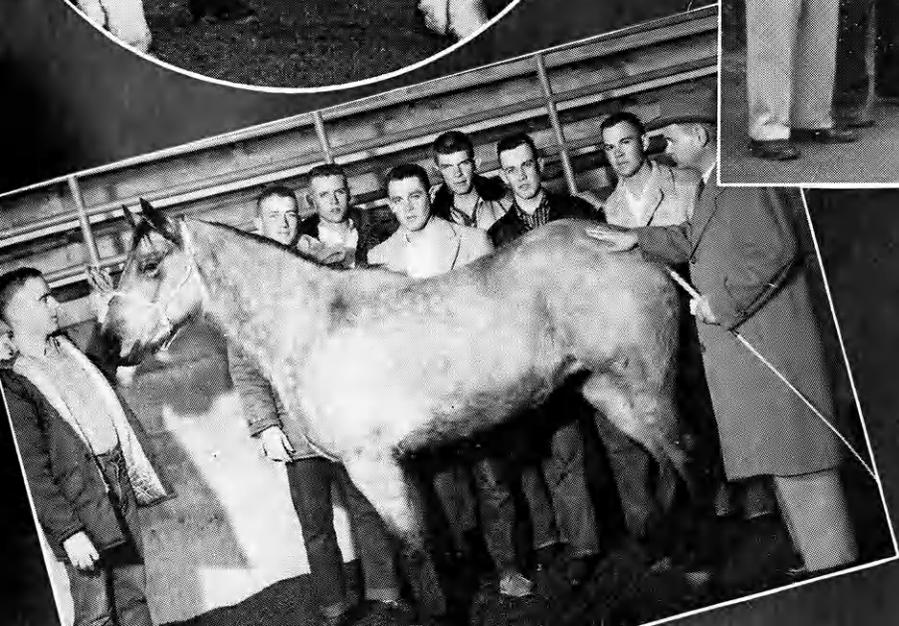
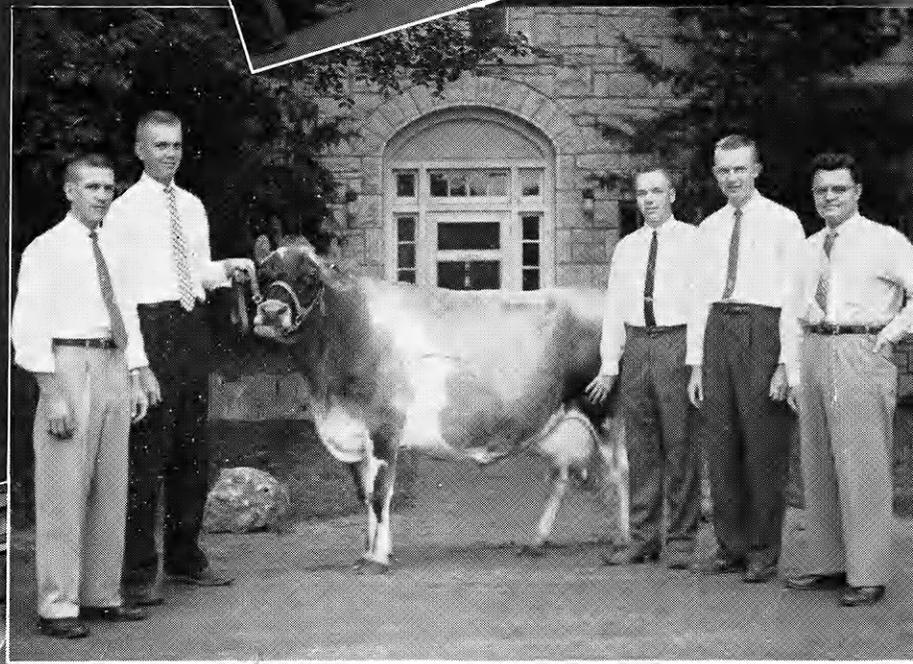
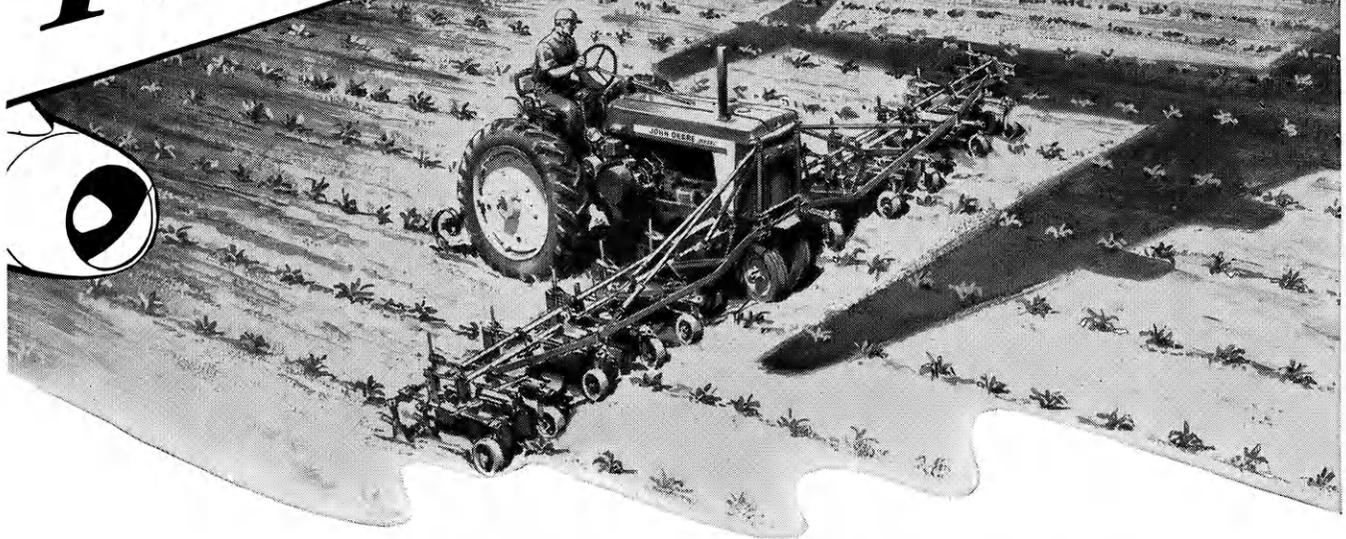


