compromise released the gym for the Herman dance and provided a minimum income be guaranteed for the Barnwarmer. Previous years' attendance records compared with enrolled Aggies provided the basis for the income guarantee. Other minor provisions were made also, such as protection by tarpaulins for the Barnwarmer Queen's throne on Friday.

Even though the dance income was $100 below the sum the social committee agreed to pay, the Barnwarmer committee decided the deficit should come from last year's Barnwarmer funds. "Gives us more independence," one committee member remarked.

Historically, the December, 1927, issue of Ag Student describes the first Ag Barnwarmer in October of that year as "an evening crowded full of wholesome fun." Held in Nichols gym, it had been decorated by the Aggies to represent a hay loft.

To get into the hay loft each Aggie assisted his date up a rope ladder. Barrels of apples and cider were placed along the fence and among bales of hay.

The Aggies were dressed in blue bib overalls and their dates in aprons and cotton dresses.

For those who wanted to dance, "June Layton's Rhythm Rustlers and their equipment filled a hay rack at the side of the big gym to furnish all that could be desired in the way of dance music," the Ag Student relates.

Those who did not care to dance could go to the "Moon Room" where they could play games and indulge in other "amusements." The 1932 Ag Student states that the room was filled all evening that year, but the staff later found it impossible to find anybody who would admit being there.

The first Queen was chosen by those who bought tickets, as is still done. Miss Grace Madison of Everest, Kan., a sophomore in general science, was presented as First Queen, by Francis W. ImMasche, manager of the hayseed dance.

The Queen emerged from shocks

'Warmer Beauties . . .

THRONED IN A BUGGY, Queen Diane Blackburn holds a bouquet of mums flanked by attendants Jackie Scott, left, and Mary Quinlan. Queen Diane was crowned by Dean R. I. Throckmorton, who had quite a stretch putting the crown on her head while he stood on the ground. Diane is a member of Alpha Xi Delta sorority and a major in floriculture. She was dunked earlier in the week. Jackie, shown in the inset contesting, is a Kappa; Mary, a Tri-Delt. Helen Poston, Clovia, and Nancy King, A D Pi, complete the five.

of corn and was crowned by Dean L. E. Call. She accompanied him in the Grand March.

After the Barnwarmer the Aggies escorted their dates home and returned to clean up the gym. By morning no traces of the dance could be seen.

"The first annual Barnwarmer made all who participated eager to repeat the big, old-fashioned, fall festival next year," according to the Ag Student.

The Barnwarmer developed separately from the Ag Fair, which was held each spring during the 20s and 30s. Aggies felt they needed some sort of a social event in the fall, since they already had one in the spring. They decided on the Barnwarmer.

The bib overalls were recognized as the official uniform in 1932. The penalty for not wearing overalls was a dunking in the horse tank that year, a tradition that still holds.

Down through the years the Vets have added much excitement to each Ag Week. In the late 30s, the friction between the Ags and the Vets resulted in free haircuts, fights, dunkings, and rotten egging.

This was climaxed in 1941 when Vet students and Engineers, with the co-operation of the Manhattan police, kidnapped four boys and their princess dates.

The yearly brawling became such a problem that a peace pact was signed in 1945 between the Aggies and the Vets. But the Vets still crashed the Barnwarmer, held that year in the Cafeteria, via the dumb waiter.

Many sidelights on past Barnwarmers give a composite picture. One year, farm animals lined the entrance to the gym to create the atmosphere.

Another year contestants in the Queen's contest drove tractors over the campus advertising the Barnwarmer, uprooting trees, and nearly doing the same to two professors.

Although recent Barnwarmers have gone modern compared to the first hay loft affair in 1927, Ag men still retain the same old spirit of the first Ag Barnwarmer.

Staffers . . .

AG STUDENT MAGAZINE STAFF members, seated left to right, are: Charles Kinast, Dan Henley, Nicholas Kominus, Dick Fleming, Sue Friesen, Diane Blackburn, and Si Brandner. Standing: Elbert Mac/, Eldon Johnson, Everett Browning, John Krell, Bob Hoisington, Stan Creek, Bill Smalley, Don Friesen, Dale Evans, Ellis Stout, and Don Shoup. Delegates attended the Ag Mag convention in Chicago. The Ag Student won first place on technical material written in popular form and placed fourth in general excellence.

LP Gas Provides

New Use for Old Friend

By Dale Evans

LIQUEFIED PETROLEUM, better known as LP gas, is giving a "new look" to Kansas farm tractors. An LP tractor is readily recognized in any field either by its extra large fuel tank directly in front of the driver, or by its replaceable gas bottles on the front of the tractor.

Prof. George Larson of the agricultural engineering department has been doing extensive research on LP gas. Here're some of the questions he's been considering.

What are the advantages of an LP tractor anyway? Since LP gas has an octane of over 100, it has anti-knock qualities, and fits well in the trend toward higher compressioned engines. Dilution of crankcase oil is no problem, because LP gas enters the manifold as dry gas. Some farmers actually add lighter oil to the crankcase between oil changes.

Another advantage of LP gas is its even-burning quality. There is no explosion, and no shock on the pistons and crankshaft. Expansion does the work.

Combustion chambers and valves are generally free from carbon deposits due to the clean burning gas. Valve sticking is not encountered when this type of fuel is used. These advantages add up to lower repair bills, longer engine life, less engine wear and increased satisfaction to the farmer.

Not to be overlooked is the lower price of LP gas in this area. It can be purchased 6 to 8 cents cheaper per gallon than gasoline. The consumption rate is somewhat higher, but not enough to cancel the saving. The larger fuel tank is needed because of the faster burning of the gas, and because the tank may be filled only to 85 per cent of capacity to allow for expansion.

Disadvantages to using LP gas as fuel include refueling, considered by some farmers as a prime problem. LP gas is stored in a liquid state and used as vapor. This makes refueling in the field difficult. Heavy, high-pressure tanks have to be trucked or trailed into the field. Then the fuel has to be pumped through leak-proof hose into the tank through a special filler valve. This operation is needed only when the tractor is in the field. When the tractor is near the main storage tank, refueling is no more difficult than with other fuels.

If the tractor has been converted with a replaceable bottle type tank, the empty cylinder is replaced by a heavy full one. Then it is important that the operator know how to fill an LP tank properly and safely.

All LP gas containers, tubing and fittings must operate at high pres-

(Continued on page 24)

Seminar Speaker . . .

Turkey Tales

By Eldon Johnson

TURKISH FARMERS are hard headed too, Dr. Wilfred Pine, land economist at K-State, learned while in Turkey on a special mission for the Economic Co-operation Administration.

Dr. Pine went to Turkey in February 1950, returning to K-State last summer. His job was to handle the agricultural economic problems for ECA which is administering the Marshall Plan.

The program in Turkey includes importing farm equipment and giving technical assistance in carrying out the program.

In Turkey, much attention has been focused on improving animal drawn equipment and importing farm machinery from America. Varied problems, such as establishing importers and dealers, selecting the proper size and kind of equipment, setting up adequate credit facilities, and maintaining a training program for machinery operators, must be solved before the program is completed, Pine said.

As for the hard headed farmers, Pine cited the case of the one who applied for too large a tractor. An agricultural engineer examined the application and tried to convince the man that a smaller tractor would fit his needs better.

The farmer could not be swayed by talking so a demonstration of the smaller tractor was held on his farm. Only after seeing the tractor demonstrated and driving it himself was he convinced. He purchased the smaller tractor.

Dr. Pine was shown that the educational program for the operation and maintenance of new machinery was getting results while visiting a farmer one day.

The farmer and Dr. Pine were driving on a road near the farmer's home when they came to a small creek. Normally the creek would be dry, but on this day the water was three or four feet deep over the road.

Dr. Pine advised the driver to turn back, but the farmer said he could cross the creek. He started across. The motor drowned out. The farmer got out and wiped the ignition dry with an oily rag. Starting the motor, he drove across even though water

(Continued on page 30)

Old vs. New . . .

CONTRASTING FARMING METHODS were filmed by Dr. Wilfred Pine, economist at Kansas State, while in Turkey on a special mission for the Economic Co-operation Administration. Turkey is focusing attention on improving animal drawn equipment and importing machinery from America. One big problem is to construct a plow that will scour in their soils. Pine found an expensive apartment waiting for him in Turkey instead of an adobe house. He said Turkish people are friendly and strong allies of western countries.

SCS Nursery

On Fast Rebound

By Diane Blackburn

RAMPAGING FLOOD WATERS of the Kaw River swept through the Soil Conservation Service Nursery last July, destroying nearly 6 million plants, another item in the most destructive flood of this area. One-half million conifers and deciduous trees survived in the nursery, located six miles southwest of Manhattan.

