

THE KANSAS

# Agricultural Student

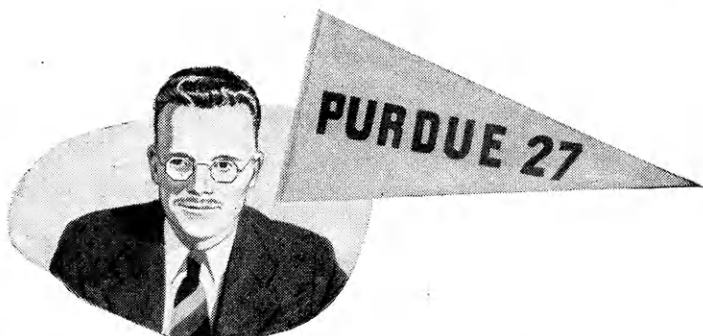


# Campus to

# GENERAL ELECTRIC

## JET DESIGNER

### *The Story of* **ALAN HOWARD**



**I**N CHARGE of a group of G-E gas-turbine engineers and technicians, Alan Howard has directed the design and development of two General Electric engines that are today powering some of our fastest planes.

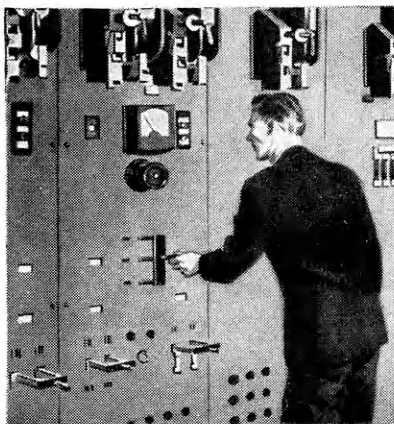
One, the T-G 100, or Propjet, is the first propeller-drive gas turbine in the world. Giving jet thrust in addition to spinning a propeller, the Propjet joins with a pure jet "booster" engine in the Consolidated XP-81 to provide the small, sleek fighter with nearly as much power as a Superfortress!

Alan's second design, the T-G 180, is a pure jet engine, a departure from earlier jets in that it is designed on "axial flow" principles which make possible a super-streamlined torpedo shape. It is the power plant for the Republic XP-84 Thunderjet.

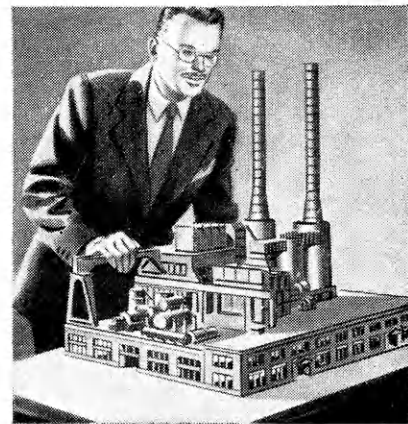
Gas-turbine engineering is, of course, a highly specialized field. Alan, however, is thankful today not so much for any special knowledge he learned in college, but for the solid understanding of engineering fundamentals which he gained as he worked for his B.S. degree at Purdue. This understanding enabled him, on coming on "Test" with G.E., to switch from electrical to mechanical engineering and to work in such diversified fields as television, mercury boilers, steam-electric locomotives and steam turbines.

When, in 1941, Alan Howard undertook the design of Propjet and axial-flow engines, his sound training in basic engineering principles, followed by his years of practical experience with G.E., fitted him well for success.

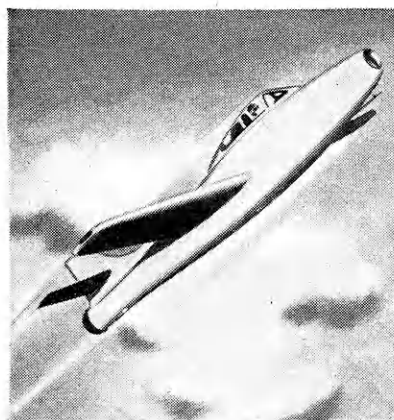
Next to schools and the U.S. Government, General Electric employs more college engineering graduates than any other organization.



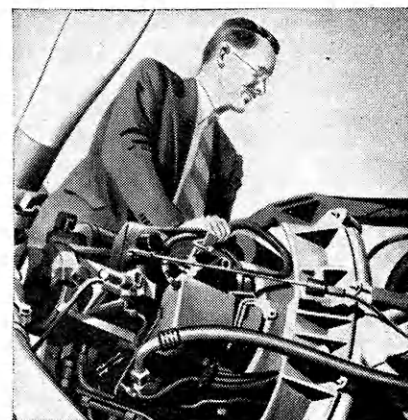
At Purdue University, Alan majored in electrical engineering. His thesis outlined a method of photographing arcs.



With G.E., one of his early jobs was on mercury boilers. Model shown here served as guide for construction of full-size plant.



Assigned to work on gas turbines, Alan designed an improved "axial-flow" jet engine, giving planes like the XP-84 Thunderjet great power, speed and long range.



Flight engineers predict a bright future for his Propjet engine, which gives planes both propeller-drive and jet thrust. It may power big commercial airliners tomorrow.

# GENERAL ELECTRIC





THE KANSAS  
*Agricultural Student*  
KANSAS STATE COLLEGE  
OF AGRICULTURE AND APPLIED SCIENCE  
MANHATTAN, KANSAS

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Millers in Digest

A feature article, "Physical Dough Testing as a Measure of Quality for the Baker", by Prof. John A. Johnson and Dr. C. O. Swanson, staff members of the milling department, appeared in the December issue of Bakers' Technical Digest.

Professor Johnson and Doctor Swanson discuss the various methods of determining flour quality and flour characteristics for the baker by the use of physical dough testing equipment.

Professor Johnson and Doctor Swanson based their discussions on their research experiences and departmental data. Doctor Swanson, former head of the milling department, is devoting part time to milling research as professor emeritus. Professor Johnson, who joined the milling department staff in 1940, is an instructor in experimental baking, and wheat and flour testing. At the present he is also conducting research on physical dough properties and their relation to baking.—E. D. S.

Lush Receives Award

When Dr. A. D. Weber, head of the Department of Animal Husbandry, presented the Morrison Award to Dr. Jay L. Lush of Iowa State College early this month he was honoring another Kansas State alumnus. As retiring president of the American Society of Animal Production, Doctor Weber made the award at the 38th annual meeting of the society. The meeting was in Chicago.

Doctor Lush received bachelor's and master's degrees from Kansas State in 1916 and 1918, and his doctor's from the University of Wisconsin in 1922.

A gold watch and \$1,000 in cash were given to Doctor Lush in recognition of his experimental work in animal feeding and breeding. This was the first of five annual awards to be given by Prof. and Mrs. F. B. Morrison of Cornell University to outstanding members of the society.

On the Cover--

ANDERSON HALL, the most loved and photographed building on the campus, stands majestically amid the enframement of the evergreens.—Photograph by Floyd Hanna, college photographer.



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# Mildred Hall Crowned Queen of Barnwarmer



Dean Throckmorton crowns Mildred Hall queen of the 1946 Barnwarmer. Princesses Charlene Warner, Mary Smith, Yvonne Cline, and Becky Wilkinson appear with her on the throne of baled hay.

By MARVIN RIGGS

Seated atop a throne of baled hay and surrounded by a rustic group of subjects, Miss Mildred Hall was crowned queen of the annual Ag Barnwarmer October 26 in Nichols gymnasium.

The queen was picked by ballot from five candidates who were chosen by the Agricultural Association. Selection of the candidates was made from 25 coeds representing sororities and independent houses of the campus. Serving as her attendants during the coronation of Miss Hall were princesses Mary Smith, Independence; Yvonne Cline, Kanopolis; Charlene Warner, Wamego; and Becky Wilkinson, San Angelo, Texas.

Queen Hall is from Coffeyville and is a junior in Home Economics. She is a member of Chi Omega. She is a farm girl as her father owns and operates a dairy farm.

Her father is Carlton Hall, graduate of the 1920 class of the School of Agriculture. As far as anyone in the agricultural department knows this is the first time that a Barnwarm-

er queen has been the daughter of an alumnus of Kansas State College. Mr. Hall is a prominent community and state agricultural leader. Miss Hall's brother, William Carlton Hall Jr., is a 1944 graduate of the School of Veterinary Medicine and now has a large-animal practice in partnership with Dr. McEwan at Elburn, Illinois.

Crowning of the queen by R. I. Throckmorton, dean of the School of Agriculture, climaxed a week's gala activities with Ag men wearing overalls and women wearing print dresses. It was the end of a strenuous week for the candidates, as they had pitched hay, driven tractors, milked cows and called hogs in order to meet the qualifications of an Aggie queen.

The Ag-Vet peace pact was observed at the Barnwarmer and it was not necessary to form the traditional paddling line. The pact was entered into in 1945 after social functions of both the School of Agriculture and the School of Veterinary Medicine had been repeatedly disrupted by outside persons, and it is still in effect.

Autumn scenery with golden leaves streaming across the ceiling decorated the gymnasium for the occasion. Over 200 dozen doughnuts were eaten during the ball and a special "aged in the wood" cider flowed freely throughout the evening.

Advertising the Barnwarmer, Ag students and Barnwarmer princesses were driving tractors all over the campus Friday afternoon October 25. The bark was scraped off several trees and one was completely uprooted as the girls roared through the campus. One professor jumped off the sidewalk on to the grass and hid behind his brief case while the tractor passed in front of Anderson Hall.

Clad in their rural finery, nearly 500 couples danced to the music of Matt Betton and his overalled band. Matt also presented his own floor show with an excellent program.

Someone tipped off Matt that Reitzel Zimmerman was experienced at calling square dances. Finally the modest lad was coaxed from behind his girl friend and was soon enjoying himself calling dances. A partner was

soon found for his girl and they enjoyed the square dancing along with all the other participants and onlookers.

Astonished workers dashed out of the Shops at the sound of the girls calling hogs. One contestant was so hoarse the next morning that she couldn't answer roll call at her 8 o'clock class. When a Duroc-Jersey shoat came charging down from the Animal Husbandry farm, there was no doubt in anyone's mind but that Charlene Warner had won the contest. Miss Smith and Miss Wilkinson placed second and third, while the other contestants, unable to stir the pigs at all, did not place.

Shortage of trees was an advantage to the girls as they entered into the tractor driving contest. Building and Repair barely escaped a tiring job as one driver stopped short of crashing the tennis courts, when she accidentally shifted into road gear. The winner of the contest, Miss Warner, proved to be an expert with a time of four minutes, two seconds over the course. It was rumored that she spent last summer on her father's farm, but she evidently didn't do any hay pitching as she almost punctured the rear tractor tire with her pitch fork. Miss Warner nosed out her closest competitors by only a few seconds. Miss Smith completed her circuit of the course in four minutes, nine seconds and Miss Hall finished in four minutes, 11 seconds.

Miss Smith proved her milking ability as she outstripped the other princesses with 3.7 pounds of milk in five minutes. Miss Cline was second with 1.1 pounds. The princesses Hall, Warner, and Wilkinson were able to

(Continued on page 27)



Dean Mullen, Mrs. Mullen, and Mrs. M. L. Otto watch the dancers at the Barnwarmer.

# Dr. H. E. Myers Views Middle-East Farming

By MELVIN BURKHEAD

Dr. H. E. Myers, head of the Department of Agronomy at Kansas State College, has long been one of the popular professors on the campus, especially among agricultural students. While a member of the faculty of this college, he has made many friends among students and men throughout the country both in and out of his profession. With the retirement of Dean L. E. Call and his replacement by R. I. Throckmorton as Dean of the School of Agriculture last July 1, it was a well deserved advancement when Dr. Myers was appointed to the position of head of the agronomy department.