Kansas State College
AG STUDENT
MARCH 1938



Judging Events
14

Farming Spreads Its Wings



JOHN DEERE Tractor Power and New 6-ROW Equipment

It's here—a new way of farming that permits cotton farmers to meet and whip the bugaboos of bad weather, limited working time, and mounting labor and fuel costs by “going 6-row” with John Deere.

Now—with the eager, aggressive power of modern John Deere Tractors and the wide, hungry span of John Deere 6-Row Equipment—cotton farmers are right in the forefront of today's stepped-up farming pace. They can count on cutting fuel costs and working hours by as much as 1/3 and on increasing the efficiency of power and labor by as much as 50 per cent. And they are finding that it all shows up with a bigger figure on the profit side when tally is taken at the season's end.

It's Another John Deere First

The first in the field, the new John Deere line of 6-row equipment is a complete line which, for southland farmers, includes 6-row corn and cotton planters, 6-row bedders, and 6-row cultivators—each a part of the continued John Deere policy of “being there with the tools when they are needed”—each designed to carry on in the great tradition established in their John Deere 4-row counterparts.

Of course the big power and economy built into modern John Deere Tractors with the unmatched combination of modern features make them take naturally to 6-row farming, insure new savings in time, labor, and fuel for the farmer who “goes 6-row” with John Deere.



The John Deere 870 6-Row Bedder, shown here, “eats up the acres” with a broad, 6-row spread and leaves strip after strip of efficiently bedded or listed land behind.



The 684 Cotton and Corn Planter, shown here, does an accurate job of drilling or hill-dropping on flatland, on beds, or in furrows, planting six rows on every trip across the field.