"Most of the winter will be spent reclaiming the damaged acres," said Fred Eshbaugh, manager of the nursery.

The government nursery includes 206 acres, of which 100 were damaged by the flood. The damaged land must be leveled from sand dunes, windbreaks re-established, and trees and shrubs planted.

The raging Kaw cut a new channel by the nursery, as a result of the spring and summer rains. Water and sand began overflowing from the river and piling up behind a lilac hedge windbreak which had been on the west side of the nursery since 1935.

The hedge acted as a dam holding back the river. Soon the water cut channels through the hedge, permitting the water and sand to spread across the nursery, the K-State Horticulture Farm, and completely demolishing the College vegetable gardens.

"We wouldn't even have tried to reclaim the nursery if the physical plant had not been intact," Mr. Eshbaugh said. The overhead irrigation system was only slightly damaged. Water did not exceed the 10-inch mark in the storage buildings and did not enter the office building which is located on a secondary bench of land.

Five holes from 10 to 14 feet deep and as large as an average-sized house were cut out on the west side of the nursery near the river. A hay rake, chicken coop, part of a house, and corn cribs which had been washed away from upstream farms were found in the holes. Sand is being used to fill the holes.

Sand piled against windbreaks and rows of shrubs, forming sand ridges which were 900 feet long and from three inches to three feet deep. A few inches of scouring took place in some areas while several feet of sand were deposited on other parts of the nursery.

Drainage ditches were destroyed. Natural drainage was not disturbed so the land will still drain after the ditches are constructed.

Reclaiming was begun by dividing the nursery into 100-foot squares. The depth of the original soil and depth of deposits were determined in each square before the leveling process could begin. Average depths of the deposits were used as a guide in deciding whether or not the sand should be hauled away or plowed under.

In the deep plowing process sand and silt will be plowed under and the soil brought to the top. The sand contains almost no nitrogen and very little organic matter, which makes it a poor substitute for the rich river land there before the flood.

The nursery obtained a plow which will make a furrow 30 inches deep. This plow belongs to a North Dakota farmer who had reclaimed some glacially deposited land. He was using the plow to turn under rocks and brush prior to tillage. A track-type tractor is being used to pull the plow at the nursery.

Deep plowing has helped the flooded land tremendously but the fields are still sandy in spots due to the varying depth of the sand deposits.

Mr. Eshbaugh is quite optimistic about the production possibilities of the nursery. He believes that cover crops, fertilizers, and plant residues will go far in bringing the nursery

(Continued on page 31)

Washed Out . . .

TWO COLLEGE STUDENTS survey the damage at the Soil Conservation Service Nursery southwest of Manhattan. The record-breaking July flood destroyed six million plants. The Kaw cut a new channel through the nursery and water and sand spread across the nursery to the K-State Hort farm, completely destroying the College vegetable garden.

Rhizominous Alfalfa . . .

More Bites to the Acre

By Don Gramly

ALFALFA THAT SPREADS like Johnson grass and is cut 20,000 to 30,000 times a year is being developed in an alfalfa improvement program by C. O. Grandfield, USDA agronomist here at the College.

All the cuttings come from just 120 plants. And there lies the secret. Those 120 plants are cut into as many pieces as there are nodes on the plants, then sprouted and used in propagating alfalfa. There are enough pieces cut from those 120 plants to make up the 20,000 to 30,000 cuttings.

The cuttings are used to speed propagation of certain clonal (vegetatively propagated) alfalfa selections in a synthetic breeding program. It's all directed toward developing improved varieties.

The main reason for cutting up the parent plant rather than using its seed is that while the parent plant is producing less than a gram of seed in one season, all the cuttings originating from that plant might be making a pound in the same amount of time.

Each fall, 100 to 120 individual plants are chosen from nurseries and brought into the greenhouse and potted. The new stem growth is cut into sections, each of which must contain a node, for the crown of the new plant originates there.

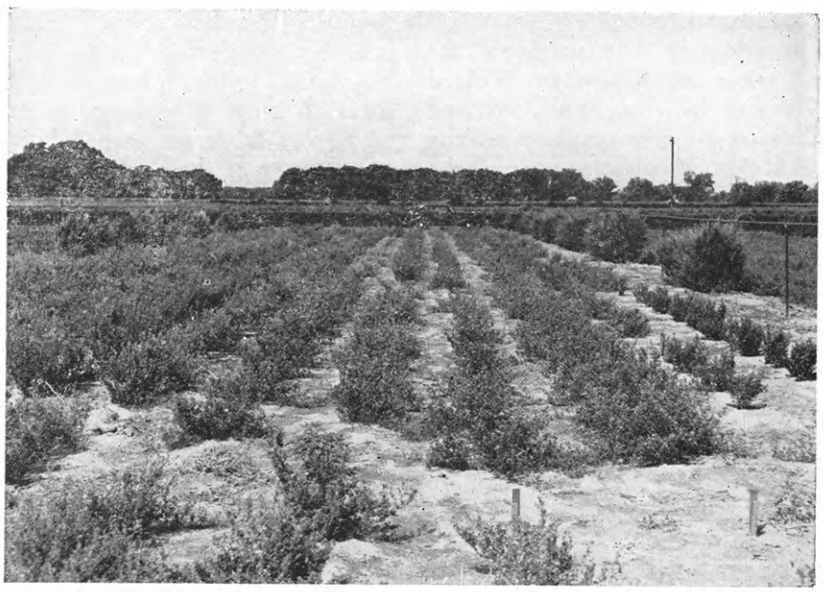
Cuttings are thrust into moist sand to the node. Within four or five days, roots begin to sprout from the cut surfaces. After rooting, the cuttings are transplanted to soil beds where they remain until a sizeable root system develops within six to eight weeks.

Rooted cuttings are placed in cold storage (34 to 38 degrees Fahrenheit) to save greenhouse space. In the spring they are planted in a polycross (manycross) nursery to test their combining ability for possible use in a synthetic alfalfa.

A synthetic alfalfa is one hybrid-

(Continued on page 26)

Plots . . .



NEW STRAINS of alfalfa are hybridized by planting rows within pollenizing distance of each other (top). New seed strains, like this Buffalo alfalfa, are increased in nursery plots (below). Result is more high quality hay for the modern, fast-packing baler. Rhizominous alfalfa was developed this way.

(Engravings courtesy Agricultural Experiment Station)

Millers Discuss

Breadmaking Enzymes

By Dan L. Henley

THE AMERICAN ASSOCIATION of Cereal Chemists held the 27th annual tri-sectional meeting at Kansas State in October. The meeting was formally opened at a banquet Friday evening, October 12, in Thompson hall.

Mr. George Garnatz, of the Kroger Food Foundation, discussed the challenge presented to cereal chemists by flour specifications for white pan bread and the need for uniformity in flour specifications.

Approximately 125 members attended the next session in Willard hall October 13. Dr. Paul Boyer, of the division of biochemistry at the University of Minnesota, opened the discussion on the uses of enzymes in bread making, with a talk on the nature of enzymes and enzyme action. Dr. Boyer stated that enzymes are organic catalysts and may be used to speed up reactions in dough.

Dr. Gerald Reed, special products department of the Rohm and Haas Company, Philadelphia, spoke on the manufacture of industrial enzymes for use in bread making. He said that good commercial baking enzymes, under correct conditions, should not lose more than 2 to 3 percent of their activity a month.

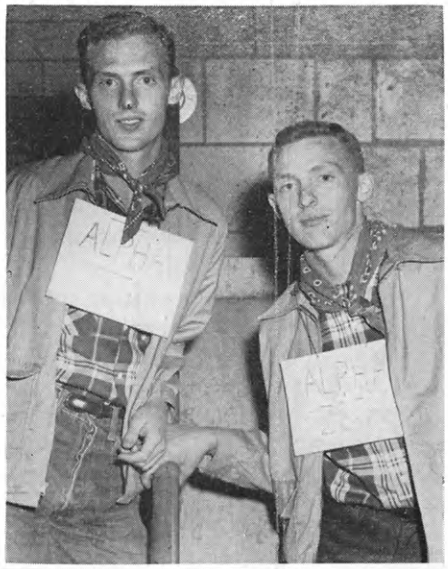
R. M. Sandstedt, department of agricultural chemistry, University of Nebraska, discussed the effect of alpha-amylase on baking properties. Dr. Sandstedt explained how alpha-amylase, when added to starch, swiftly reacts with the damaged starch granules and leaves the undamaged granules unaffected.