After becoming professor of agronomy, Doctor Myers was recognized as a leader in his field. This recognition resulted in his being selected by the State Department in August 1943 to serve as an agricultural adviser to the Middle East, along with other American and British agricultural specialists. This group was headed by Russel S. Kifer, a graduate of Kansas State College who was serving at the time with the Bureau of Agricultural Economics, Washington, D. C. Due to curtailment of shipping space caused by the war, the committee was chosen to advise on needs for agricultural items requested for import and to increase local production of foodstuff in the Middle East. These men assumed their duties in August 1943 and were to serve for a period of two years or for the duration of the war, whichever was the shorter. It was in July 1945 that H. E. Myers returned to his position on the faculty at K-State.

Although this group was headquartered in Cairo, Egypt, they were called upon to study agricultural problems not only in Egypt but in the Anglo-Egyptian Sudan, Palestine, Syria, Lebanon, Iraq, Iran, Saudi Arabia, and on the Bahrein Island in the Persian Gulf as well. While Doctor Myers was on one of these missions the accompanying photograph was taken. Doctor Myers, dressed in a native Arabian garb, is on the left.

Local problems and situations pertaining to crops, livestock, and farming and irrigation methods were studied. The crops grown in this area are similar to those grown in the arid and semi-arid regions of our own country, with wheat, barley, corn, sorghums, and various other fruits and vegetables being grown locally.

The livestock consists chiefly of cattle, sheep, goats, camels, and donkeys. Hogs are rare since the Moslems, the dominant religious order in this area, do not eat pork.

In methods of farming and irrigation this group met its biggest problems. Most tillage operations involved hand labor and the use of primitive tools. Plowing was done with wooden plows with steel tips, planting and cultivation were by hand, and harvesting was accomplished with the sickle or the scythe. Threshing was performed by a crude apparatus which literally chopped the harvested crop into fine pieces, so that the grain could be separated from the straw and chaff by the wind.

Irrigation methods were as primitive as the farming methods. They employed ancient practices such as the individual buckets, crude mechanisms consisting of chains of buckets, the Archimedes screw, flooding of basins, and the Kanat or tunnel

method of Iran. The latter involved tapping with tunnels the water table situated at a higher elevation than the area to be irrigated to carry water to the fields. This method is being used on 85 percent of the irrigated land of Iran.

The agricultural students of these countries are being trained in schools and colleges. Egypt has two agricultural colleges, with three secondary schools of agriculture. Iraq, Iran, Syria, Palestine, and the Sudan have at least one agricultural college apiece.

Doctor Myers enjoyed his work in the Middle East and derived much valuable experience which he willingly shares with his associates in this country. He found the citizens of these various countries extremely cordial and consequently made friends readily with them.

## Wins Skelly Award

Herbert W. Clutter, graduate in agronomy in 1933, was recently announced the winner of the W. G. Skelly agricultural achievement award. The award includes a \$100 savings bond, a scroll, and a lapel button. Clutter served as county agent in Finney County, then resigned six years ago to put his farming theories into practice. Living eight miles from Garden City, he handles 13,980 acres in his farming operations.

While in college Clutter was an assistant editor of the *Ag Student*.



This trio of sheiks is enjoying luncheon on the desert in Saudi-Arabia. Contents of the bottle is undisclosed. The Arab on the left is H. E. Myers.





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# K-State Judging Teams Back to the Contests

## Meats Team

By PHILIP W. GEORGE

High individual honors were achieved by Robert Hendricksen of Kansas State College in the intercollegiate meats contest at the International Livestock Exposition in Chicago. The three-man team representing the College placed fourth in the contest which was held Tuesday, December 3.

Competition among the 12 competing colleges was close, with 12 points separating Kansas State from the high team, Oklahoma A. & M. Runners-up were Iowa State and North Carolina State in a tie for second. The Oklahoma school also was high at the American Royal, which was the other major fall meats contest. The team from Kansas State had ranked second in the Kansas City event.

Hendricksen made 831 points out of a possible 900 in the contest which involved judging meat carcasses and cuts, and grading beef carcasses. The team score was 2398, with 2700 points possible.

Accompanied by their coach, D. L. Mackintosh, associate professor in animal husbandry, the team did practice work at the Swift packing plant in Chicago the day before the contest.

Representing Kansas State College at the International event were Hendricksen, Floyd Frisbie, and Douglas George, with Jack Wise as alternate.

## Dairy Judging Team

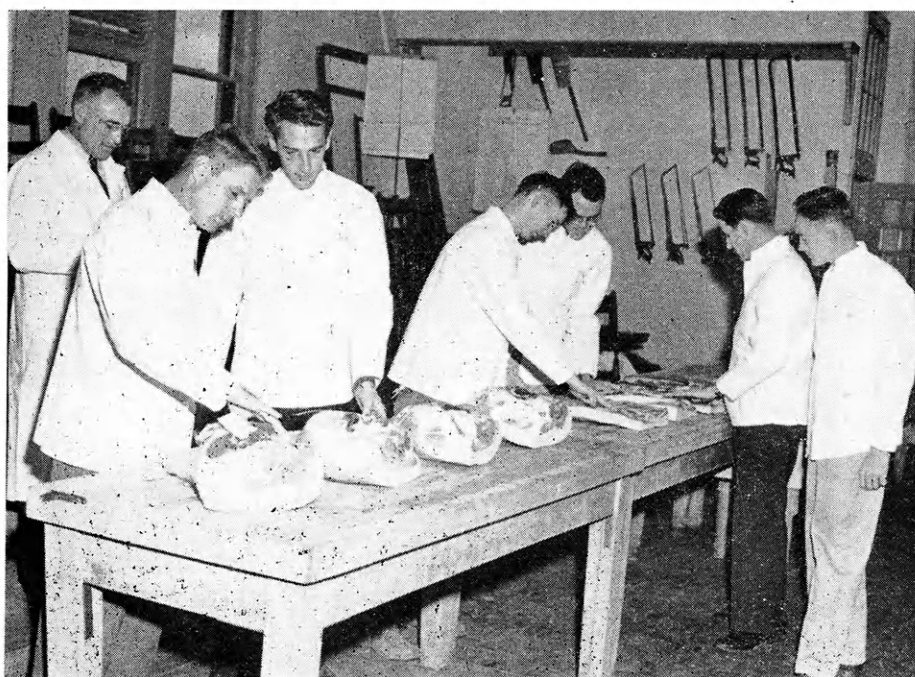
By ROBERT J. FLIPSE

Dick Warren, Ivan Strickler, Tom Bentley, and Bob Flipse made up the dairy cattle judging team coached by Prof. G. H. Beck which entered the 1946 Dairy Cattle Congress Judging Contest September 30 at Waterloo, Iowa. The team placed seventh in the meet, in which Iowa State College nosed out Ontario Agricultural College for first place.

Dick Warren tied for sixth high individual, placing second in Ayrshires, third in Jerseys, and fourth in Guernseys.

This year's contest was the first to

(Continued on next page)



The meat problem had a new significance as these men worked out in preparation for the intercollegiate meats judging contests.

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be held since 1942, when Kansas State placed third.

After working out at both the Topeka and Hutchinson fairs, the team visited the Oklahoma A. and M. dairy herd at Stillwater, and the Meadow Lodge and Gaylord farms near Oklahoma City. A short workout with the dairy herd at the University of Nebraska on the way to Waterloo completed the brief but rather intensive period of training for the team.

## Livestock Judging Team

By DON PRICE

The Kansas State College livestock judging team placed eighth among 22 teams in the collegiate judging contest at the International livestock show November 30 in Chicago. Kansas State tied with Kentucky. Ohio State placed first, and Iowa State and Nebraska tied for second. Texas Tech was fourth, Purdue fifth, Missouri sixth, and Minnesota seventh.

Jim Nielson gained recognition for Kansas State by being high individual in the Swine judging division. Joe Chilen was fifth high individual in horse judging.

The team had previously placed fourth at the American Royal, with Jim Nielson ranking first in horse judging and fourth in the entire contest.

The men of the judging team left Manhattan Monday before the contest. First stopping at Lincoln, they worked out on the different classes Nebraska University had to offer. Most of the Thanksgiving holidays

were spent practicing for the contest. The team left Lincoln Wednesday night and arrived in Chicago Thanksgiving day. A good part of the day was spent giving reasons to Professor Bell, the coach.

Friday, the day before the contest, was a day of rest for the team, and some of the men took this opportunity to see old service buddies and friends living in Chicago.

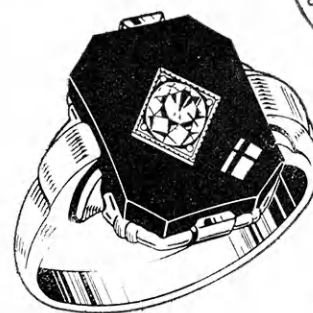
The remaining days after the contest were spent in viewing the show at the International. Some watched the steer judging, and others the horse, sheep, and swine contests. The team included James Nielson, Phil George, Frank Wilson, Bob Randle, Joe Chilen, and Don Price.

## Poultry Judging Team

By CARROLL MOGGE

Dick Eaton, Kenneth McGinness, Claude Moore, and Carroll Mogge won second place for Kansas State in the intercollegiate poultry judging contest held at Purdue University on December 13 and 14. Eaton was third high individual in the entire contest as McGinness ranked fourth and Moore ninth. In the market poultry division, the team ranked first with Moore high individual, Eaton fourth, and McGinness fifth.

The team members with their coach, Prof. Tom Avery, left Manhattan December 10. They stopped at the University of Missouri and the University of Illinois to work out on exhibition poultry and arrived at Purdue University on December 13.



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Beef on the hoof looks as good as on the platter to these men in Professor Bell's livestock judging class.

# Manhattan Is New Home Of Farm Machine Industry

By EMERY CASTLE

"The interdependence of agriculture and industry is a fact we must all recognize and understand if we are to be successful in establishing the basis for permanent prosperity," states Secretary of Agriculture Clinton P. Anderson. Such a relationship was established by the location of the Viking Manufacturing Company at Manhattan, Kansas.

This establishment of an industry in Kansas was brought about by such men as the directors of the Viking Company; William Long, head of the Kansas Industrial Development Commission; and C. C. Kilker, secretary-manager of the Manhattan Chamber of Commerce. These men, together with other enterprising citizens of Manhattan and of Kansas, made the moving of the Viking Company to Kansas possible.

In 1944 John Erickson, president of the company, knew his organization at Jackson, Michigan, must move. The building the company occupied had been sold, and a change was necessary. After a conference with other company personnel, Mr. Erickson decided a site south or west would be desirable. Jackson was a congested city, and Mr. Erickson felt the industrial climate for his particular company would be more healthful in Minnesota, Illinois, Iowa, or perhaps Missouri.

About this time William Long in Topeka, Kansas, heard about the Viking Company in Michigan that was to be moved. Immediately he was on his way to Jackson to talk "Kansas" with the Viking people.

At first they were not interested. Letters had been arriving from towns throughout the Middle West which were desirous of adding to their industrial population. Mr. Long reasoned with the Viking people, however, and convinced them they should come to Kansas for a look before turning "thumbs down" on his state. After a visit to Kansas Mr. Erickson agreed to reconsider.

Fifty-six chambers of commerce in various middle western cities made approaches to the Viking people. Of these, six were selected as being the most promising, and negotiations were started. When C. C. Kilker of Manhattan heard about the possibility of Viking's coming to Kansas, he immediately went to work.

Each of the six selected cities had agreed to construct a building according to Viking's specifications. Manhattan, however, offered them a unique and attractive plan. The people at Manhattan agreed to construct a suitable building which at the end of ten years would become Viking property. This would be accomplished either by purchase at that time or by the pay-

ment of rent which would be based upon the gross sales of the company during that period.