JOHN DEERE

“WHEREVER CROPS GROW, THERE'S A GROWING DEMAND
FOR JOHN DEERE FARM EQUIPMENT”

On the Cover

The judging teams have had one of the greatest years at K-State this year. The cover is the four teams that won their respective contests along with Dr. Arthur D. Weber, dean of Agriculture. Of the 18 contests entered by the wool, crops, poultry, meats, dairy and dairy products, and livestock teams, K-State won 22 per cent of the contests.

The members of the wool team (upper left) accomplished a feat unmatched by any other team when the members won first, second and third honors individually at the American Royal in Kansas City last fall. Members of the team were, from left, Carl Menzies, team coach; Allan Henry, high individual of the contest; Ben Handlin, team alternate; Walter Martin, second high individual; and Dale Schilling, third high individual.

The two dairy cattle judging teams won both of their national contests and are coached by Dr. G. B. Marion. The senior team (upper right) won the national contest in Waterloo, Iowa, last fall. Members of the team were, from left, Darrell Westervelt, Gilmore Dahl, Charles Michaels, Jack Van Horn, and Dr. Marion. Michaels and Van Horn also made other teams.

Members of the first place junior team at Chicago were, from left, Dick Dunham, Stan Smith, Chester Peterson, Ray Schooley, and Dr. Marion.

K-State's junior livestock team won both the carload contest and the breed contest at the National Western livestock show in Denver. Members of this team were, from left, Frank Bell, Thurston Thiel, Bryan Barr, Rex Chambers, Dave Dettke, Don Schick, Jim Beauchamp, and Don Good, team coach.

Few pictures have been taken of "Dad" Weber judging the fat steer classes at the International Livestock exposition in Chicago. In the background is Sue Secondino showing her steer "Honeymoon." Later in the day Dr. Weber named "Honeymoon" as grand champion of the show.

What does it take to have a winning judging team? Like any other team, whether it is basketball, baseball, or football, hard work and a willingness to work on the part of the team members is essential, along with a good coach that can develop the team members' potential.—*Loren Henry.*

PHOTO CREDITS: Courtesy of Dairy department 6, 14, and cover; Courtesy Milling department 10 and 11; Courtesy Poultry department 14; Courtesy Agronomy department 15; Courtesy Animal Husbandry department 15, 16, and cover; Ag Student Staff.

Kansas State College AG STUDENT

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Over the Director's Desk

By C. Peairs Wilson
Director of the School of Agriculture

I WAS asked recently by a prominent industry associated with agriculture to comment on the question of the "Role of Land-Grant Colleges in Shaping the Future of Agriculture." Ag students might be interested in some thoughts along this line.

Agricultural colleges, experiment stations, and extension services have had, as a primary objective, the improvement of efficiency in the production, marketing, and consumption of agricultural products. The secondary effect has been the promotion of economic progress throughout the nation. This has been, perhaps, the major contribution of the land-grant colleges to our society.

Economic progress can be measured in terms of the proportion of the nation's total man hours devoted to the production of the basic essentials of life, food, and fiber. If a large proportion of the total man hours is used in the production of essentials, only a small proportion remains for the production of the comforts and luxuries of life.

When land-grant colleges were established nearly 100 years ago, 85 per cent of the population lived in rural areas. Today about 85 per cent of the population lives in cities and towns, thanks to modern agricultural

technology. What has happened to make this possible? A few examples from the record at Kansas State college will demonstrate the contributions of land-grant college teaching, research, and extension programs to the nation's welfare.

Production Increases

In the last 25 years the annual average production of eggs per hen has increased from slightly more than 100 to more than 200. Improved management, feeding, breeding, and housing practices, developed through research and disseminated through classrooms and extension programs, have helped to double production per hen.

Average milk production from 349 daughters of 36 bulls in the artificial breeding service unit is 10,500 pounds. The average for all cows in Kansas is about 5,000 pounds. Closing the gap between average and superior is a continuing challenge.