John A. Johnson, host of the meeting and associate professor of milling at Kansas State, explained how certain enzymes help produce better bread. He said that only recently was it realized that enzyme catalysts were responsible for the better bread produced by using starch and protein modifying enzymes.

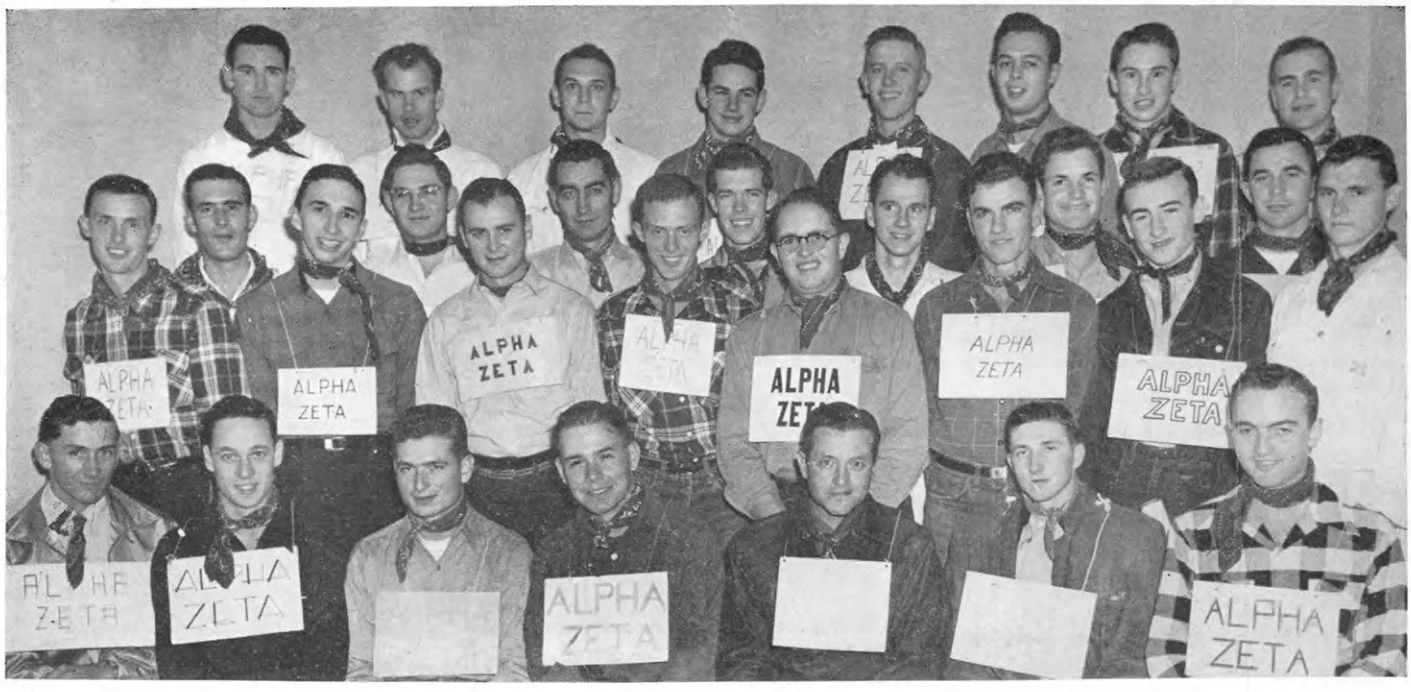
Oscar Skovholt, Quality Bakers of America, New York, concluded the morning program by reviewing the usefulness of fungal enzymes in bread production. Mr. Skovholt believes that the final answer to the use of fungal enzymes in dough will be found by "shop experience."

The final speaker of the meeting, Dr. A. K. Balls, department of enzyme chemistry, of Purdue university, outlined the degrading effects of enzymes in food preservation. Dr. Balls also reviewed the importance of temperature on enzyme reactions in bread production.

Autumn Harvest . . .



TOP-NOTCH STUDENTS are represented in this group of new Alpha Zeta initiates. Twenty-two Ag men and eight Vets have carried the cardboards through the informal. However, they are yet to be formally inducted. At right, Mervin and Martin Frey, twins from Manhattan, helped cause no little confusion. Identification of the two is difficult.



Roy Freeland . . .

Mr. Agriculture In 13 Years

By Don Biggs

FROM K-STATE GRADUATE to Mr. Agriculture of Kansas in 13 years is the story behind our November Ag Seminar speaker, Roy Freeland. He is serving his second year as Secretary of the Kansas State Board of Agriculture.

While at K-State, Freeland was an outstanding student and a member of the honorary agriculture fraternities: Alpha Zeta and Gamma Sigma Delta.

He was active in Block and Bridle and was elected to Phi Delta Kappa and Phi Kappa Phi. He was a member of the Farm House social fraternity. In his spare time, he did some judging on the junior and senior livestock judging teams.

Though he majored in animal husbandry and ag administration, Freeland showed his versatility by entering the journalism field when he went to work for the Corn Belt Farm Dailies after graduation. For two years he specialized in feature and editorial writing on their newspapers in Omaha and Chicago.

In 1939 he joined the extension service at Kansas State college. After one year, he became associate editor of the "Kansas Farmer" magazine. In 1943 he became field representative for the Kansas Livestock association.

Freeland was first associated with the State Board of Agriculture in 1945, when he was appointed assistant to J. C. Mohler, then secretary. Mohler retired in late 1949, after 57 years of service, and Freeland was selected to succeed him.

In his talk to K-State's Aggies, Freeland related some of the history behind the state board. The past activities of which he spoke pointed up the changes that have occurred in the state's agricultural industry within the past century.

Freeland said that the main function of the state board today is in doing police work by enforcing some 40 various state laws which protect the farmer both as a consumer and a producer. Work includes the checking of product guarantees put forth by feed, seed, and fertilizer manufacturers.

New jobs assumed by the board include the checking scales of grain elevators and others over the state. He pointed out that at the first check 50 percent of the scales were not giving correct weights.

Freeland also told of the close relationship between his office and the Experiment Station here. Much of the work now done by the state board was formerly done by the Experiment Station, he said.

Judging from his past record, Roy Freeland is not to remain at one level for very long, and it is very probable that we will be hearing much more of his activities in the years to come.

Davy Mackintosh

National Prexy Now

By Stan Creek

This was the first year in the past 20 or so that Prof. Davy Mackintosh, head of the meats department, did not go to Chicago for the International. So what happens? He's elected president of the national Block and Bridle club!

Here's the way it happened, according to delegates from the K-State chapter. They went to the annual conclave in the Stock Yards Inn primed to elect another member of the A. H. department, Prof. R. B. Cathcart, secretary. But someone else, from another state college, had already proposed that Davy be elected.

It sort of left them flabbergasted. When the K-State delegation was called upon to tell the group something about Davy, the boys claimed they didn't know too much about him but he was pretty good joe. The K-Staters had prepared no statistics on Davy like they had on Cathcart.

And the little Scotsman, well known from his 20 years of coaching meats teams and attending stock shows, was elected without a hitch.

A former K-Stater, Ed Kline, now from Iowa State, was elected editor. Other officers are Prof. J. W. Cole, Tennessee, secretary; and Prof. John Mowry, Texas Tech, vice-president.

Assoc. Dean A. D. Weber is a past president of the national organization, a powerful group representing livestock interests.

Prof. David Mackintosh

Bird Couldn't Make Up Its Mind

By Charles Kinast

AT LAST THE "THING" has been discovered. It's not the "thing" that Phil Harris sings about, but a chicken which couldn't make up its mind whether to be a he or she.

Dr. Paul E. Sanford, associate professor of the poultry husbandry department, discovered the bird when he selected 12 females at eight weeks of age to use in an experiment. Eleven of the birds came into production, but the 12th refused to lay an egg.

Upon close examination, it was discovered that the bird had both male and female characteristics. The head and comb were rooster-like, but the legs did not have spurs. The wings, hackle, and tail feathers were also characteristically male. The bird had a male voice, proven by its prolific crowing. The vent and the opening of the oviduct were distinctly that of a female.

After an examination and autopsy by the Veterinary Anatomy Diagnostic Laboratory, it was found that the bird possessed a normal oviduct. The ovary did not show the usual mass of follicles, but instead appeared as a tumorous mass of tissue. Slides prepared of this tissue and examined microscopically showed it to be composed of both male and female cells.

Three of a Kind

THREE OF K-STATE'S MEN were on the roster of outstanding authorities who judged at the International Livestock Exposition in Chicago this year. It's no new experience for any of them.

Assoc. Dean A. D. (Dad) Weber returned to the International again this year to judge the Hereford steers. He picked the grand championship of the show.