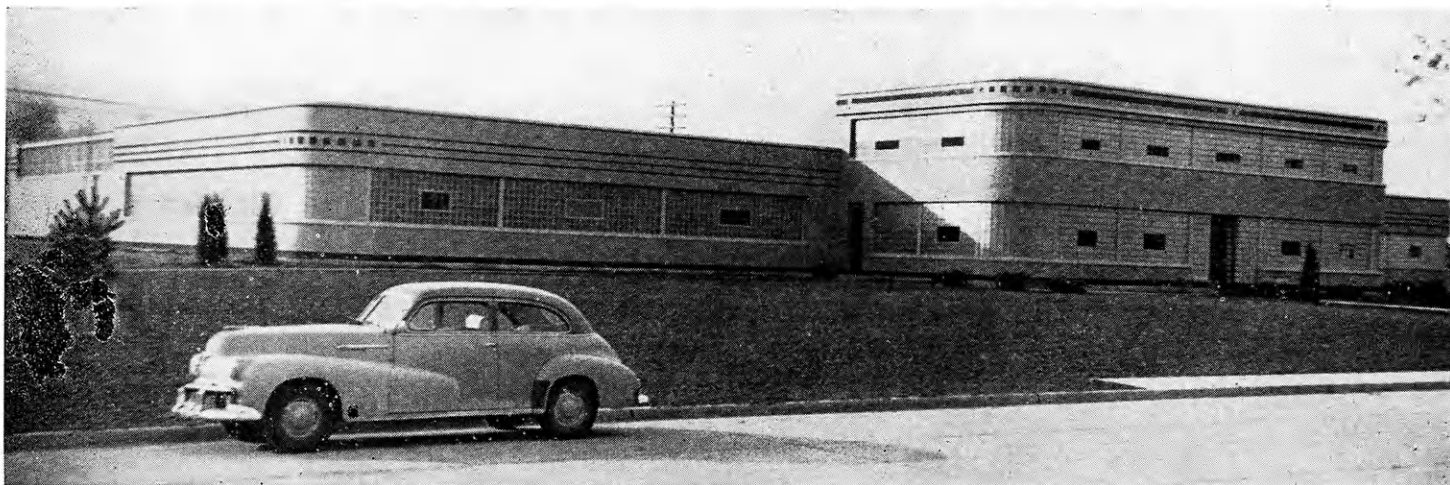
When the Viking people were informed of the Manhattan plan, they decided in favor of it. John Erickson said their decision was due not only to the building plan but also to the desirability of the town as a whole. There would be the possibility of part time college help. The quality of labor would be good. Furthermore, Manhattan was centrally located in their marketing area.

The president of the company, John Erickson, was graduated with a degree in Liberal Arts from Yankton College at Yankton, South Dakota. He worked as a civil engineer for a steel corporation for a considerable time. Mr. Erickson studied engineering after he left college, and has maintained a strong interest in the field since that time.

During the depression in 1931 he founded the Viking Manufacturing Company. At first they made coal mining equipment, but in 1937 they broke into the farm machinery field with their first feed grinders. They manufactured war materials during the war, and only recently have they returned to farm machinery.

"Please don't believe this is a one man company," said John Erickson in an interview. "Such is not the case. I am very ably assisted by Robert J. Buzenberg and by Carl Erickson, my brother." Robert Buzenberg is vice-president of the company and an engineering graduate of Michigan State College. Carl Erickson is a graduate of the University of Minnesota with

(Continued on page 18)



This modern structure was built at 1635 Yuma to house the Viking Manufacturing Company. Manhattan Chamber of Commerce and the Kansas Industrial Development Commission cooperated in bringing Viking to Manhattan.



# Ex-GI's Tell Observations Of Foreign Agriculture

## *Wheat in Austria*

JOHN MASSEY

Whether in the mountains near Salzburg or the rolling hills around Linz, in Austria one will find fields of wheat, barley, rye, alfalfa and potatoes farmed beautifully without a weed to be seen. The level fields between the Danube (Donau) and Enns Rivers appear much like those that are seen in Kansas.

One will find much wheat in Land Upper Austria. Most of the farm work is done by man power. A Fordson or Steyr tractor with a two-bottom plow attached may be seen occasionally. More frequently it will be a team of horses or oxen plodding slowly up and down the field with a young boy or a woman keeping them under control. After the ground has been worked with the equipment which that particular farmer uses, the planting begins. Seeding isn't done by a drill but by broadcasting. It's not unusual to see one man and several women carrying buckets over their arms, methodically scattering the wheat over the ground. The seed is covered by harrowing the field.

Fertilizer is added to the soil during the growing season. Instead of commercial fertilizers and barnyard manure, the Austrian farmer depends largely on human urine and feces to increase the fertility of his land. The waste is pumped from a cesspool into large tanks mounted on wagons. A sprinkler on the tank insures that the fertilizer is distributed well as the wagon is pulled over the field.

No stock graze the wheat in the winter except the numerous deer that venture from the thick pine woods that surround nearly every field.

After the winter, much like that of Kansas, is over, the spring brings many short showers. The sun grows hot and the weather becomes sultry. In late June the Austrian farmer sharpens his scythe. He takes one himself and gives one to each of the women of the household. They move around the field, each person taking his swath and dropping it in a wind-

row. Each follows the other by a uniform distance, echeloned in staircase fashion.

After a field has been cut, wagons are loaded from the windrows and taken into the barn. More fortunate farmers thresh the "golden grain" in a small wooden version of the American threshing machine. The majority of the grain is threshed with the flail. In some instances farmers walk animals around on the wheat to thresh the grain. To avoid any loss, the children go through the fields picking up each head that can be found and bringing it in to where the threshing is taking place.

Straw is used for bedding the livestock that the farmer has on hand. The grain is ground in small grinders on the farm, or taken to a farmer who has established himself as miller and baker of the community. He mills the wheat, bakes the brown bread, and on designated days delivers it to town. Other farmers usually time their trips to town to be there when the baker arrives in order to get their quota of fresh bread. When the baker has sold all that he can out of his wagon, he takes the remainder into a store. The store keeper has no trouble selling the rest as long as ration tickets hold out.

The farmer, miller, and baker pooling their efforts with nature give to the multitudes the staff of life—bread.

## *Farming in Luzon*

By ROBERT J. FLIPSE

Nestled at the base of towering Mount Makilum at Laguna, Central Luzon, the Philippine Agricultural College is a welcome sight after miles of nipa huts and steaming jungle.

Bud Frisbie and Bob Flipse, seniors in animal husbandry and dairy husbandry respectively, caught their breath when thick-growing banana trees suddenly opened up and revealed a campus quite similar in size and pattern to that of Kansas State College.

Under the guidance of Rufino Isidoro, agent of the Philippine Agricul-

tural Extension Service, Bud and Bob got a comprehensive view of agricultural education in the Philippines. Isidoro's first stop was the dean's office, where the boys were introduced to Dean L. B. Uichano. Jovial Dean Uichano chatted with his former entomology student and inquired of agricultural practices in America. When Isidoro reported that the dean had been under sentence of death at the time of liberation by the Americans, Uichano smiled and replied, "Now the Japs are getting a taste of their own medicine."

Dean Uichano provided as guide for a tour of the campus Dr. F. M. Fronda, his professor of poultry husbandry. Dr. Fronda, a graduate of Cornell, during his stay in America had known Professor Payne. Fronda pointed out various buildings—agricultural engineering, agricultural botany, plant pathology, animal husbandry, and the dormitories. Others, now charred heaps of ruin, were burned by the Japs. Greatest loss was the library, which contained almost all of the school's books and research papers. "Our greatest problem in carrying on," said Dr. Fronda, "is in finding enough books to teach our classes." Dr. Fronda displayed one of the few surviving copies of the book on poultry which he wrote and uses in his classes.

"Our present enrollment is 120, compared to the prewar figure of 500," concluded Dr. Fronda, as he returned the visitors to Mr. Isidoro.

Isidoro next took Bud and Bob to Alaband Stock Farm, the Philippine Bureau of Animal Industry's experiment farm. It covered 300 acres, and its modern buildings were undisturbed by the turmoil of war. The mark of Japanese occupation remained, however, in that nearly all animals were removed for food.

"Once we had 300 hogs," related the superintendent; "now we have these three sows and their litters." Poland China and Berkshire were the chief breeds; the most popular feed was rice bran with copra meal, the residue after extraction of coconut oil, as protein supplement.

Modern beef and dairy barns, complete with concrete floors and steel stanchions, attracted the attention of the visitors, but not an animal was in sight. "Imported cattle produce fairly well here, but fail to reproduce

(Continued on page 19)

# "Throck" Likes His Job As Dean of Ag School



Dean R. I. Throckmorton

By DOROTHY M. COCHRAN

For over 30 years the printed statement "Cooperation means so to conduct yourself that others can work with you" has held a prominent place on the desk of Dean R. I. Throckmorton, newly appointed dean of the School of Agriculture. He joined the Kansas State College staff in 1911 as an assistant in soil survey. Seven years later, he became professor of soils, and in 1925 took over as head of the Department of Agronomy.

Dean Throckmorton was raised on a Pennsylvania farm and graduated from Pennsylvania State College in 1911. Upon graduation he was hired as assistant in soil survey through the friendly relations between H. J. Waters, then president of K. S. C., W. M. Jardine, then head of the agronomy department, and the officials at Penn State.

When asked his first impression of Kansas, Dean Throckmorton smiled as he said the first thing that came to his mind that summer afternoon was that this was the hottest place he had ever been. He continued by saying, however, that he prefers the Kansas climate now and enjoys working here.

The associates of this outstanding agronomist characterize "Throck" as being "keen, quick, and sound in his judgments". He is well-known in Kansas and surrounding states for his

many experiments, discoveries, and programs in agronomic fields. Some of his outstanding achievements are developing adapted crops, bettering the methods of cultivation and conservation of soil fertility and improving crop rotations—not excluding his teaching and writing. He has been a regular contributor to the *Country Gentleman Magazine* for the past 20 years, and last year was appointed consulting editor.

Taking all of these activities into consideration, Mr. Throckmorton said he believed his greatest contribution to agriculture has been through his teaching. He explained that more information was distributed in this manner and brought many new men and women in agronomic fields. Among his many positions he particularly liked serving as head of the Department of Agronomy. Working outdoors, being with people, and teaching—all which he enjoys—were combined in this one position. Dean Throckmorton's accomplishments of the past have not only benefited those associated with K. S. C., but the entire south and central great plains area.

## *Girls, Too, Study Ag At Kansas State*

By RAY WARD

Ten of Kansas State's 1500 coeds are striving to prove to the mighty men of agriculture that not all women should be classified as the weaker sex. These ten women are enrolled in various curriculums in the School of Agriculture.

When asked why they chose agriculture in preference to a more feminine line of work, some replied, "Well, after all, there are men in the School of Home Economics" and "It's a fact that there won't be enough fellows to go around."

The Department of Horticulture leads the list with six women. The reason for this may be, as one of the coeds said, "I'm taking floriculture and ornamental horticulture because I

have always liked flowers and men, so this is the closest I could get."

The new agricultural journalism curriculum takes second honors, with two enrolled. Poultry husbandry and animal husbandry each have one.

In landscape design is Lorene Smith, a senior from Topeka; Margaret Ricklefs, sophomore from Salina; and Eileen Ralston, sophomore from Lincoln. Floriculture and ornamental horticulture has a junior, Carol Hess from El Dorado; a sophomore, Lela Warner from Arlington; and Miriam Adams, a special student from Altamont.