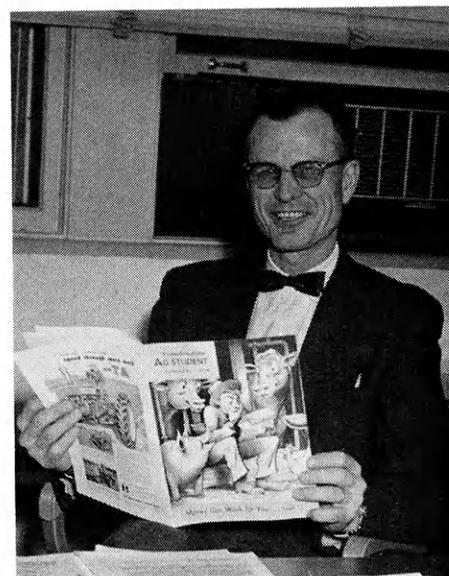
Closing the gap in growing irrigated grain sorghums presents the same challenge. Grain sorghums yielded an average of 97 bushels per acre, using the best known techniques of water application, fertilizer application, seeding rates, and cultural practices compared to 60 bushels per

acre under conventional irrigation practices.

Plant breeders at Kansas State college have developed new varieties of wheat that yield 30 per cent more than the original Turkey wheat imported into Kansas. These new varieties are resistant to many insects and diseases that would lay waste to millions of acres if planted to older varieties.

Plant breeders have developed a "combine type" sorghum that can be harvested with wheat combine. In 1957, Kansas harvested nearly 130 million bushels of grain sorghums. In recent years plant breeders have produced hybrid sorghum seed that promises to further increase yields per acre.

The development of new agricultural technology and disseminating of this information are only a part of