Dr. A. L. Clapp acted as a grain judge again—about the 17th time for him. Dr. Rufus Cox, head of the animal husbandry department, judged 4-H sheep.

Chit Chat

By Dean Clyde W. Mullen

Thanks to the Vets for helping make Ag Week a little more exciting than it otherwise would have been. A foray or two, from the citadel known as Vet hall, in effort to drain the traditional horse tank, was just the thing to put the Aggies on an alert. It helped spotlight the Barnwarmer. When nearly all Aggies wear approved regalia so that there are few involuntary dunkings, it requires a bit of outside nudging to make the horse tank routine as valuable as it is intended to be as a publicity stunt for the 'warmer.

* * *

There is competition among students driving automobiles for places to park at the north end. Lack of space is partly accounted for by loose parking habits, particularly among those early arrivals who have a tendency to pull into a parking spot at random, having little or no consideration for space between their own car and a car that may be already parked. To leave a five or six foot space between two cars that arrive and park early is poor parking efficiency. For the benefit of everyone concerned, we should all get the habit of parking tight. That goes for persons with "staff" stickers, too.

* * *

It is a real pleasure to watch the growth and development of leadership among our boys in the School of Agriculture. The Ag Association, Barnwarmer, Little American Royal, club activities, judging team competition and committee work all give aggressive youngsters an opportunity to show the mettle of which they are made. The junior and senior years begin to bring to light the fellows who will be marked by their instructors, departmental heads, and the dean's office for recommendations when personnel men come to the campus in the spring to contact promising graduates. More aggressiveness to you, lads.

* * *

A course in the speech department that has been almost completely overlooked by departmental heads and assigners is Radio Talk. For the second semester, the department is desirous of making up a class in Radio Talk for students in agriculture. The course attempts to improve speaking techniques, develop ability to write radio talks, and to provide experience before the microphone. This is exactly the course many of our Ags have been looking for.

* * *

Because of many years of experience in operating a typewriter, we have the habit of typing short letters in rough form in lieu of dictation. The other day we made reference to zambomba in one of these memos. Bess, our very efficient steno, asked modestly, "Did you by any chance hit the wrong keys when you were writing this memo?"

No. We hadn't. A zambomba is a useful little gadget, if you can get hold of one that is genuine.

* * *

It pays to pin down rumors. Word spread after the barricading escapade following the Nebraska game that the dean's office had pointed the finger of suspicion at a certain fraternity having among its membership a good many Ag students. The president of the fraternity came at night to our home to get the facts. It was easy to convince him that the rumor was false. But supposing he had not pinned the report down. It could have led to an estrangement between this office and that particular fraternity that we never could have understood. But D. E. nailed it, and he and the boys slept better that night. Repeat. It pays to pin down rumors.

* * *

This column takes this opportunity to include a statement from President McCain and addressed to Editor Stan Creek concerning the October issue of the Ag Student:

"Please accept my heartiest com-

(Continued on page 32)

Quinlan Keeps Tree Records

By Charles Campbell

RECORDS OF TREES planted on the campus as far back as 1882 have been kept by Prof. L. R. Quinlan of the horticulture department for over a decade.

Complete records have been kept since 1931. The records of plantings before that year are incomplete.

The oldest record of a planting dates back to 1882. The old pine tree located by the farm machinery building was set out then.

Each tree's record is kept in a duplicate file system in which it is filed alphabetically by name and numerically by location.

Location is established by dividing the campus into 12 sections with a scaled plan for each section.

The original purpose of this record was for data on the climatic and soil adaption of certain species and varieties. It was also to demonstrate the effect of drought, speed of growth of the different specimens, insect injury and susceptibility to attack by different insects, and the results and presence of tree diseases.

An example of its usefulness was in 1934 when data were taken on drought damage. The percentage of different species killed, injured, and held back in growth by the drought was a good indication of desirable species to plant in the future both on the campus and in this section of the state.

Location of every tree in every section is shown of the scaled section maps. If a tree has died or been removed from a section it is also shown on the map.

At present there are over 4,000 trees on the campus. This includes 185 species and varieties. Now the campus is an arboretum and is probably the largest collection of species between St. Louis and the Pacific coast.

Some species are labeled with metal tags. One or two students are assigned each year to label and maintain the records and maps.

Around 150 trees are planted or taken out of the campus each year. Approximately as many trees are replanted as are removed in order to perpetuate the different stands on the various sections of the campus.

Trees are removed when they become dangerous to pedestrians or cars, when seedlings are too thick, or when the trees die or are killed by insects or disease.

Visitors to the campus are always surprised to learn that at one time it was a cornfield with only a very few trees. The general notion is to assume that it was convenient to build the college in such a wooded area.

Aside from a few scattered specimens all the trees on the campus have been planted during the school's existence.

TREE INSPECTOR checks a bud from a Ginkgo tree, one of the rarest and oldest trees on the campus. These and all other trees on the campus are recorded according to their name and location. Professor L. R. Quinlan has charge of the records, which date back to 1882, when Bluemont Hill was a cornfield. Over 4,000 trees are in the arboretum.

At a distance of say two thousand miles, a girl doesn't seem difficult to please.

New Lab Aids Bug Hunters

By Bill Smalley

K-STATE ENTOMOLOGISTS and millers are working hand in hand on the problem of insects in stored grain, a major problem in handling grain.

Insects in stored grains are not new to the entomology department. Prof. G. A. Dean, former head of the department, began research on infested milled grain products in 1910.

Research projects to find methods of determining what per cent of the grain is insect infested have been accelerated. This is a direct result of new, stricter regulations on the amount of foreign material in milled projects set up by the Pure Food and Drug Administration.

The latest research project known as the Bankhead Jones Project 322, was begun three years ago. The College has allocated $600 for continuing the project. Recently, a special laboratory was set up in Fairchild hall for the project.

Two major ways of determining the quality of flour have been developed. The stain test shades insect remains to a green while the plant remains blue. The other is known as the X-ray test. It was developed by the physics and milling departments last year. The X-ray shows the insects inside the kernels.

Neither of these processes separates the infested grain from uninfested, but they could provide a means for grading wheat. A product which shows too great an infestation will not be used for human consumption. It could be used for animal feed, however.

Other phases of the stored grain insect work include that done by J. Rowell on a doctor's thesis. He studied the moisture content of corn and how it affects various fumigants. It was found that the higher the moisture content the less effective the fumigant.

An Indian student from Hyderabad, India, M. K. Ali, studied sorghums to determine whether or not rice or granary weevils preferred one variety of sorghum to another. He found certain varieties were not as susceptible to infestation.

Prof. Donald Wilbur searches with ultra-violet light.

A Chinese woman, K. O. Victoria Lieu, received a substance grant from the state department. She is working with Prof. D. A. Wilbur doing full-time research on sorghums. They have found certain varieties they are unable to infest with weevils at all while others are very susceptible.

The most important and most extensive project now under way in the stored grain laboratory is testing the effectiveness of Pyrenone Wheat Protectant in controlling insect damage to stored wheat. The U. S. Industrial Chemical Co., Inc., provided $5,500 for the project. These insecticides are very toxic to insects, but harmless to man.

This brief survey of a few of the problems being attacked by the entomology department makes it clear how closely related agriculture and entomology are.