Agricultural journalism has two sophomores, Anne Threlkeld from Topeka, and Dorothy Cochran of Kansas City. Lois Schrimshaw, a sophomore from Larned, is in poultry husbandry and Barbara Collins, a freshman from Manhattan, in animal husbandry.

The future plans of these women vary from landscape architecture to raising livestock. Dorothy Cochran and Anne Threlkeld of agricultural journalism plan to write for farm magazines. Lorene Smith, the only senior, is going to California to work with her brother, a landscape architect.

Two of the farmerettes, Miriam Adams and Lois Schrimshaw, have chosen agriculture to be with their husbands in future work. Mr. and Mrs. Schrimshaw have plans for a poultry farm. The wives seem to think that two heads are better than one.

## *Hort Show Prize Goes to Mrs. Foltz*

By HAROLD L. COX

Mrs. V. D. Foltz won the giant mum offered as a prize at the Hort Show. The contest was to guess the number of petals in a mum. By actual count the mum contained 460 petals. Mrs. Foltz guessed 462.

The highlights of the show were displays of ornamental shrubs, a miniature rock garden, and apples from Kansas and West Virginia.

Prof. R. W. Campbell explained that attendance was lower this year than in the past due to Homecoming, but the show was considered a success, with over 800 people observing the exhibits.

Money spent for fertilizer can be deducted on income tax returns.



# Packer's Progress

*Some Food For Thought About  
America's Favorite Food For Eating*

By RICHARD BURNS

Ranking above diplomats and generals on page one of America's newspapers this fall was meat, number one question in the minds of the American people.

The number one item in America's diet was especially scarce and the results were clearly seen on the nation's dining tables. But even more indicative of the lack of meat were the closed or almost stilled plants of the nation's two and one-half billion dollar meat-packing industry. It was the result of a series of developments following establishment of civilian rationing in 1943 to offset the drain on the supply of meat for lend-lease and armies overseas.

Even weeks after meat rationing regulations had been removed and cattle were again flowing to market, empty shipping rooms and smoke houses were silent evidence.

The final effect of the curtailed civilian supply of meat, resulting in curtailment of the supply of by-products, was yet to show up, and in some unexpected places. For example, *Barron's National Business and Financial Weekly* for October 21 states that a reduction of soap production, due to a shortage of tallow, threatens to curtail the output of GR-S rubber. Soap is used in the polymerization of two of the chemical ingredients in this rubber.

In turn, glycerine, a by-product of soap manufacture, if scarce would reduce the supply of lacquers for refrigerator and automobile finishes. More evident is the scarcity of shoes. It will be from 100 to 200 days before hides from animals being slaughtered currently are ready for the final manufacturing process in shoe production.

Thus we begin to realize the enormity and far reaching influence of America's third largest peacetime industry.

The "packing industry" which originated in the United States when pork was "packed" in barrels in the New England colonies for export to the West Indies, has grown until today it reaches nearly every door in the land.

When the industry had its begin-

ning, it consisted mostly of the farmer packing away some of his livestock each winter in brine filled barrels. What surplus there was found its way to the West Indies.

As England's exports to the West Indies were cut off by war in the 1640's however, our trade with the Indies increased. Increased demand brought more people and more livestock. The industry was gaining some importance. Livestock raisers needed more land for grazing as their herds increased and so the move was westward.

But as livestock moved westward,



Mike Burns, junior in animal husbandry who won the Swift Essay Contest and thereby a trip to Chicago, began writing when he was 11. That is, he began writing for publication at that time—and did the publishing, too. His first paper was the product of a typewriter and carbon paper. It was all about news of his family, with copies for the relatives. Others heard about the paper, and friends subscribed at the rate of 50 cents a year.

Probably some were skeptical of the enterprise, but Mike kept the paper coming and soon blossomed out with a mimeographed sheet. His secondhand mimeograph machine was later replaced by a new one, and he gradually acquired other equipment that took him through four years of publication.

He ceased publishing when he entered Topeka High School, where he found journalistic activities to keep him busy. In his junior year he was editor of the high school paper, and served as business manager after being editor. He was circulation manager of the annual for two years. He graduated in 1944.

Though not enrolled in the curriculum in agriculture, Mike certainly is headed in the same direction. He is majoring in animal husbandry and planning to do enough work in the journalism department for a certificate in industrial journalism.

The nickname "Mike", he says, was inherited from his grandfather, who once was dean of the Kansas Medical College in Topeka. The school was part of what was then Washburn College, but later merged with the University of Kansas Medical School.

packing plants were left farther and farther behind. Long distance cattle drives were not proving profitable and so the packer moved westward too. Thus, packing centers such as Cincinnati developed. Livestock was taken to packing centers where it was slaughtered, most of it packed in brine, and marketed to the surrounding area. This was the birth of the domestic marketing branch of the industry.

Growth followed rapidly, packing plants springing up along river routes. The waterways provided cheap transportation for packer products and disposal facilities for waste products—an important item in the early days of packing when much of the animal was discarded as valueless.

With the expansion of railroads across the continent, great ranches sprang up farther west. Great cattle drives from the range to the new railroad shipping points marked one stage in packing history, but steel rails soon reached to the ranges themselves and brought cattle to a steadily westward moving market. Buffalo, Cincinnati, Chicago and finally other mid-western cities became leading packing centers.

Until the development of mechanical refrigeration, however, meat-packing did not gain true prominence. The first United States refrigeration plant was installed in Chicago's packing houses in 1880. About that same time, refrigerated freight cars were also put into service. This meant a great revolution in the industry, but the success of refrigerated meats was slow in coming.

Railroads hesitated to assume the responsibility for handling the more or less experimental refrigerated cars. Local butchers disliked the challenge of competition offered by this new means of marketing, and the public gained the belief that "chilled beef was unhealthy and unpalatable." Government regulation and inspection of sanitary conditions in all phases of meat processing gradually increased public confidence in this new offering of the industry until it has reached the prominent position it holds in the present day.

The packing industry of today is operated on a close profit margin under rigid business and sanitary regulation, and is a model of efficiency. It consists of four major divisions: 1.

(Continued on page 20)

# Frisbie Wins Gold Watch In Morrell Meat Contest

By PHILIP W. GEORGE

Proudly possessing a 21-jewel gold Elgin wristwatch is Floyd Frisbie, McDonald, senior in the School of Agriculture. He received it in recognition of winning the meats judging contest sponsored by John Morrell and Company at their Topeka packing plant Tuesday, November 12.

Amidst the atmosphere of juicy steaks with all the trimmings, the award was made at a banquet in the Rose Room of the Hotel Jayhawk in Topeka. Russell G. Plager, agriculture service manager from Morrell's head plant at Ottumwa, Iowa, had charge of the presentation. Runners-up in the contest were Frank Wilson, Maple Hill; and Douglas George, Lebo.

Participating in the contest with the winners were other members of the advanced meats class from the College. They were under the direction of D. L. Mackintosh, associate professor in the animal husbandry department and coach of the College meats team. In addition to the winner's prize, Morrell's presented Professor Mackintosh with \$100 which was used to help defray the team's ex-

penses to the International Livestock Exposition at Chicago.

The event was the result of a desire by R. M. Owthwaite, manager of the Topeka plant, and other Morrell officials to provide facilities for the group from the College to prepare for the final inter-collegiate meats contest of the year. Thus, the occasion served as a partial basis for selecting the team that represented Kansas State at Chicago early in December at the International show.

The official judge of the contest, which involved grading and judging beef, pork and lamb carcasses and wholesale cuts, was L. P. Stream, regional government grader. Representing the Morrell firm in conducting the event were Mr. Plager and Gay Tuis, agriculture service director at the Topeka branch and a graduate of the College. Accompanying the contestants and their coach and assisting with the contest were Charles Adams, instructor in animal husbandry, and William McCormick and Ed Smith, graduate students.

Climaxing the day's activities, the banquet that evening served to intensify the association between meats students and instructors and those within the meat packing industry. Dining

together were the group from the College and Morrell officials and employees, including those from the livestock purchasing, packing plant production and meat sales branches. To add to the promotional phase of the occasion, representatives of the agricultural section of the Topeka Chamber of Commerce joined in the banquet festivities.

This was the first such contest at Morrell's Topeka plant. The hope was expressed that it might become an annual event. Thus, the winner's prize may serve as an added incentive for agricultural students at the College to enroll in advanced meats in ensuing years.

## *Friendly Cow All Black and White Is Judging Students' Prime Delight*

By HAROLD A. RAY

As a producer of milk for school use and a guinea pig for judging students who each semester try her disposition, a college dairy cow leads a harried existence. One might wonder then if there is time for any records to be made.

"Fourteen all-time state milk production records from a total of forty-two possible classes are held by the College Herd," says Prof. G. H. Beck of the dairy husbandry department.

These records were based on official testing standards which included two, three and four milkings daily in 10 and 12 month periods.

Ormsby DeKol Courtesy, a Holstein cow in the herd, holds more state records than any other cow in the state. She holds the Junior 2-year-old record with three times a day milking over a 10-month period and the Senior 4-year-old with twice a day milking over a 10-month period; also in the Aged Cow class, the twice a day milk record for a 10-month period is hers.

She is classified as Excellent and has just finished a 3 times a day milking period of 10-month duration with 768 pounds of butter fat.

A young daughter in the college herd has already produced 604 pounds of butter fat on 3 times a day milking this past 10 months, which will be a new state record.



R. G. Plager of Morrell and Company presents Floyd Frisbie a gold watch for winning the company's meat judging contest, while Prof. D. L. Mackintosh smiles approvingly.



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**CHAMPION GROUND GRIP**  
**OUTCLEANS-OUTPULLS-OUTLASTS**  
**Any Other Tractor Tire**



IN HUNDREDS of field tests, the new Firestone Champion Ground Grip has proved that it cleans up to 100% better, pulls up to 62% more, lasts up to 91% longer and gives a smoother ride than any other tractor tire. No broken center tire can duplicate this performance because the Ground Grip tread is patented.

The Champion's curved bars flare outward from the center to give a wider exit for mud and trash. It has no slots or broken bar stubs around which dirt and trash can pack. Its pyramid-type bars cut deeply into the soil with wedge-like action. Connected bars take a powerful "Center Bite" right in the heart of the traction zone.

The extra high bars on the Champion are Triple-Braced so they don't bend or break. They can't push through the cord body and make the tire unfit for retreading. The Champion's wider area of contact with the ground, and the continuous curved bars on which the load is carried, give better roadability.

Specify Firestone Champion Ground Grips when you order tires or a new tractor. They cost no more.