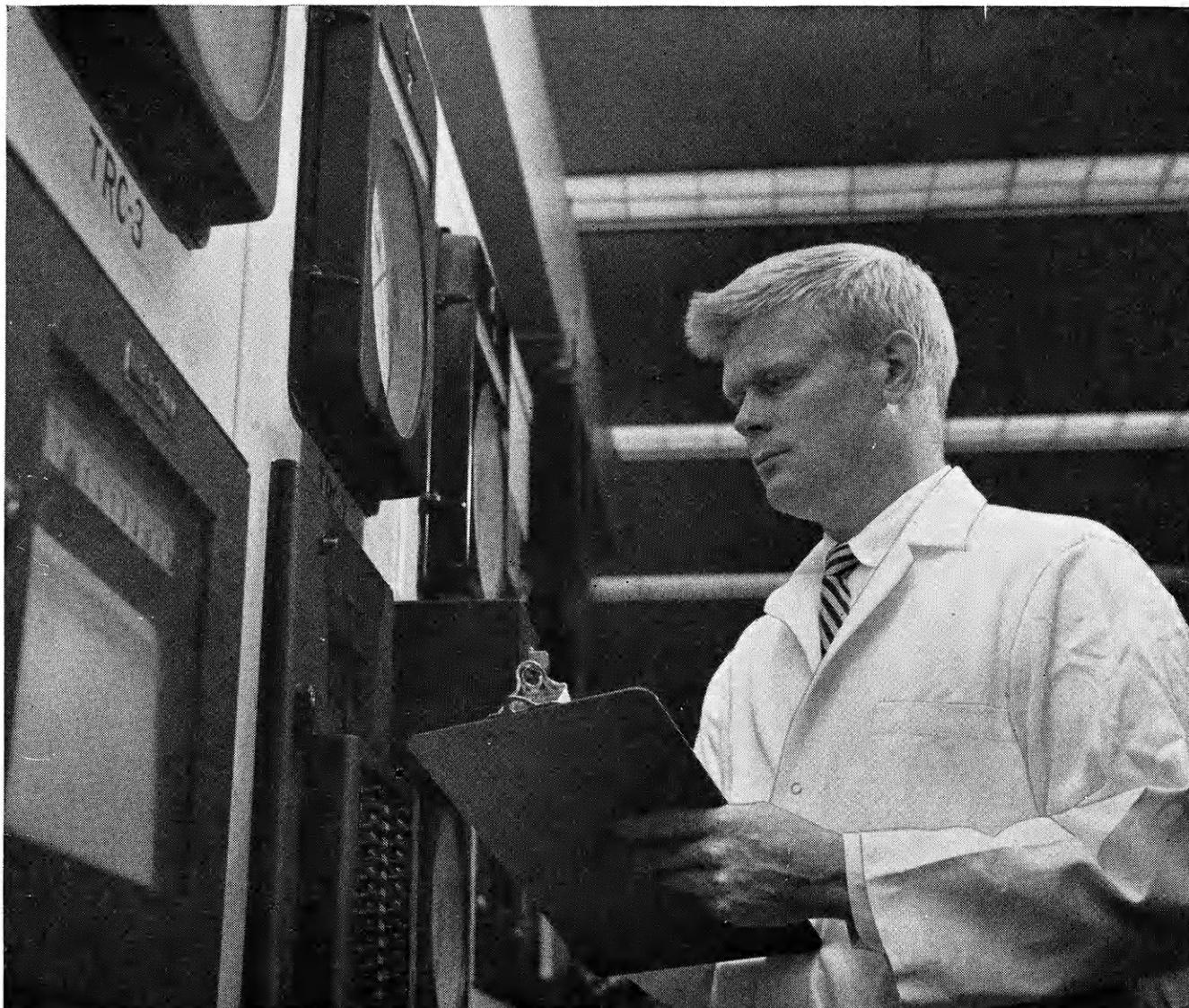


Director Wilson

the job of the land-grant colleges. Research, teaching, and extension programs are concerned with economic development, agricultural policy, and agricultural adjustments. Farmers, legislators, and administrators of programs need basic information and the results of sound research if wise decisions are to be made concerning the future of agriculture. Land-grant colleges can play an increasingly important role in this future.

Boys and girls are the most valuable resource of a nation. To develop in rural young people qualities that will make the nation great, the land-grant colleges, through the Extension

(Continued on page 24)



Pushing back the frontiers...in chemistry

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

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

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

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

Standard Oil Company

910 South Michigan Avenue, Chicago 80, Illinois



Window in Cow's Side

Aids Research

by Gary Sullivan

JONAH was in a good position to study a whale's stomach. Unfortunately, research workers at K-State do not know anyone small enough to be swallowed by a cow. Of course, the job would be hazardous. The cow might not vomit up our little scientist.

Research workers at K-State have found another way to get into a cow's stomach by putting a window in the side of the cow. Leaders on this project are E. E. Bartley, department of dairy husbandry, and L. R. Fina and G. W. Teresa, department of bacteriology.

Porcelain Tubes Used

Through a window in the side of the animal, porcelain test tubes are suspended into the rumen. These test tubes contain rumen bacteria and a sample of the material to be tested.

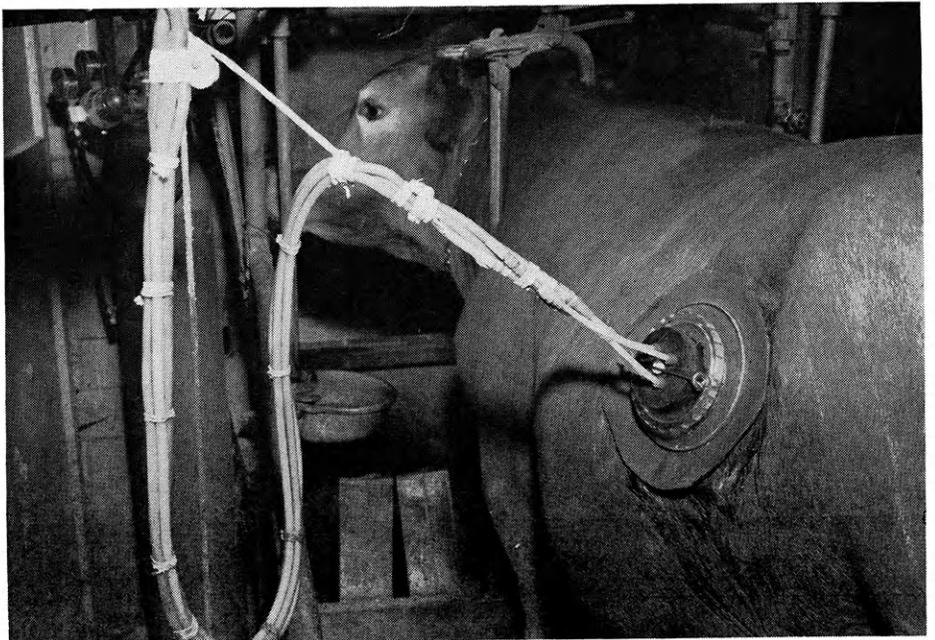
The special porous type of porcelain used allows fatty acids and glucose to pass through, but blocks the passage of certain gases, enzymes, antibiotics, and bacteria. Gases, fatty acids, and glucose are the products of bacterial action on complex carbohydrates, with gases as by-products that cannot be used by the animal.