Wool Team

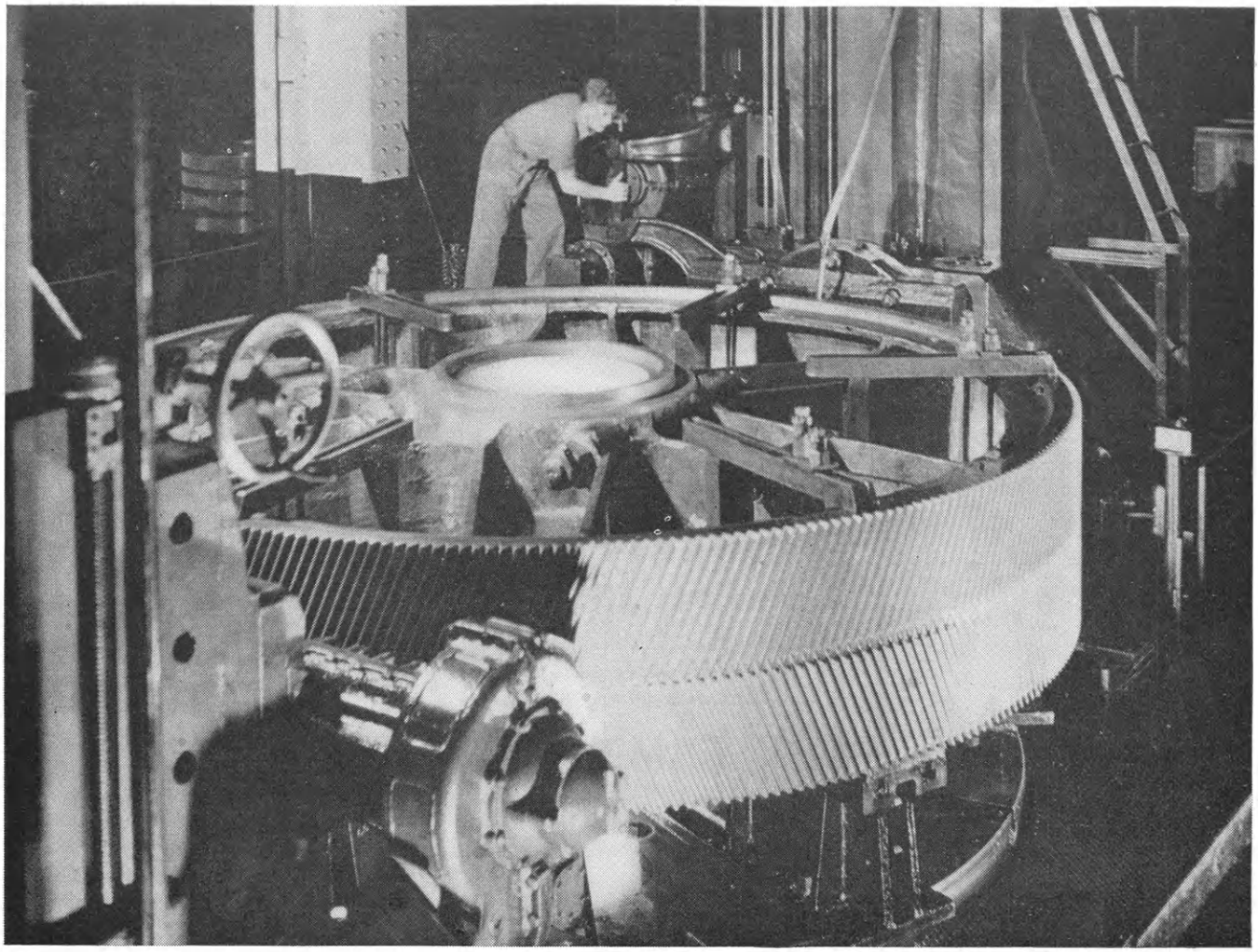
(Continued from page 5)

the warehouse. The trip will be made shortly before the Denver show.

This course is designed to help the student when he starts work as county agent, vocational ag teacher, etc., to teach the farmers in his community to grade their wool. By grading his own wool and sacking it into the different grades separately, the farmer can make more money for himself. He is bid more on the sack if it is graded than if it is "flock run."

The average farm flock shouldn't grade into more than two grades of wool, Dr. Bell said.

In grading wool at first, the student actually measures the fibers with a micrometer. Fine wool has a diameter in the fibers of about 7 or 8 ten thousandths of an inch. After some time working wool fibers with a micrometer, these students can tell the average fineness of the pelt with a surprising degree of accuracy. Sometimes the student must take out a few fibers from the pelt and gauge the entire pelt from those few. Pelts vary in fineness at different points. The variation in the pelt also helps to place the wool into its commercial grade. Dirt, trash, excess oil and grease, blood, paint, spottiness of the wool, thin patches and hair all play their part in wool grading.



"...provide for the common defense, promote the general welfare..."

OIL helps in the practical realization of these words from our nation's Constitution. America's machine power, once again straining to meet both civilian and military demand, depends on the skill of trained technical men to avoid costly shutdowns, to keep continuously on the job.

Throughout the history of machines, corrosion has been one of their deadliest enemies. Standard Oil has always endeavored to improve its industrial oils, to make them not just better lubricants but more effective rust inhibitors as well.

Our industrial oils contain newly developed additives that prevent much of the trouble caused by corrosion in bearings and moving parts. These oils have the ability to form protective surfaces on areas subject to corrosive forces. They cut down lost time that robs machinery of its ability to produce.

Yes, there's more to "oil" than just oil. Standard Oil research, which looks to America's engineering colleges for new blood, is constantly facing and solving problems so as to increase efficiency and pack more hours and days into each year of machine operation—at a time when even minutes count.

Standard Oil Company

910 South Michigan Avenue, Chicago 80, Illinois

STANDARD

Royal Winners

(Continued from page 4)

and went on to make grand champion pen of the show. An individual middleweight Poland also took a championship.

The swine section brought home 31 ribbons altogether, with 14 firsts, seven seconds, and several runner-ups.

College sheep won a grand championship too, another championship, three reserve champs, nine firsts, seven seconds, 12 thirds, and 12 fourths.

In Southdowns the College had reserve grand champion pen of wether lambs. Individuals from the pen went on to take the reserve and grand championships both, "the first time that one exhibitor has won both the reserve and grand championships so far as I know," said Dr. T. Donald Bell, animal husbandry professor.

In beef cattle two breed championships were won. A junior yearling Shorthorn steer, KSC Prince, and a senior yearling Angus steer, KSC Tex, did the honors.

The College also took first with a junior Shorthorn calf, second with a senior yearling Shorthorn calf, first with a junior yearling Shorthorn, and second with a senior yearling Hereford steer calf.

Angus breed brought home a blue ribbon with a senior yearling Angus steer calf. Second and third went to a group of three Hereford steers.

It very seldom happens that one exhibitor wins two breed champion awards in one year, said Coach Good. The champion Shorthorn steer dressed out 71 per cent. This is the highest that any animal has dressed out in the history of the Wilson packing company, he said.

The woman was mailing the old family Bible to her brother in a distant city. The postal clerk examined the heavy package carefully and inquired if it contained anything breakable.

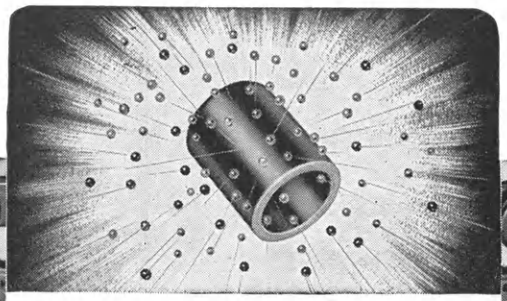
"Nothing but the Ten Commandments," was the quick reply.

The congressional representative's wife sat up in bed with a startled look on her face, and whispered to her spouse, "John, there's a robber in the house."

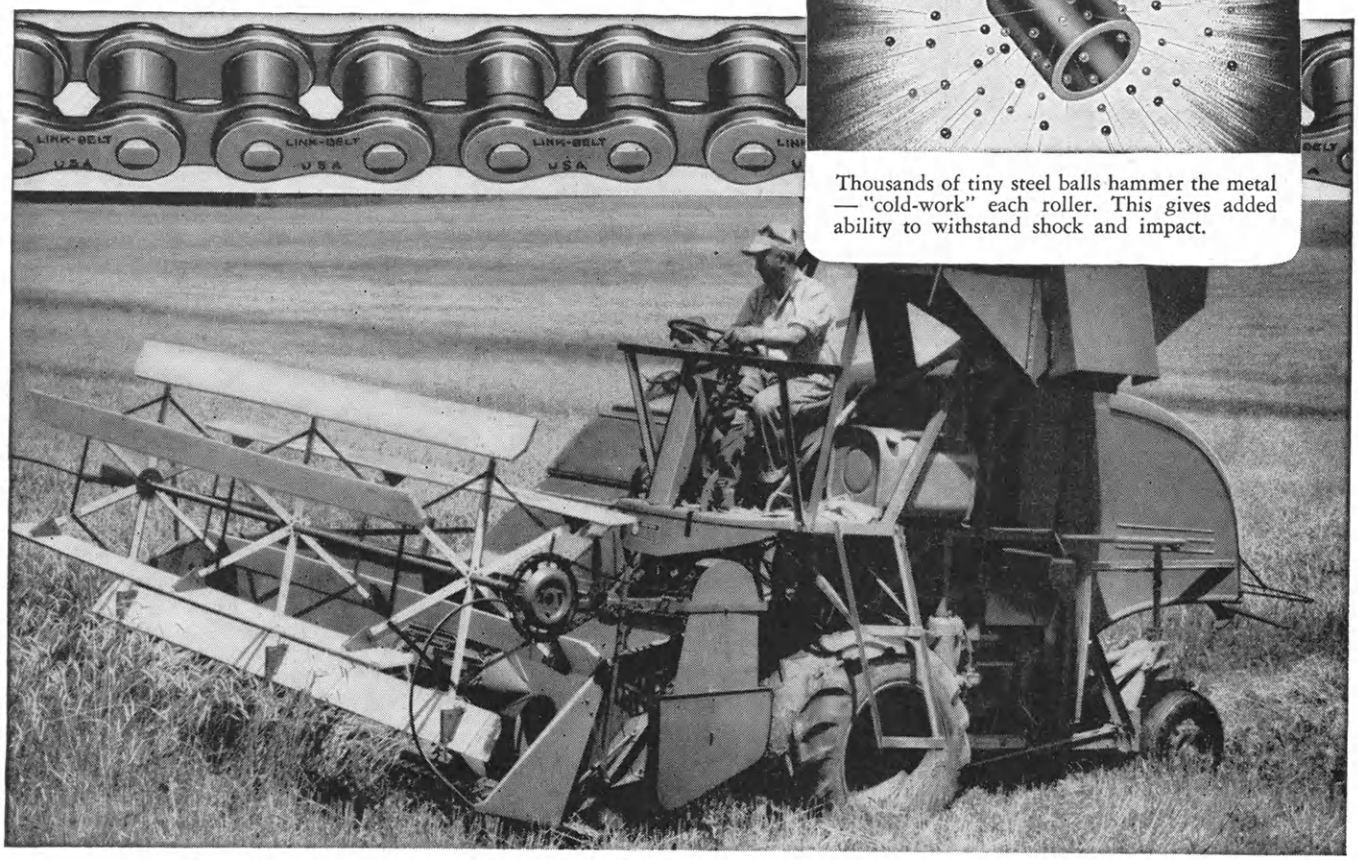
"Impossible," he snorted. "In the Senate, yes; in the House, never!"