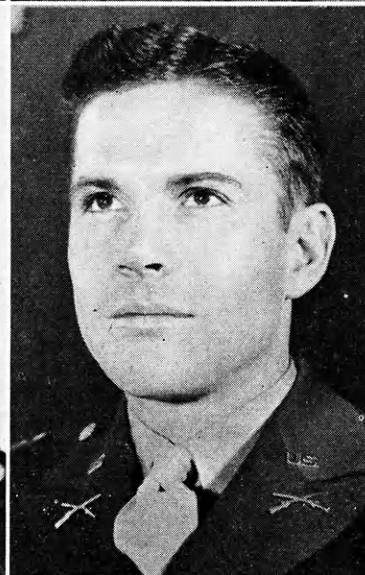
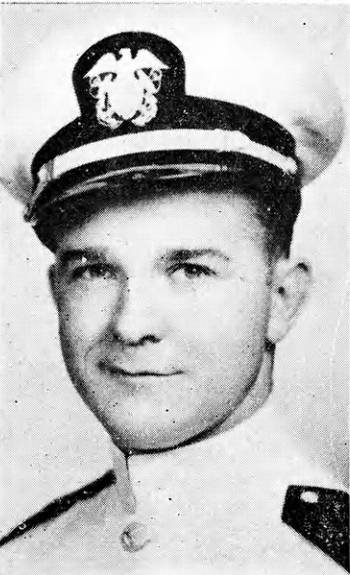
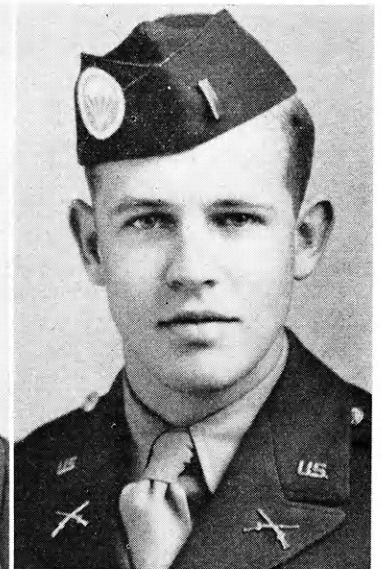
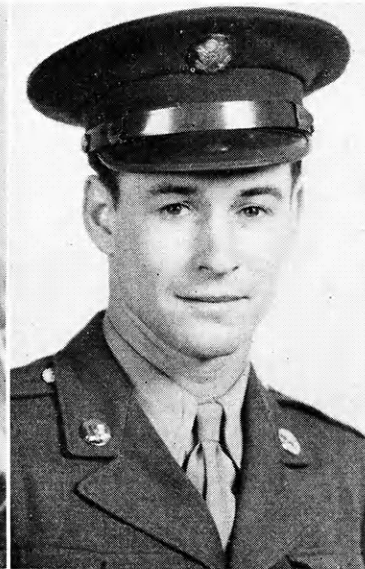
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Since Firestone Put the Farm On Rubber**



# IN MEMORIAM



LELAND L. GROFF '41  
*Parsons, Kansas*  
U. S. Army  
Killed in Training Aug. 8, 1943  
England

GORDON C. GREEN '40  
*Whiting, Kansas*  
USAAF  
Killed in Plane Crash Aug. 1944  
United States

WILLIAM D. HADLEY, F. S. '44  
*Alton, Kansas*  
U. S. Army  
Killed in Action Nov. 22, 1944  
Germany

ERNEST O. HARRIS '42  
*Manhattan, Kansas*  
U. S. Army  
Killed in Action June 11, 1944  
France

WILLIAM A. HEMPHILL '38  
*Chanute, Kansas*  
U. S. Navy  
Killed in Action June 29, 1945  
Pacific

ROBERT M. HODGSON, F. S. '43  
*Little River, Kansas*  
U. S. Army  
Killed in Action June 7, 1944  
France

RICHARD E. HOTCHKISS, '39  
*Manhattan, Kansas*  
U. S. Paratroopers  
Killed in Action June 6, 1944  
France

DONALD M. HUNT, F. S. '43  
*Manhattan, Kansas*  
USAAF  
Killed in Accident, Aug. 4, 1944  
New Guinea



This is the second of the series of pictures honoring graduates and former students who gave their lives in World War II.



GEORGE N. INSKEEP, '43  
Manhattan, Kansas  
U. S. Army  
Killed in Action Oct. 1944  
France

DONALD F. IRWIN, '43  
Fairview, Kansas  
U. S. Army  
Killed in Action Sept. 1944  
France

RICHARD A. JACCARD, F. S. '40  
Manhattan, Kansas  
USNAC  
Killed in Action Oct. 1942  
Pacific

DALE E. JOHNSON, '40  
Manhattan, Kansas  
U. S. Army  
Killed in Action Nov. 15, 1944  
Leyte

EUGENE F. KIMPLE, F. S. '44  
Lyons, Kansas  
U. S. Army  
Killed in Action 1944  
Europe

LESLIE W. KING, '35  
Wichita, Kansas  
U. S. Army  
Killed on Jap Prisoner Ship,  
Dec. 15, 1944. Philippine Islands

ROY T. KINKAID, F. S. '45  
Medicine Lodge, Kansas  
USAAF  
Killed in Action June 22, 1945  
Pacific

THEUNIS M. KLEINENBERG, '26  
Pietersburg, South Africa  
RAF  
Killed in Action Jan. 25, 1941  
Africa



Farm Machinery Hall as it appears today.

## First Campus Building Now in Bad Repair

By J. W. CHAMBERS

The "old grey mare" would shed tears of sorrow if she knew her old home is condemned. Farm Machinery Hall, just south of the west wing of Waters Hall, stands alone, a reminder of the past and the beginning of a new era in the history of K. S. C. The season's chilled winds have bared the vines covering the weathered native stone—yet it still stands with the dignity of age upon it.

Originally, Kansas State College was about two miles west of its present site and consisted of a single building donated to the school by the Blue-mont College Association. Even then the housing situation was critical. To take care of the many students flocking in from the four corners of the state, a boarding house of 25-student capacity was constructed. The unfortunate Manhattanites had to ride horseback or go by stage the two miles to school.

In 1872 the township of Manhattan voted a bond issue to purchase a farm nearer town, with the idea of college buildings being erected upon it. That same year saw the first building on the present campus. It was the west wing of a proposed barn, 46 x 96 feet, and was later to be known as Farm Machinery Hall. The building was used as a barn for three years, until it became evident that the cows were better off than the poor students.

President J. A. Anderson introduced legislation in 1875 for an appropriation to remodel the barn for class room use. The cows were ousted

and replaced by students of chemistry, mathematics, English, horticulture, agriculture, and sewing. The second floor contained the president's office, assembly room, and chemistry laboratories. With President Anderson as editor, the first publication of *The Industrialist* rolled off the press in April, 1875 and the following excerpt of the August 21 edition, entitled "Give Them a Chance", might well be reprinted today with no loss of intrinsic value. "Parents need not be afraid that a course at this College will unfit their children for the plow and workshop. They will not have the idea insidiously instilled into their minds that it is 'more honorable' to gain a livelihood by pettifoggery than by manual labor. On the contrary they will be made to realize that the industrial pursuits are the most independent, and most likely to lead to wealth.

"Then give the boys—and likewise the girls—a chance to obtain a practical education; and give it to them now."

In 1879 the north wing of Anderson Hall was completed and classes were transferred to it. The old barn saw new uses. In August of that year the Board of Regents voted to turn it into a dormitory for girls or for girls and boys of the same family. A year later E. M. Shelton, professor of agriculture, was permitted to move his family into part of the rooms.

Soon after, the lower floor echoed with the clatter of artillery gear. Once again the Army had established a beach head. The building was soon known as Armory Hall.

The Department of Natural History, including zoology and botany occupied the upper floor again in

1886. Two years later Prof. R. F. Burleigh organized a veterinary medicine department to teach agricultural students veterinary practices.

As each department grew, new buildings were added to the college. One by one the departments vacated the old building to take over the new. Last to leave was the military department. In 1911 it was moved to the ground floor of Nichols Gymnasium. Once again the old building was remodeled and was used for instruction in the use of farm machinery.

In 1934 the old barn was condemned as unsafe for use by the state architect, and to the present time has been used for miscellaneous storage. Various plans have been submitted for its use. None has developed. So it remains standing, slightly aloof and silent, as thousands of feet rush by. The old barn has served its purpose and waits patiently to be superseded by the new.

The Bureau of Dairy Industry of the U. S. D. A. reports that on January 1, 1946, there were 73,293 herds, consisting of 579,477 cows, enrolled in artificial-breeding associations.

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HIDES  
FURS  
SHEEP PELTS**

**Kansas Hide &  
Wool Co.**

2nd and Osage  
MANHATTAN, KANSAS



# Blight Threatens Kansas Oat Gains

By MELVIN THOMPSON

Victoria blight of oats is a new disease that was first observed and identified in Kansas in 1946 after having been identified two years earlier in Iowa. In 1944 the Iowa Agricultural Experiment Station reported finding the disease present on a seedling of Tama oats grown in the germinator. It is believed that the fungus causing this disease has occurred on certain grasses such as timothy, orchard grass, and green foxtail for a long time, but that the older varieties of oats were more resistant. Under these conditions the disease did not become noticeable until more susceptible varieties were introduced in recent years.

In 1927 a variety known as Victoria was introduced into the United States from South America, and in 1946 approximately 25,000,000 acres of new varieties were grown which had Victoria as one of their parents or grandparents. These new varieties were resistant to rust and smut, but all are susceptible to this new disease.

This blight may infect the oat plant from the time the seed germinates until it reaches maturity. Infected seedlings which survive are streaked frequently with an orange to brownish color, especially along the edges of the leaves. The plants are dwarfed, and most of the roots are brown or rotted off. Stems often break over near the ground line, and lodging in oat fields is very similar to lodging in wheat fields caused by Hessian fly.

The Kansas Agricultural Experi-

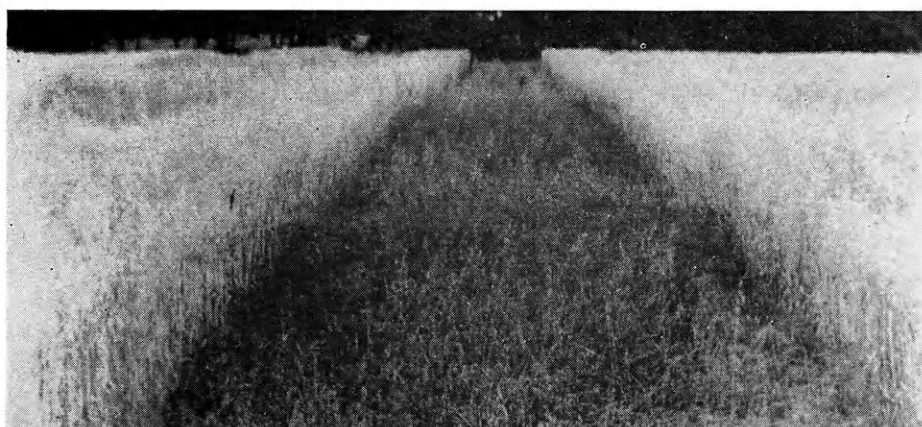
ment Station recommends Osage, Neosho, Fulton and Kanota for planting in 1947. Osage and Neosho are susceptible to Victoria blight but resistant to rust and smut. Fulton and Kanota are resistant to the blight but susceptible to rust, and Kanota is also susceptible to smut. In sections of the state where losses from rust have been frequent and severe during the last few years, Osage and Neosho would no doubt be the best varieties to plant in 1947 because losses from Victoria blight were of minor importance in 1946.

Care should be taken in the selection of seed for the 1947 crop, and only seed harvested in Kansas in 1946 should be used. All seed should be cleaned to remove blight-diseased kernels, chaff, and weed seeds. Treatment with New Improved Ceresan will partially control the disease and increase yields considerably.

This disease is capable of living in the soil. Consequently it is not advisable to seed oats on soil which produced an oat crop the year previous. The disease has not occurred in Kansas long enough to have infested all fields, so a crop rotation can be used with good results.

Observations have indicated that high temperatures favor the development and severity of Victoria blight. This can be overcome to a certain extent by seeding early, when the soil temperatures are relatively low.

The Kansas Agricultural Experiment Station and the United States Department of Agriculture are cooperating in breeding new varieties of oats for Kansas with combined high resistance to Victoria blight, rust, and smut. Studies are being made on the fungus in the laboratory and on the disease in the greenhouse.



A test plot of oats susceptible to Victoria blight is shown in sharp contrast to resistant varieties.