Gases escape from the test tube through rubber hoses and are collected and measured.

The window or fistula causes little discomfort to the animal. Relatively painless surgical methods have been developed for implacing the fistula.

A nonirritating plastic frame is used. Rumen microorganisms play an important part in man's food production chain. The cell walls of plants are composed of varying percentages of cellulose and other hard-to-digest complex carbohydrates. No enzyme

Porcelain tubes are suspended into the rumen through the fistula and contain bacteria and material to be tested. Relatively painless surgery is used to implace the fistula.



produced by animals can digest these fibrous compounds. It is the bacteria living in the caecum and rumen of sheep and cattle and the large intestine of horses that break these down into usable nutrients. With the cell wall dissolved, the foods in the cells are made available.

Many of the animal's vitamin needs are supplied by rumen bacteria. All the known B-complex, vitamin K, and ascorbic acid are synthesized in the rumen. Only vitamins A and D appear to be needed in the ration.

Protein is also made available by these microorganisms. Part of the crude protein in the animal's ration is broken down by bacteria to ammonia. The ammonia in turn is used by the bacteria as nutrients and in reproduction. The bacteria are digested by the animal later in the digestive tract.

Nonprotein nitrogen, such as urea, can be synthesized into protein by rumen microorganisms. This is a very economical way to supply a part of the animal's protein diet. Best results are attained when corn or some other readily available carbohydrate is used. A practical feeding

ratio is 100 pounds of urea to 600 pounds of shelled corn. This is approximately equal to 700 pounds of soybean oil meal. Urea can be used to supply up to 33 per cent of the ration's protein. This would mean the total ration would contain not more than one per cent urea. A larger ratio of urea is toxic to the animal.

More Research Needed

Not much is known about the important work of rumen bacteria. Research workers have lacked methods of studying activity in the stomachs of living animals. For a number of years scientists have worked to duplicate stomach conditions in the laboratory. Temperature, changing chemical conditions, activity of the animal, and probably many unknown factors must be duplicated before accurate results can be attained.

One type of artificial rumen often used is a permeable cellophane sack suspended in a small jar of artificial sheep saliva. This synthetic saliva has approximately the same mineral composition as the saliva secreted in large

quantities into the rumen. The saliva acts to control acidity and absorbs some of the gas produced in digestion.

Artificial Rumen Analysis

The artificial rumen has both advantages and disadvantages. Its main advantages are convenience and economy. Because of its size, a large number of routine tests are performed economically. The major drawback of an artificial rumen is its limitations. Before the results can be applied they must be checked by live animal experiments.

With the aid of newly developed techniques, research workers hope to find more about the nutritional needs of rumen animals. It is known that certain feeds contain unidentified factors, which promote cellulose digestion. Much more research remains to be done on the mineral requirements of bacteria.

Both consumers and producers will benefit from the knowledge gained from these experiments. The results will help develop more efficient animals, lower production costs, and cheaper meat on the table.

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Dutch Elm Disease

Research Control Prevention

by Larry Greene

WHEN most people think of Dutch Elm disease, the first thought that enters their minds is the destruction to the many shade trees lining the streets, yards, and parks in our cities. It is just that they do so, since one shade tree is equal in value to several acres of forest trees. The approximate value of a 15-inch elm shade tree is \$75.

Many think of Kansas as primarily

a wheat and cattle state, and never consider the potential in forestry. Surprisingly enough, Dutch Elm disease is becoming a problem to this potential industry as well as being a serious danger to the elm as a shade tree. The extent of the problem can be seen with the approximate future of 1,250,000 acres of forests for the paper, pulp, and lumber industries. Dutch Elm disease could cause a

yearly loss of 15 per cent of the elm trees alone. The disease is not widespread in Kansas; however, it covers an area extending 50 miles west of Topeka to the Kansas-Missouri line.