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

LINK-BELT builds extra fatigue life into roller chain . . .



Thousands of tiny steel balls hammer the metal — "cold-work" each roller. This gives added ability to withstand shock and impact.



Famous manufacturer selected Link-Belt Roller Chain for high-speed, heavy-duty cylinder drive. This modern harvester also utilizes Link-Belt Detachable Chain for both power transmission and elevating.

. . . to reduce farm machinery maintenance

LINK-BELT has worked hand-in-hand with America's farm machinery manufacturers since 1875 to step up farm production

WHEN a farmer stops his combine to dig out a cylinder that's become "slugged" with grain, it's a waste of precious harvesting time. To clear the cylinder under the machine's power requires a drive with enough resilience to withstand heavy shock loads repeatedly.

Link-Belt Precision Steel Roller Chain can and does take it — season after season.

Naturally the chain that handles this tough service can successfully meet other severe requirements. For continuous Link-Belt research has developed — in addition to shot-peened rollers — other extra-strength features. For example, a special process, of value on a range of sizes, eliminates a common cause of stiff chain. And the chain receives a dramatic increase in fatigue life, thanks to special metallurgical factors and manufacturing steps.

That's why you see so many farm machines equipped with Link-Belt Roller Chain. A positive drive — resistant to all kinds of weather — it's tops for efficient, long-life power transmission.

LINK-BELT

PRECISION STEEL ROLLER CHAIN

World's Largest Manufacturer of Power Transmission and Conveying Machinery

LINK-BELT COMPANY: Indianapolis 6, Chicago 9, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa). Offices in principal cities.

12,324

LP Gas

(Continued from page 12)

sures. This requires more expensive equipment; perfect functioning is a primary factor for safety. Some persons have the mistaken idea that LP gas is dangerous. It is not. When properly handled, it is no more dangerous than gasoline, Professor Larson said.

Upper cylinder lubrication is a controversial issue. Many people believe that an upper cylinder lubricator is necessary, while others feel that it is needless. Also, since the LP engine is operating at higher exhaust temperatures, valve life is sometimes shortened. Using a lean fuel mixture will encourage valve burning. One tractor company is using a harder valve seat to lengthen valve life.

The initial cost is higher. Equipping a tractor with a conversion unit will cost between $150 and $300. New tractors are $250-$300 higher when built to burn LP gas.

How popular are LP gas tractors in Kansas? Latest figures indicate that approximately 9 per cent of Kansas farm tractors are LP powered. This is a remarkable increase considering that 10 years ago only one company was marketing this type of tractor. Other implement companies have started selling their models since then.

LP gas has been used for many years in Kansas farm homes for cooking and heating. Propelling the family tractor around the west 40 is a new use for this one-time waste by-product. Butane, propane, or any mixture of the two may constitute LP gas.

These gases come from three principal sources: natural gasoline plants, recycling plants where the wet gas is drawn from natural gas wells, and oil refineries. Formerly, the refineries disposed of these unwelcome tag-alongs by burning or flaring. Some states have passed laws against such wastefulness. Petroleum companies have encouraged farmers to buy large storage tanks for home heating.

This was beneficial to both the farmer and the refiner, as the farmer could buy the fuel at an attractive price and the refiner's disposal problems were solved. The refiners were still left with disposal troubles in the summer. With the advent of LP gas tractors, this seasonal bulge is tending to equalize itself.

Packers

(Continued from page 7)

products. Another service in the less heavily populated areas is the selling to retailers by means of "route cars" which are refrigerator cars which follow definite routes and deliver orders obtained by the company salesmen. Refrigerator trucks are also used, but their use is limited to a radius of approximately 100 to 150 miles from the plant.

The work of the meat packer ends with the distribution to the retailer, but at that point the most important part of the task is over. In fact, without the initiative displayed by the meat packers in the development of the refrigerator cars, in the Mid West there would have been much delay in the development of the land and its resources. The great and hardy pioneers might have developed the land only to find that its very productivity contributed to the poverty of its population. Instead, through methods of distribution developed by the packers, the Mid West is enriched by the ability to sell its surplus livestock, dairy, and poultry products in the ever-open markets of the eastern seaboard.

There, briefly stated, is the contribution of the meat packers to the livestock industry. About three-quarters of the consumer's meat dollar is returned to the producer in payment for his livestock. The remainder represents the cost of buying, processing, transporting, storing, wholesaling, and retailing, plus whatever the packer can manage to obtain.

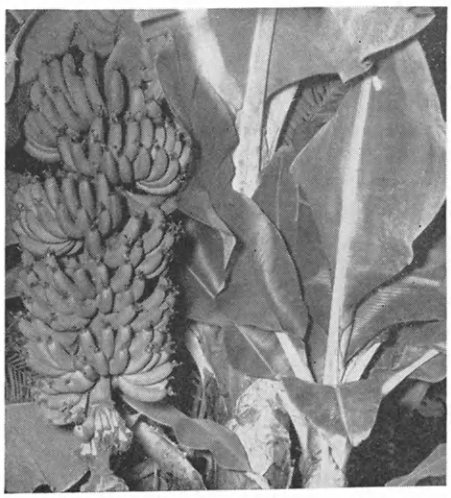
According to late figures, this profit amounts to about one and one-fifth cents on each dollar of sales; this is surely a reasonable margin of profit, considering the risks taken in the packing business. These risks include brisk competition, close government inspection, and the low profit margin. That profit largely depends on the skill of the buyer in calculating the yield of meat from a particular animal in a group of animals while watching them mill around in a stockyard pen.

Perhaps then, when you, as a producer, obtain what you consider to be a poor price for an animal, or you, as a consumer, pay more for meat than you would like to, you will make a wider examination of the factors leading up to your complaint

(Continued on page 28)

Two-Year Sabbatical . . .

Bananas Grow Again



By Diane Blackburn

WHO SAYS BANANAS can't be grown in the Midwest? It's been done this year at K-State.

The banana tree has been in the College conservatory for forty years. Its fruiting stopped two years ago when the tree was damaged by hail. This was the first year it has produced fruit since then. Under normal conditions it bears fruit every 18 months. However, most banana plants grown in conservatories do not bear fruit at all.

A banana plant is a rapidly growing, herbaceous perennial which contains 85 per cent water. The banana belongs to the same family as the canna—Musacea. The common species has two types of bananas: the plantain and the common banana. The common banana can be eaten raw, but the plantain must be cooked.

The banana tree is probably the largest plant on earth not having a woody stem above ground. The real trunk or stem is an underground rhizome upon which large eyes or buds are developed. Leaves shoot out of the ground from these buds, forming the graceful, palm-like banana plant. The leaves range from 8 to 12 feet long and 2 feet wide.

The stalk of the plant is composed of overlapping leaves, or sheaths, making it resemble a huge stalk of celery.