## K2234

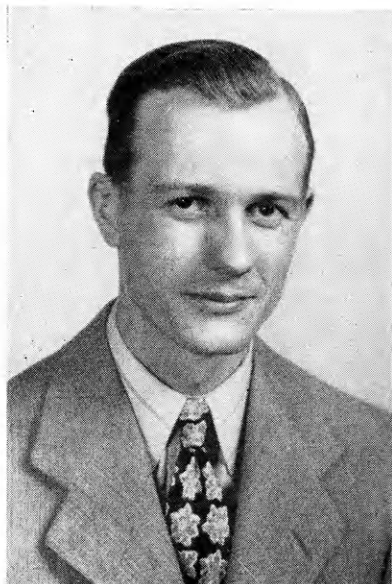
**THE ONLY WHITE CORN THAT WILL COMPETE  
IN YIELD WITH THE BETTER YELLOW HYBRIDS**

There is extra profit in White Corn. The market price has been running 40 to 50 cents above yellow corn because of industrial demand. White Corn goes into glucose, corn syrup, starch, and many other vital products.

**PLANT K2234 WHITE HYBRID**



## Jim's on the Ball



Jim Nielson, president of the Ag Association.

By FLOYD ROLF

Ability and willingness to put in some hard work to gain his goals are two assets which are pushing Jim Nielson toward realization of his ambitions in life.

Jim is now a senior and will graduate this February. Although still an undergraduate, he is a graduate assistant in the Department of Economics and Sociology and teaches a lab in farm organization. He plans to remain here to obtain his M. S., but after that he will be heading for professional farm management work.

He graduated from Marysville High School in 1939 and came to Kansas State that fall with a \$150 Sears scholarship. On the basis of his scholastic record while a freshman and sophomore, he was awarded the Sears \$100 junior scholarship and a trip to Chicago in 1941. His achievements, however, have not been confined to grades alone, for he has found time to take an active part in many extracurricular activities. He is now president of the Agricultural Association. His election to this office indicates that his fellow students highly regard his leadership abilities. He is also president of the Lutheran Student Association, is a member of Blue Key, and has been an officer in Alpha Zeta. He has been an active member of Block and Bridle, Agricultural Economics Club, and the Collegiate 4-H Club. He is a member of this year's senior

livestock judging team and was fourth-high individual of the livestock judging contest at the American Royal in October.

As many of the rest of us have done, Jim took time out from his studies to spend some time in the army. He enlisted in January, 1942, and was discharged in February of this year. At the time of his discharge he held the rank of captain in the Quartermaster Corps and was attached to the 5th Air Force in the Southwest Pacific.

## Viking Manufacturing Co.

(Continued from page 8)

a business administration major. He is secretary-treasurer of Viking.

At the present time Viking employs approximately 125 people, who operate the plant in three shifts. They are largely local people; many are farm reared. Ten key families were brought here from Jackson, Michigan, and formed the nucleus around which the remainder of the organization was built. A number of part time college students are also employed.

Viking produces electrically-operated chore machines. Besides those being produced at the present, there are others in the process of development. The company sells mainly to farmers who are served by rural electrification. These farmers are rapidly increasing in number in Kansas and elsewhere.

"Small industries will fit exceptionally well into the economic pattern of Kansas," said Milton S. Eisenhower, president of Kansas State College, as he opened the first annual Industrial Agricultural Week in 1945. Apparently the Viking people agree.

John Erickson states that the people of Manhattan and in Kansas as a whole are cooperative and understanding of the Viking position in the community. "This enables us to operate efficiently and in that way we can best serve the people as a whole," he maintains.

It has been suggested that the operation of the Viking Company at Manhattan will be an incentive for future marriages between cities of the midwest and industrialists who are contemplating such a union. Certainly it is a good example of industry and agriculture walking hand in hand toward a common goal.

## Quonset for Hybrids

WILBUR A. HOWELL

"What is that new quonset hut being built for?" the student sitting next to me asked. Just then the bell rang ending the period so I hurriedly left the economics class without answering the question. I didn't know, either, who was building the quonset hut that was nearing completion in the area between the trailer camp at Kansas State College and the College Dairy Barns.

As I had finished my classes for the morning and did not feel like studying, I decided to find out what the building was. I walked out to the building and asked a man who was cleaning up material, "What is this building for?"

He replied, "The Kansas Hybrid Association built it to process and store feed stocks. Would you like to go through the building?"

During my tour through the building I found that the Quonset, 40 by 100 feet, is made entirely of sheet metal with a cement floor. There is a basement 20 by 40 feet which will be used for storing reserve seed stocks. At the south end of the main floor is an insulated room 30 by 40 feet which is the processing room. There is a conveyor belt in this room for moving processed seed to the basement. The remainder of the building is to be used as a warehouse. Plans are now to make an ear-corn drier in this building next year.

A 1½ ton stake bed truck is used to haul the seed corn stock from the farms of the members to this building. When the seed arrives at the building it is dried, shelled, cleaned, graded, and then treated chemically to guard against insect damage while in storage and to prevent molding and rotting after planting.

It is the responsibility of the Kansas Hybrids Association to maintain foundation seed stocks for growers who wish to produce Kansas Hybrid seed corn.

The Kansas Hybrids Association is connected with the Kansas Agricultural Experiment Station in that it has a secretary-manager who is a member of the experiment station staff. The head of the agronomy department at the college must be a member of the board of directors.





## Club Picks Turkeys For Holiday Trade

By CARROLL MOGGE

Turkey roasted to a rich golden brown and filled with spicy dressing has caused overeating on Thanksgiving Day since the Pilgrims landed at Plymouth Rock. This year has proved no exception, and 200 Manhattan tables were adorned with turkeys dressed by the Poultry Science Club here at Kansas State College.

These turkeys were purchased by the Poultry Science Club from the poultry department flock which was started from 200 hatching eggs of standard bred bronze turkeys. In 1937 hatching eggs of the Broad Breasted types were purchased and this blood was introduced into the college flock on the male side. The department has been working continuously since that time to improve this type of bird.

Seven years ago these turkeys were offered for sale to local residents for Thanksgiving dinners. Every year since then the Department of Poultry Husbandry has continued to sell these birds for that purpose. They were dressed with the aid of students majoring in poultry husbandry. During the war the poultry staff, even though short handed, prepared the birds for those who wanted them.

This year the Poultry Science Club offered to shoulder the responsibility

of dressing and delivering the turkeys. The poultry department accepted the offer and the birds were purchased by the club at live weight. The profit made by dressing is to be used for financing the activities of the Poultry Club.

The project under the management of Claude Moore was initiated November 14 when the first group of 50 birds were killed and picked by volunteers from members of the Poultry Club. The next day more volunteers drew the birds and prepared them for the oven. They were then frozen and held till Thanksgiving deliveries were made. Killing and dressing these birds continued at intervals until 185 birds were ready for delivery.

These birds were delivered by members of the Poultry Club on Tuesday and Wednesday before Thanksgiving, and the project was brought to a very successful conclusion.

## Farming in Luzon

(Continued from page 9)

in this climate," the superintendent explained.

The third stop was at the Lipa Citrus Station, 4,000 feet above sea level at Lipa, Luzon. Contrary to popular belief, Philippine lowlands will not produce citrus fruits to any extent.

Oranges and lemons were displayed, but the islanders have adaptations of their own. The mandarin, similar to the orange, has a distinctive flavor. Frisbie and Flipse decided it tasted "part tangerine, part grape." Another fruit, the pommelo, is pear-shaped; after removal of the inch-thick peel, it is about the size of a grapefruit. Although resembling the grapefruit in flavor, it is coarser-textured, less juicy, and sweeter.

In cultivating citrus trees, the station uses aluminum sulfate in combination with a cover crop as fertilizer. Ipil-ipil, the most popular cover crop, is a legume which resembles lespedeza in the early stages but if allowed to develop grows into a shrub or small tree. It is normally cut when 18 inches high and piled about the bases of the trees.

"Ike" Kern '40 writes to Dean Throckmorton from Hawaii, where he is working in the plant selection and planting department of the Hawaiian Pineapple Company, that he is enjoying his work and also the climate of the islands. The climate is *almost* as ideal as he had been told it would be, he says.

Cost of hauling farm products over dirt roads is 1 to 3 cents a mile more than for all weather roads, road builders say.

### THE Kansas Poultry Improvement Association MANHATTAN, KANSAS

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U.S.D.A. Miscellaneous Publication No. 300  
Gives the Plan in Detail.



## Packer's Progress

(Continued from page 11)

slaughtering, dressing and processing of meat; 2. by-product manufacture; 3. storage; and 4. distribution and marketing.

Under normal conditions, livestock is brought in from the range and off farms to one of the 68 livestock markets licensed by the United States Department of Agriculture. Packer buyers select from these animals their company's supply. They must anticipate future demand for meat and buy accordingly, as fresh meat must be kept moving to retail markets.

The slaughtering process begins with an inspection by Federal meat inspectors. Then the animals are herded into pens leading to the "disassembly" line. Animals are hung head down by a giant wheel which hoists them to a rail which carries each carcass through the plant.

Each kind of livestock is handled in much the same way. Their throats are cut so that they will bleed properly and skilled butchers, each performing a single operation on each animal, quickly prepare the meat for cooling. Government and plant inspectors check each animal for disease and insure cleanliness and sanitation in handling all along the line. If any disease is detected, the animal is sent to the "tank" for preparation as fertilizer and feeds.

From the killing floors, the sides of beef, pork, and lamb are taken to the cooler. Beef is shrouded in water-soaked cheesecloth to draw out the blood from the surface fat and leave it a creamy white. It is cooled 36 to 48 hours at 33 degrees Fahrenheit. Pork is chilled 24 hours or longer.

Pork products may be cured in dry salt or "sweet pickle", a mixture of salt, sugar, and saltpeter in water. After curing, the hams and bacon are smoked over hardwood fires. Large quantities of meat are stored in frozen and cured forms during winter to be used during the light production of summer months.

Besides fresh and cured meat, an important branch of the industry deals with by-products. Of these, hides are most important, accounting for "8.6 percent of the total return from a steer compared with 4.1 percent returned from all other by-products, and 87.3 percent from the meat."

Pelts reach 14.5 percent of the total return from sheep.

Subsidiaries of packing plants process leather from which is made sole and upper leather, harness, saddlery, raw hide and belting. From hair is made upholstery, brushes, felting, and a plaster ingredient. From animal fats come candy, lubricants, leather dressing and textile finishing.

The head provides buttons and combs; the feet, bone articles, knife handles, ice cream and candy ingredients, gelatine and novelties. Other parts of the animal furnish materials for textile sizing, weatherproof glue, medicines, snuff containers, parchments, incense, charms, and perfumes for the orient.

Packing plants themselves finish glue, gelatine, tankage, fertilizer, glycerin, wool, hair, soaps, oleomargarine, lard, animal and poultry feeds, and sausage for the trade.

Thus only about 30 percent of the live weight of a beef animal is lost in the process of packing—real progress from the days of the early packer when practically everything but the edible cuts of meat were thrown out as sewage.

With the modern specialization and advancement of the industry, distribution has become a major item. For this the packer has an elaborate system of branch houses and refrigerated car routing to deliver fresh meat to retailers in every part of the country.

With the development of a reliable service for perishables, the modern packing industry has been enlarged to handle, in addition to meats, dairy products: butter, cheese and ice cream, and poultry products: meat and eggs. Packers realized that there was waste space in refrigerator cars under the hanging carcasses and since market requirements of dairy and poultry products are very similar, they seemed a natural for this spot. Also, by dealing in these goods, the packer realizes the economies of assembling the farmer's goods in one operation, preparing them for market on an economical large scale basis. Lower cost to consumer and improvement and standardization of quality are made possible.

Long distance shipment via modern refrigerator cars requires careful management to ascertain safe delivery. Each car is thoroughly cleaned inside with steam and hot water. Then the bunkers are filled with ice and salt to

chill the car before the meat is packed in it. The ice bunkers must be filled again before meat is loaded. Icing stations and inspection by yard clerks insures safe delivery.