The disease was first discovered in Holland, but its origin was traced to Asia. It is thought that it probably entered the United States during the First World War when elm burl logs were imported for veneer.

The disease is a wilt and the symptoms are much like other wilts and diebacks, so a disease cannot be easily diagnosed as Dutch Elm disease. This has caused extensive study to develop a "cultural technique" to determine the presence of the disease.

The outward symptoms are wilting of the leaves; leaves turning yellow, dull green or brown, with premature shedding; and the sudden or slow dying of the tree, often just a branch at a time. Internally the water-carrying vessels are a discolored, streaky brown, being clogged with a brown gumlike material. This discoloring is common to other wilts, requiring laboratory identification of the disease.

The disease attacks the younger trees more often than the older ones, yet will attack trees of all ages.

Beetles Transmit Disease

Dutch Elm disease is transmitted largely by beetles. The most common are the large and small European bark beetles, and the native dark elm beetle. The large and small European bark beetles were probably introduced in the United States the same time as

Dutch Elm disease attacks young trees more often than older ones; however, the disease will attack trees of all ages. The disease is transmitted largely by beetles, and by controlling the beetles the disease can be checked. The fungus, causing the disease, lives in sapwood and bark of logs and in dead trees, then it attacks healthy trees.



the disease on the same elm burl logs. The small dark beetle is the only one of the two introduced that became established in the United States.

The greatest infection by the beetles is during their feeding period, May 15 to July 30. The infection is greatest at this time because the water-carrying vessels are the most active.

Beetles are the most numerous transmitters of the disease. Control can be accomplished by destroying the beetles' feeding, breeding, and growing habitats. When spraying trees, it is necessary to cover and penetrate the bark thoroughly. This will take more spray material than used for spraying lice or aphids.

Sanitation is also important, be-

cause the fungus develops abundantly in the insect galleys and lives in the sapwood and bark of logs, also in dead or dying trees. High winds, heavy snow storms, and droughts of Kansas kill many trees and break many branches to form conditions for the fungus growth. For best results, spraying and sanitation must work closely together.

Prune Broken Branches

Sometimes when the disease has already infected a tree, Dutch Elm disease can be pruned from the tree, if it is found in the early stages before it reaches the tree trunk. There is no other cure for Dutch Elm disease.

The best method of controlling the disease is to stop it before it starts.

If Dutch Elm disease has already got its start, the next best method is to develop a tree resistant to the disease. This is now the most difficult means of controlling it.

Some of the Asiatic elms are resistant to the disease, but are poor substitutes for our American elms, since they are smaller. A seedling named Christine Buisman, discovered in Holland, is so highly resistant that it is now being tested in experimental plantings.

This is just a beginning of the possible destruction of our future forest industry, and Dutch Elm disease control and cure. Great gains have been made in the control of the disease, but there is a long way to go in its prevention.

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Honey in Baking

by Mary Jo Mauler

HONEY can now provide the additional variation in baking that all housewives are looking for. Previously people have mostly thought of honey for use as a spread or syrup. Now its use in baking has also been found.

New Uses Desired

The people of the United States consume large quantities of sugar and syrup. In 1953, we consumed

about 16 billion pounds of refined sugar and approximately 165 million gallons of syrup. Consumption of honey in 1953 was estimated at 17 million gallons, while total honey production and imports amounted to about 20 million gallons.

As a result of these figures, it was realized that a new use of honey should be found to promote a greater consumption of the product. During the past six years the Flour and Feed Milling department has been doing research to find ways of substituting honey for sugar in baking. According to Dr. John A. Johnson of the

department, 15 floral sources of honey have been used in making the substitute.

Honey in Bread

The first substitutes were made in the baking of bread. When honey is used in bread, several different changes can be observed in the quality of bread. The color intensity of the white bread crumb is proportional to the color intensity of the honey. Variations in moisture, acidity, or sugar content of the honey did not affect the quality of the bread to any extent.