A flower bud rises from the center of the leaf sheaths. The young flower bud is similar to a large ear of corn enveloped in its husks. As the flower bud increases in weight and the plant reaches maturity the purple bracts drop, showing small bananas. The bananas point outward, but bend upward as they become larger. The average plant produces 60 to 180 bananas weighing 50 to 150 pounds.

After the plant bears a bunch of bananas the stalk weakens and the plant dies. Suckers sprout from the rhizome, producing another plant to continue the fruiting. If insects, diseases, and climate do not interfere, a banana plantation may produce indefinitely.

Most fruits have better flavor when tree ripened, but not the banana. The bananas should be cut from the tree while the fruit is green. Separation from the plant hastens the ripening processes, changing starch to sugar and removing acid. Unripe bananas contain so much starch that they must be cooked to be edible.

Bananas are easily digested and contain almost all of the elements necessary for a balanced diet, including vitamins A, B, C, and G. This nourishing fruit is also rich in proteins, fats, carbohydrates, and ash.

In the tropics, banana plants play an important role, much like wheat does in the United States. The principal banana producing countries are Jamaica, Mexico, Honduras, Colombia, and Brazil.

The banana has various other uses besides that of a food. Banana leaves are torn in strips and woven into mats and coarse cloth. The fiber from the plant can be made into cords and paper.

The variety of banana at K-State is not known, but it is not a variety suitable for commercial use. While the variety in the conservatory has better quality than those grown commercially, the fruit is not as large and would not stand shipment as well.

More Bites

(Continued from page 15)

ized with several alfalfa selections to combine desirable qualities into one superior variety. This method is commonly used as a speedier means of improving alfalfa.

In the polycross nursery, several rows of each selection are planted. Each row is within cross pollination distance of a different set of other alfalfas. By testing the selections obtained from the resulting crosses, lines unable to transmit desired qualities to progeny can be eliminated. From that stage, good qualities of the proven lines are combined into one superior variety, a synthetic alfalfa hybrid.

Of several promising lines produced in this manner, Grandfield is especially interested in one with parents that average 12 per cent higher hay production and 20 per cent higher wilt resistance than Buffalo.

As for the spreading alfalfas, these are being tried because of their spreading habit and their cold weather resistance. Although grass-alfalfa mixtures yield about twice the forage of grass alone, alfalfa is not grown extensively for pasture or in pasture mixtures.

The main reason for this is that alfalfa does not have sufficient grazing resistance. It is believed that spreading alfalfas will have the ability to withstand more grazing than common types. Thus they show promise as a potential pasture crop in the Great Plains.

Two varieties, Rhizoma and Talent, are now growing on the agronomy farm nurseries. Both are of the rhizominous type which spread by rhizomes. Rhizomes take root at the nodes and new shoots promptly sprout.

Creeping Rooted is the name applied to several Canadian lines now under observation. They are characterized by lateral roots several inches beneath the surface which also send up shoots and take root.

Parent plants and offspring of the spreading type may attain a diameter of several feet in two to three years. These are Siberian alfalfas which should compete successfully with pasture grasses in a legume grass mixture.

Several problems must be solved before the spreading alfalfa can become of a practical value to Kansas

agriculture, Grandfield said. By plant breeding methods a strain must be developed which will produce more seed than those now in existence. They must produce more forage and should have some wilt resistance.

Rodeo

(Continued from page 3)

particularly interested in the Little American Royal, do not want an Ag Day scheduled on the same weekend. They feel they could not prepare for both events at once.

For this reason the Ag Council decided that Ag Day should not be scheduled on the same weekend as the Little Royal. But it might be scheduled on the following weekend.

If it were scheduled one week later, the animals in the Little Royal could be paraded as part of the Grand Entry, opening the rodeo, one Council member commented.

Others feel that Ag Day should be in the fall. The Horticulture club says that their department could put on a much better exhibit in the fall than in the spring. Agronomy is in about the same position because of seasons.

Ag Day could be included in Ag Barnwarmer Week, other council members commented. They think Ag Week is rather dull except for the horse tank.

If the Ag Day does materialize it will be much like the old Ag Fair. Back in the 20s the Aggies boasted a ferris wheel and other carnival attractions at the Fair. The ferris wheel had the distinction of being the only one in the world designed, constructed, and operated by college students, according to the March, 1923, issue of the Ag Student.

There were side shows, candy wheels, ice cream and pop stands, a shooting gallery, doll wheels, and hamburger stands. Coupled with this were the departmental exhibits.

The Ag Fair was opened by a Grand Parade. Each department entered a float in the parade. The livestock departments paraded the K-State livestock which had won prizes at the American Royal and the International during the year.

Over all, the Ag Fair was a combination educational and entertainment program designed to acquaint visitors with the Ag School. This is what the Ag Council hopes will be accomplished by an Ag Day.

Bradley Joins Ag Education

By Don Shoup

A NEW MEMBER of the Agricultural Education staff is Assoc. Prof. Howard Bradley. He has been associated with vocational agriculture in high schools for the past 20 years. Bradley is the past president of the Kansas Vocational Association and the Kansas Vocational Agriculture Teacher Association.

He received his bachelor's from Kansas State college in 1930 and his master's in 1937. He began teaching vocational agriculture at Harveyville in 1930; later he taught at Oskaloosa, Simpson, and, in 1940, at Beloit. He came to K-State from Beloit.

While at Beloit, Professor Bradley developed one of the top vocational agriculture departments in the state. The Beloit chapter received the Gold Emblem classification seven years consecutively, representing the top group of chapters in Kansas.

Professor Bradley centered his teaching on the development of a vocational agriculture program around each boy's farm home and community. Chapter members received training in agriculture subject matter, community affairs, and the development of individual leadership. Leadership schools, judging teams, public speaking, and farm mechanics contests help attain this goal.

The backbone of vocational agriculture, Bradley says, is the farming program developed by the high school boy, during school, which will establish him in farming upon graduation.

Here at Kansas State, Professor Bradley will apply his practical experience in teaching high school agriculture to the training of future teachers of vocational agriculture.

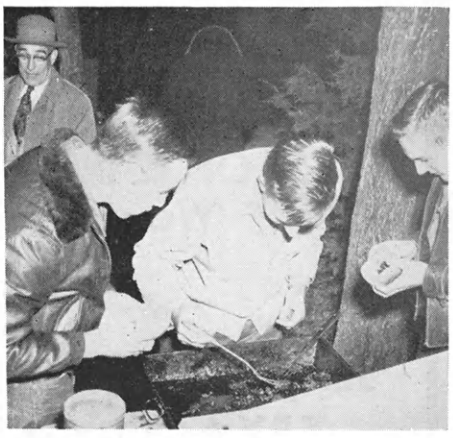
Howard Bradley

Packers

(Continued from page 24)

before making the accusation that the packer is trying to squeeze an extra fraction of a cent out of your pocketbook.

Steak Fries . . .



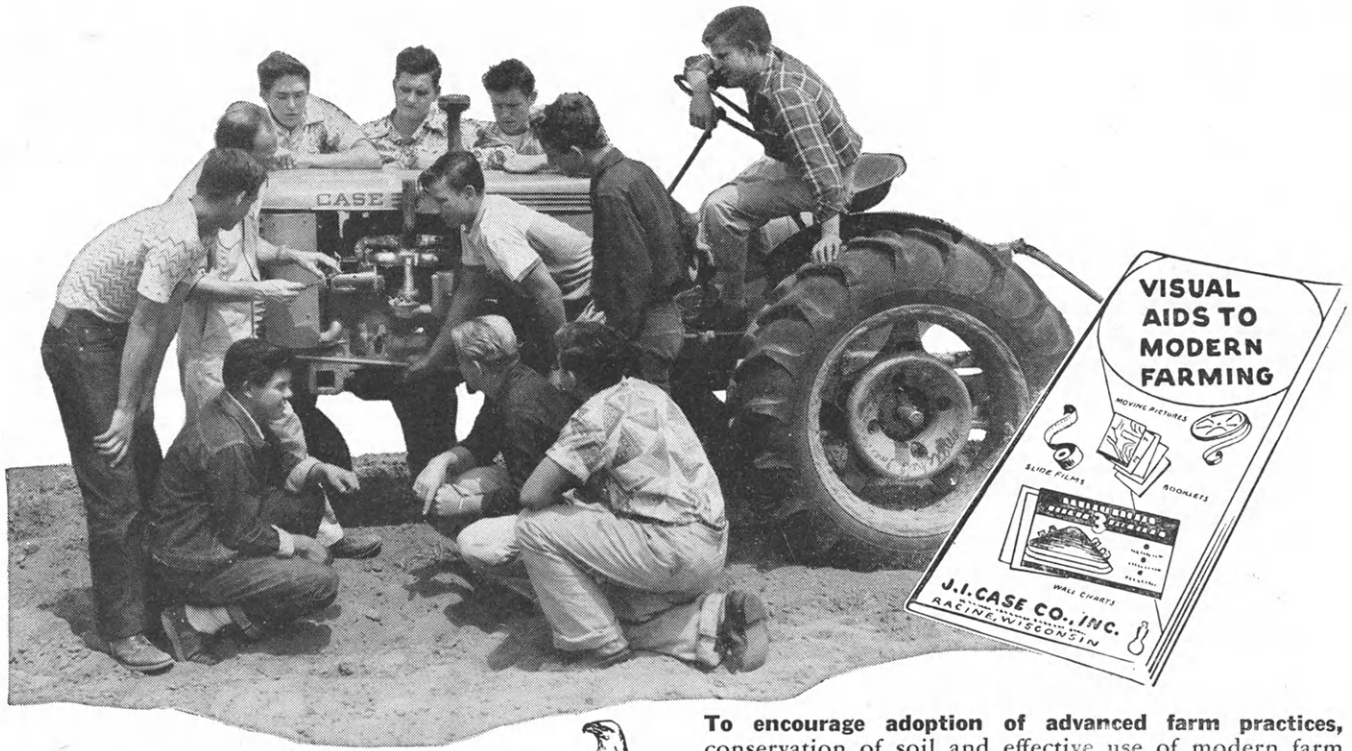
FOOD AND FUN filled everyone at the annual Block and Bridle steak fry at Top of the World. Steaks disappeared rapidly.