Major shipments are made to Branch Houses and from there, salesmen take orders from retailers in their region. Refrigerated cars and trucks follow set routes in each region, filling the orders of retailers. In larger cities, retailers get their supplies direct from one of the Branch Houses in their community. Competition between Houses in the same city therefore is often keen.

Basically, distribution is a problem of getting an oversupply of packer products from the Agricultural mid-west to the industrialized east. Thus the need for such a system as is set up by the American meat packer is seen to be essential.

What of the future of this great industry?

Marketing by air, adopting newly developing methods—it's a mighty challenge to a mighty industry whose colorful career has seen and met many a challenge. (By permission of *Swift and Company*.)

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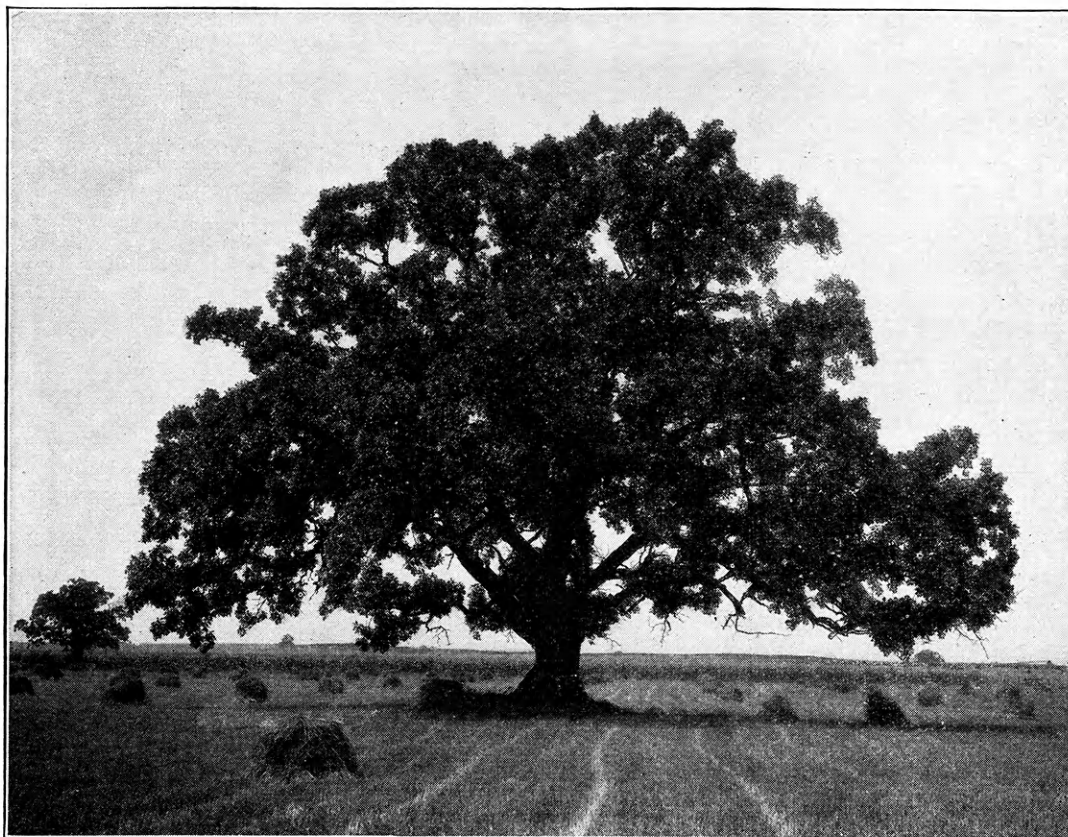
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**"AS THE TWIG IS BENT - - - -"**

**A**S applied to American farming, there's more than a fragment of truth in the old saying, "As the twig is bent, the tree inclines".

We in America, with traditions deep-rooted in our hearts, have chosen to be guided by those traditions rather than to be bound by them. We cling to the old as long as its value is proved, yet quickly cast aside the traditional way when a better method proves its basic worth. The swing to power farming, the ever broadening use of the combine, the increasing trend to conservation farming—each may be considered, each *was* considered in its time, a break with tradition. Yet as intrepid pioneers established and proved new methods—new, easier, faster, more convenient ways of doing the farming job—the American farmer has been quick to adapt them to his own use.

The great, sturdy tree of American agriculture is deep-rooted in the rich soil of our country, yet it is a living, changing, vital tree, adapting its development as the twig is bent.

**JOHN DEERE**  **MOLINE, ILLINOIS**

# C. C. Cunningham, '03 Grad, Is Tops In Agronomy

By PHILIP W. GEORGE

Mr. C. C. (Claude) Cunningham, a Butler County farmer and seed grower, is widely known for his certified seeds and for his grain judging ability. He was chosen the first Premier Seed Grower in Kansas. His services as a grain judge have been in demand since 1913, when he first judged the Kansas State Fair at Hutchinson. He judged grain at the International Hay and Grain Show at Chicago for six consecutive years.

Mr. Cunningham, born in 1883 on a farm in northern Riley County, attended the College Hill rural school, graduating in 1898. He received his B. S. degree in agriculture in 1903, and was a graduate student at Cornell University for the next two years. While at K-State he was active in football and baseball, winning two letters in each sport.

Pink kafir, a standard variety still widely grown in central and western Kansas, was developed in 1909 by Claude Cunningham, an agronomist at the Hays experiment station. During that time, he also started the development of Pride of Saline corn.

After being transferred to the Kansas State College agronomy department in 1911, he was in charge of the newly-formed cooperative experiments in which various crop and soil fertility investigations were conducted in cooperation with farmers in all parts of the state. He continued working with Pride of Saline corn and became interested in a yellow variety of corn which was known locally as Midland Yellow Dent. Mr. Cunningham personally directed the breeding and selection of this corn for nine years. Until displaced by hybrid corn recently, Midland Yellow Dent and Pride of Saline were the two best-adapted and most widely-grown varieties of corn in Kansas.

Mr. Cunningham's most important contribution to agronomic knowledge was a series of investigations that proved that the rough-dented deep-kerneled starchy type of corn considered best for seed and for "show corn" was not as productive as corn relative-

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ly smooth or dimple-dented with a high percent of hard starch. He has written many bulletins and circulars, the most popular being "Corn in Kansas," and "Sorghums in Kansas".

During his 26 years at Trinoka Farms near El Dorado, Claude Cunningham has been active in many public affairs. At the present time he is on the Board of Directors of the Kansas Crop Improvement Association and the Hybrid Seed Stocks Association, and is active in Farm Bureau and 4-H Club work. He has been a representative in the Kansas Legislature, a member of the State Board of Agriculture, and on the Board of Directors of the Crop Production Association and the National Farm Loan Association. He is now a member of the El Dorado Kiwanis Club. Last year Claude was presented the Skelly Award for outstanding achievement in agriculture.

Both Mr. and Mrs. Cunningham and their daughter Carol, a nurse in St. Louis, are Kansas State graduates. The two sons, Jim and Bruce, are now enrolled in the School of Agriculture at K-State. They, also, are majoring in agronomy.

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# Dr. Herrick Polishes Pretty Stones For Hobby

By DALE COWAN

Many students polish apples for the teacher. However E. H. Herrick, professor of zoology, is one teacher who enjoys polishing rare stones to enhance their natural beauty for students and friends.

It is with great interest and a gleam in his eye that Professor E. H. Herrick tells of the hobby that he started about five years ago. By cutting, grinding, and polishing stones he brings out the beauty of nature in the delicate colors and patterns, and then sets them in silver mountings to make rings, pins, and bracelets.

The rough stones range in variety from petrified woods from Arizona to jade from Burma, and cost from \$5 per pound to \$10 per piece for a rarer specimen. The more common stones are bought and sold on a market, but the greatest source of supply for the more choice stones is the trading that is carried on among the many enthusiasts scattered over the country. Professor Herrick said, "The number of people who are interested in this hobby has greatly increased in the past 10 years and the competition for the better stones is very intense." He also advised the beginner to start with the cheaper petrified woods.

The first step in working the stones is a process called "Slab-cutting". In this process, the rough stone is cut into pieces having two sides parallel and about one-half inch thick. The cutter used is a soft metal wheel, run in an oil bath and using diamond dust as an abrasive. Next the choice pattern in the slab is chosen and it is roughed out on a grinding wheel, then rough ground to shape. While the stone is being roughed out it is held in the hand, but after the roughing out has been completed, it is glued to a stick, called a "dop-stick". This dop-stick acts as a handle during the process of finishing the stone.

After being attached to the dop-stick, the stone is finished on very hard grinding wheels, progressively finer ones being used with each step in the finishing process. Each grinding wheel removes the marks left by the wheel preceding it. After the last

grinding operation, the stone is given a final polishing on a leather-covered buffing wheel and is then ready for mounting.

As to mountings, Professor Herrick favors rings, but the stones can be mounted in pins and bracelets as well. The silver for mountings is bought in the bulk and formed. "It is easier to fit the mounting to the stone, than to fit the stone to the mounting," Professor Herrick remarked.

The machinery that Professor Herrick uses in cutting and grinding the stones is relatively inexpensive because, excluding a few items that have to be purchased, he makes the machinery himself. He stated, "I don't suppose I have spent more than \$25 for my equipment."

When asked how he disposed of the finished stones, Professor Herrick remarked, "I don't sell them, I give them away as gifts. They make fine gifts because of the personal touch of making them oneself."

## K-State Their Choice

Jose C. Alejandro and Salazar R. Cuauhtimoe, graduate students in agronomy and milling industry respectively, were selected by the Rockefeller Foundation to receive fellowships for study in the United States. Both are graduates of Escuela Nacional de Agricultura, Chapingo, Mexico.

Offered their choice of institutions in the United States, Alejandro and Cuauhtimoe selected Kansas State College as the place best suited to give them the training they desire.

These students expect to spend approximately two years in the United States, and plan to travel some in this country to examine practical methods in their respective fields of study before returning to Mexico.

The Bank of Mexico is financing the fellowships.—R. J. F.

It takes from 10 to 15 percent more feed for pigs to reach market age if they are kept in old, worm-contaminated lots.

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# Experiment Station Pushes Ag Ec Research

By FRANCIS GWIN

I wonder if we, as students of agriculture, ever stop to think about and give praise to those who long before our time spent many hours, yes, many years in collecting the information upon which our education has been built. Without the efforts of these men and organizations, our insight into the problems of our major studies would be of much less value. By their contributions, we have learned the most practical way of raising a herd of purebred Jerseys, the most economic means of breeding a successful flock of Leghorns, and the best adapted crops to grow on our type of soil.

One of the youngest of these departments of the Kansas Agricultural Experiment Station is the research being carried on in the field of agricultural economics. No doubt the economic problems of agriculture were given some consideration by the experiment station from its beginning; however, formal research in this field was not undertaken until in 1915. Since that time, tremendous contributions have been made to the farmers of Kansas and farmers and students of agriculture the world over.

Work has been carried on in farm management in an effort to give the farmer access to the best possible information regarding organization and management of the farm. Results of these studies are taught today to the agricultural students of Kansas State and made available to farmers. In the field of marketing much work has been done. It is significant to note that the number of failures among grain elevators and the margins taken have been reduced materially since this study was begun by the experiment station. Studies have been made in the storage methods and facilities used in marketing grain, in the problems involved in marketing livestock, and similar problems of dairy, poultry, and fruit marketing. The recently passed Hope-Flannagan Bill makes possible future appropriation for further research in the field of marketing.

Closely associated with the work in marketing have been the studies of

price trends. The Kansas station was a pioneer in this field. Each month the results of these studies are published in "The Kansas Agricultural Situation" which is sent to approximately 10,000 farmers and businessmen. Taxation and its effect on farmers is another field which has been pioneered by the Kansas station. Since this study was undertaken by research and analysis, many significant changes have taken place in the Kansas taxation system.

These are only a few of the contributions made to us and others interested in the success of the agricultural business. Their problems and contributions have and will be many. We who have benefited by this work are grateful, and those men who have had a part in the development of this research surely can feel a sense of pride in the worthy goals attained by them in the past 31 years.

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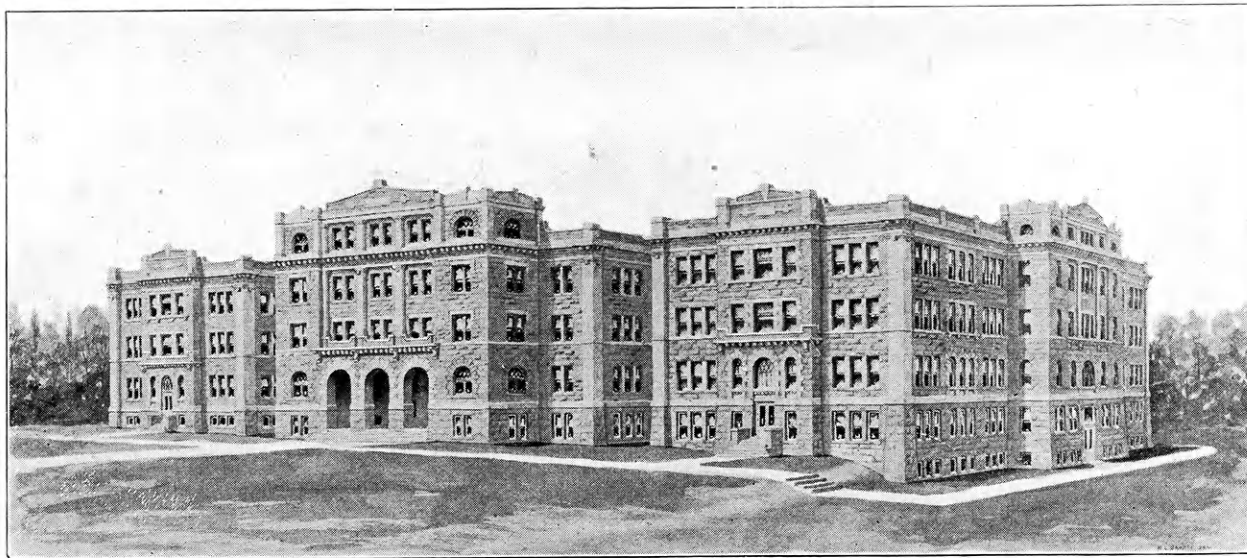
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Home Office, Manhattan, Kansas

## Here It Is Again!



This is the completed Waters Hall as once planned by the architect, with a large center section connecting the present "East Ag" and "West Ag." Now slated for the next home of the Extension Service, this wing will be an early structure on the building program if the \$460,000 requested by President Eisenhower in his budget is appropriated by the Legislature for the fiscal years 1948 and 1949. The east wing of the building was completed in 1913 and the west wing in 1923.

### Offer New Course In Extension Work

To give future county agents a more complete background, Leonard F. Neff, district supervisor in extension service, will offer a new course called "Extension Organization and Policies" next semester. Present plans call for a three-hour course offered MWF at 7.

In this course, Mr. Neff will discuss the history of the extension movement and explain the three phases of extension work: (1) planning a program; (2) putting the program over with the public; and (3) evaluating the results of the program.

Extension Organization and Policies will be offered to juniors and seniors in the Schools of Agriculture and Home Economics. It will replace the course Extension Methods for Men, which was discontinued during the war, and combine with two courses now being scheduled for home economists.

Mr. Neff would like to meet students interested in this course at his office, MS201. He also plans a series of meetings later this semester to publicize the opportunities in extension work.

"As a result of more than 20 years practical experience in extension

work, Mr. Neff is exceptionally well qualified to teach this course," commented H. Umberger, Director of the Division of College Extension. "I hasten to recommend it to students planning to enter the field of extension."—J. T.

### First Coeds into Block and Bridle

By ROGER WILKOWSKE

Women have invaded another man's organization. Miss Anne Threlkeld and Mrs. Keith Mull were initiated into the Block and Bridle Club at a formal initiation ceremony Tuesday, November 5. This is the first time in the history of the Block and Bridle Club that any women were included in its membership.

It was necessary to forego the regular initiation, but members of the club expressed their pleasure in having the club "coeducational". Both women are taking an active part in club activities.

Anne Threlkeld is a sophomore in agricultural journalism and acts as the reporter for the club. She was raised on a ranch southeast of Denver, Colorado, where her father had a herd of Aberdeen-Angus cattle. Her present home is in Topeka. Miss Threlkeld is

a member of Kappa Kappa Gamma Sorority.

Mrs. Keith Mull is a graduate student in home economics, while her husband is working for his degree in animal husbandry. She became interested in cattle when she raised an Angus calf as a 4-H Club project, and is now taking livestock judging along with her husband. They both come from farms near Pawnee Rock and plan to raise Herefords some day.

Maynard Abrahams, '43, who bought a ranch at Taft, Texas, after separation from the service, writes to Mrs. Gertrude Musil that his crops and livestock have done well, and that there is lots of good hunting on his place.

Charles C. Todd, '30, graduate in Ag Administration, was pictured in the December 16, 1946, issue of Life magazine in the illustrated article "The Redistribution of U. S. Wealth." Todd lives on his own farm in Shawnee County, is married, and has four children.

Selenium is a mineral found in many Mountain and Plains States soils. Absorbed by plants beyond a certain limit, it is highly injurious to animals grazing on these plants.





Cider flowed freely at the Ag Barnwarmer.

produce only a few weak squirts with .5, .2, and .1 pounds respectively. The contest was labeled unfair by some when Miss Smith's boy friend held the cow's tail. Miss Cline claimed she would have won the contest, if she could have kept the cow's tail out of her pail.

Dick Warren was the 1946 Barnwarmer manager and was assisted by Lloyd Moody. The committee chairmen were as follows: decorations, Howard Borchardt; queens, L. E. Loyd; properties, Ivan Strickler; refreshments, Tom Bentley; publicity, Lewis Schafer assisted by Glen Allen; tickets, Bob Randle; and program, Bill McMillan.

"All of the committee chairmen and their committees did an excellent job of making this year's Barnwarmer a success," said Prof. Merton L. Otto, chairman of the faculty Barnwarmer committee. Prof. Ronald Campbell, also a member of the faculty Barnwarmer committee, highly praised the work of the decorating committee led by Howard Borchardt. Many people, including Dean Throckmorton, stated that the decorating was the finest that it had been for a good many years.

Pictures of 59 former students and graduates of the School of Agriculture who lost their lives in World War II caught the attention of a great number of students of former years

who had known these men in College. The panel on which the pictures were mounted was prepared by the Dean's office.

### *Gates, Grad Student, Studies Mold Bran*

Robert L. Gates, graduate milling student who is completing his master's degree work in cereal chemistry this current semester, has developed a preparation of amylase active concentrate from mold bran for commercial production.

Gates received his B. S. degree in chemistry at Nebraska University in 1939. He entered the armed forces after graduation, and upon discharge returned for advanced study in cereal chemistry at Kansas State College. His work was sponsored by the Farm Crops Processing Corporation of Omaha. During the war this organization was prominent in the synthetic rubber program in production of alcohol from grain by the fermentation process. Since the war, F. C. P. C. has converted half its plant capacity from grain alcohol production into

the manufacturing of corn syrup.

In order to produce alcohol from grain, starch of the grain must be broken down to fermentable sugars. This breakdown may be accomplished in two ways—by acid hydrolysis or enzyme digestion. Two sources of the enzyme that digests starch into sugar are barley malt and mold bran. The mold bran is from ordinary wheat that has been sterilized and inoculated with fungus. The fungus is allowed to grow on the bran for 48 hours, during which time it produces this enzyme.

Because of certain disadvantages of using crude mold bran in the fermentation process, the F. C. P. C. sponsored Gates' work in developing a method of extracting and concentrating the enzyme which could be used in a commercial usable form. This method Gates has succeeded in developing, and the process has been placed in production.—E. D. S.

Poultry products now account for 13 percent of the national farm income. Fifty years ago they represented only 5 percent of the national farm income.

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# The Last Word

## Editorial Comment



### It's Getting Serious

Money isn't everything, but it sure helps a lot, so you can't blame the Minneapolis teachers in face of rising living costs for striking for more pay or even others for leaving their classrooms for better jobs in commercial fields. They are leaving one by one as these opportunities present themselves. Is the day coming when the fully qualified, efficient teacher will be extinct?

Every industrial and commercial line is demanding more educational preparation than ever before and at present is paying freely for it. Where are the well trained men and women of tomorrow going to be educated if the best teachers all leave their classrooms? It takes more than a classroom and students to make a school; there is still a place for the teacher.

This problem is descending upon every part of the country from the kindergarten through the college.

Will all the best professors be gone before something is done? Now is the time for action, now before it is too late!—L. A. S.

### Times Have Changed Says Joe College In Levis

By MERRILL H. WERTS

"It ain't that I don't believe in educatin' the kids," the old farmer from Smith county explained as he sat out in the cowlot doing his evening milking. "It's just that—well, my old dad made a livin' on this farm and I've always gotten along all right on what he taught me, so what's the use of sendin' my boys off to college fer four years and spendin' a lotta hard earned money on 'em when I can keep 'em right here and teach 'em all they need to know about farmin'."

It's surprising how well the opinion of this one old-timer typifies the opinions of many Kansas farmers when asked the question, "Do you think

prospective farmers should attend college?" It isn't just because they have a closed mind concerning the subject, either. They simply fail to realize that the present-day farmer must be worldly, just as is his brother seated behind a desk on Wall Street or an insurance executive in Chicago.

Let's take a look around the campus and see why some of our future farmers decided to come to Kansas State.

There's the cowboy from Barber county. He realizes that there is a possibility of his being involved in an accident sometime which might disable him for the rest of his life. He feels that holding a college degree might prove very valuable in such an emergency. In other words, his field would not be nearly so limited.

Then there's the fellow who plans to go into a bank in an agricultural community. He is convinced that one of the prime prerequisites for such a job is obtaining a general education in the field of agriculture. He needs to know the relation of agriculture to other fields. He needs to pick up the necessary cultural habits and knowledge which are readily obtainable in an agricultural school such as Kansas State. He needs to make necessary contacts, many of which can be brought about through his relations with his alma mater.

Some of the more logical and down-to-earth reasons for a young farmer attending college, though, were given by the average student in agriculture who will return to the average farm in Kansas. He is interested in finding out how others in his same field operate and how he can improve his own methods as well as those that he has learned from his father. He is also curious as to why his father has followed the practices that he has. Why is it that they are good practices? He wants to make his farming as much a science as it is an art.

The agriculturist of today is a person whose requirements for success better should be contrasted rather than compared with those requirements of a couple of generations ago. It is a fast moving world in which

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we are attempting to live, and if we are to survive, we must be very careful during our period of preparation. We wouldn't dare suggest that the old farmer submit himself to rigors of college at his age, but Mister, give your son a chance!

Roger Murphy, '43, is doing graduate work in agricultural economics at Cornell. He writes that he is busy now on his thesis which he will complete this term. He will stay at Cornell one more term and may decide to take his doctor's there. Cornell has excellent facilities, he says, for graduate students. He sees George Cochran, '41, and Floyd Blaser, '46, quite often.

Dale Knight, '45, writes from the University of Chicago where he is working toward his doctorate in economics. He is collecting material for an article on the implications of the Hope-Flannigan Act in post-war research and policies at Kansas State College.

About 90 percent of the world's clothing is made of cotton.