SMOKE GETS in the cooks' eyes at the Klod and Kernel steak fry. Nineteen were initiated into the big Agronomy Club.

YOU CAN Take It With You...

● Wherever you go, whatever may become your career—whether you return to the farm or seek your fortune in the smoky canyons of the city—the mechanical knowledge and skills you bring with you to college, plus those that you acquire there, will go with you to illumine your whole life. Your understanding of engines, of lubrication, of the nature of levers, screws, and hydraulics that you learned on the farm, in farm club work or in school, will stay with you. It will make you a more skillful motorist, a more capable employee, and later a wiser administrator. If you return to the good life of the soil, the fragrant furrow and friendly herd, your mechanical talent will make you a better farmer, better able to make use of the blessing of farm tractors and machinery.

Forget not your days on the tractor, the rainy afternoons in the shop, the dusty demonstrations in the field. Let these things go with you, through college and after—a foundation for your study of science, a resource for the routine of life. Whatever state or nation may be your mailing address, you may be sure that Case tractors and machinery are working to make farm life easier and more abundant. And whatever may be your part in the choosing of farm power machinery, look into the cost-saving, long-lasting character built into Case products.



CASE

SINCE 1842

To encourage adoption of advanced farm practices, conservation of soil and effective use of modern farm machinery, Case has created some sixty items of educational materials. There are 16-mm. movies in full sound and color, slide films with sound or script, booklets and wall charts. Films are loaned and printed items furnished without charge to college classes, farm and civic clubs, on request through Case dealers and branch houses. For descriptive listing ask also for new catalog of "Visual Aids to Modern Farming." J. I. Case Co., Racine, Wis.

Turkey Tales

(Continued from page 13)

was half way up the engine block. The oil kept the sparks dry.

What Turkey needs most is an educational program so her people can develop their resources better, Pine pointed out. The Technical Assistance project is designed to help educate agricultural people to that end.

One project included a group of agricultural specialists from the United States who worked with the Minister of Agriculture to advise him on Turkey's agricultural problems. These specialists are trying to set up an agricultural extension service in Turkey much like our own.

Turkey is about the same elevation as western Kansas, but has less rainfall. Small grains are grown on over three-fourths of the crop land, Pine said.

The chief exports are grain and cotton. Most of these exports go to European countries.

There is much land in Turkey suitable to agricultural production which isn't being used. It is hoped that the program now in progress will get more of this land into production, Pine stated.

Dr. Pine's wife and family accompanied him to Turkey. They took their own household goods and car. Dr. Pine thought their temporary home in Turkey would be a small adobe hut with dirt floors, a hole for a chimney, few windows, and low rent.

Instead he found a $100 a month rent tag on his new home—a five-room apartment. There was a balcony, but no closets, or no built-in cabinets in the kitchen. The apartment was on a poor street which was very muddy in wet weather. Later they moved to another five-room apartment renting for $180 a month.

The Pine family lived at Ankara. They traveled considerably, but the highlight of their trip was a 2,500 mile drive through the Holy Land. They found Turkish people very kind, courteous, and honest. But living conditions and business methods were very different from American standards.

"Turkey is a young republic, dating from 1923. Although she appears to be undeveloped, considerable progress has been made in the last 28 years. The people believe in free

enterprise and private property. She is a strong ally of the western countries," Pine said.

Dr. Pine graduated from K-State in 1934 with a bachelor's degree. He worked as county agent in Labette county one year, returning to K-State as a research assistant in farm management and received his master's in 1938. In 1948 he received his doctor's from Minnesota.

Rebound

(Continued from page 14)

back into a high state of production.

Conifers and hardwoods grown at the nursery are used in soil conservation districts for controlling erosion. Their principal uses are for field shelter belts, farmstead plantings, wild life protection, gully erosion and pond bank protection.

I like to eat a lot of sweet
That's how I got my pouch.
I think of exercise and diets
While snacking on the couch.
But girls just love fat figures
They love me more each year
I'm ninety and my bank account
Is very fat and dear.

The Last Word

CONTROVERSIAL THOUGH the subject may be, last month's flood forum illustrated one point about which there is no argument—you've got to be able to express yourself capably as a public speaker to get your ideas across.

For Ag School men, this is particularly important if we don't want to be smothered with screwball ideas by men who know little about farming but who do have the gift of gab.

Many of us will leave K-State for jobs where that gift is essential. Ideas without expression are lost. County agents, soil conservationists, extension workers, and the like will all have to talk and write coherently. Yet most of us neglect training in speech.

It's a difficult thing—that art of talking. The late Oliver Wendell Holmes expressed it this way. ". . . But remember that talking is one of the fine arts,—the noblest, the most important, and the most difficult,—and that its fluent harmonies may be spoiled by the intrusion of a single harsh note."

Here at K-State, we have a reputable speech department for such training. Further, there is also a course in radio talk with special sessions organized for agriculture offered now. George Arms, director of radio training in the speech department, said that the course is offered on "an experimental basis," which means students can slant the study to suit their own needs.

So many Aggies know little about radio technique. Likewise, so many radio majors know little about agriculture. A bit of mutual exchange would be profitable. If you've got some electives vacant, it would pay you to investigate.—smc

LET'S SELL OUR COLLEGE. Yes, we the students at Kansas State have a particular obligation to our College—to sell it to others.

How else can we hope to make our College greater if we don't sell it to the people of the state?

True, our judging teams, athletic teams, extension service, and other groups on the campus do a terrific job in publicizing the College, but the individual students have not been doing their part.

People back home frequently get the impression that college is a place where young people go to have a good time on their parents' money. We know this is not true . . . entirely. But how can the people back home find out the truth?

We must tell them. If we don't, they continue to think college is just a four-year joy ride. Or, as Robert M. Hutchins of Ford Foundation said, a four-year housing project for young people between the ages when they graduate from high school until they're old enough to work.

How should we tell the folks back home just what goes on at K-State?

One of the easiest ways is to send copies of campus publications home. The Collegian gives an overall, day to day general account of life at K-State; the Ag Student will show the folks about the Ag School. These two publications give a person off the campus an idea of what the student at Kansas State does for four years.

Another way is to be ready to answer any question concerning K-State which might come your way. When you hear an unfounded statement about K-State or colleges in general be ready to put them straight as to the actual truth.

Finally, tell high school students you know at home about the many advantages and opportunities awaiting students at Kansas State. Many times local FFA chapters would welcome a discussion by a K-Stater about the College.

The coming Christmas holidays will be a good chance for you to tell the folks back home about our College. The result will be a greater K-State and you will have an active part in making it greater.—D. F.

Chit Chat

(Continued from page 18)

mendations for having gotten out a most interesting, readable, and intelligent publication that reflects credit on you, the School of Agriculture, and the entire College."

Millers from Afar . . .

STUDENTS FROM SIX COUNTRIES enrolled in K-State's milling department this year. They are, left to right, Fawzy Refai, Egypt; Christian Kongsore, Norway; Halvor Norheim, Norway; Evert Benes, Netherlands; Carlos Cortini, Argentina, and Hans Hungerbuehler, Switzerland. Kansas State's milling department is the only one of its kind in the world.