WHITE BREAD

- 5 cups flour (all-purpose)
- 1 cake of yeast
- 2 tablespoons shortening
- 2 teaspoons salt
- 2½ tablespoons honey
- 2 cups milk

1. Scald milk and then cool to 80°.
2. Mix honey and yeast into milk and let stand 30 minutes.
3. Add salt and shortening and mix into flour.
4. Knead until smooth.
5. Place dough in a lightly greased deep pan and cover with damp cloth or plastic.
6. Set for approximately 2½ hours in a warm area.
7. The dough should then be divided into two pieces and allowed to rest 10 minutes before making into loaves and placing in pans.
8. It should then rest in warm area about 50 or 60 minutes, or until it raises to double its size and becomes light.
9. Bake at 400° for about 40 minutes.

The use of honey in cookies presents almost endless opportunities due to the large variety of cooky recipes. However, the high concentration of sugar in cookies presents more problems than the use of honey in bread.

Brittle and Chewy Cookies

Many cookies, as sugar cookies and gingersnaps, are a brittle type. The quantity of honey that can be used in this type of cooky must be limited because of the tendency of honey to impart "chewy" or tough properties to the finished cooky. Dr. Johnson states that 5 per cent is the maximum amount of sugar that can be replaced by honey and still make the sugar cooky acceptable. Thirty per cent of the sugar may be replaced in gingersnaps. An interesting improvement in flavor and color was also noted from the addition of honey. The browning reaction occurring between free reducing sugar and available amino nitrogen is associated with the improvements noted in cookies.

In the chewy types of cookies, such as fruit bars or brownies, a high concentration of honey was found to improve their quality. The fruit and spice flavors were complemented by the flavor of honey. The flavor and

appearance of the brownies were much enhanced by the addition of honey.

BROWNIES

- 1¼ cups granulated sugar
 - ½ cup shortening
 - ¼ cup honey
 - 1 teaspoon salt
 - 1¼ cups flour
 - ½ cup cocoa
 - 2½ eggs
 - 1½ tablespoons water
 - 1 teaspoon vanilla
 - ½ cup pecan pieces
1. Cream granulated sugar and shortening until smooth.
 2. Mix in honey and salt.
 3. Sift flour and cocoa together and add.
 4. Add eggs, water, and vanilla slowly and beat for 5 minutes.
 5. Add pecan pieces and mix only until uniformly mixed.
 6. Spread evenly about ½ inch thick over the bottom of greased layer pan.
 7. Bake at 350° about 45 minutes.
 8. Cool well before cutting into squares.

Honey in Cakes

Many different problems resulted in using honey in cakes. Dr. Johnson said that early observations demonstrated that the honey concentration had to be limited to about one third of the total sugar. If more was used an undesirable browning of the

crumb occurred with the development of burnt flavors associated with the browning. It is believed that if an adequate means could be devised to control the browning reaction, high concentrations of honey could be used in cake production. Desirable properties such as retention of moisture and elimination of crumbliness of the crumb could be achieved if a high concentration of honey could be used.

HONEY SPICE LAYER CAKE

- 1/2 cup granulated sugar
 - 1/3 cup shortening
 - 1/3 teaspoon salt
 - 1/2 teaspoon cloves
 - 1/2 teaspoon cinnamon
 - 1/2 teaspoon ginger
 - 1/3 teaspoon soda
 - 3 teaspoons baking powder
 - 2 cups cake flour (unsifted)
 - 3 eggs
 - 5 tablespoons molasses
 - 5 tablespoons honey
 - 1/2 cup milk
1. Cream granulated sugar, shortening, and salt until smooth.
 2. Sift dry ingredients together and add.
 3. Add eggs and molasses and gradually continue mixing for 5 minutes.
 4. Stir honey and milk together and add over a 2-minute period.
 5. Divide batter evenly into two 8-inch round layer pans.
 6. Bake at 360° about 30 minutes.

Honey used in bread changes the quality of the finished product, causing variations in moisture, acidity, and sugar content; however, in many cases the bread is improved.



30th Anniversary

Little American Royal

by Larry Laverentz

THE 30th annual Little American Royal will be in the new Animal Industries arena Saturday, March 29, at 7:30 p.m.

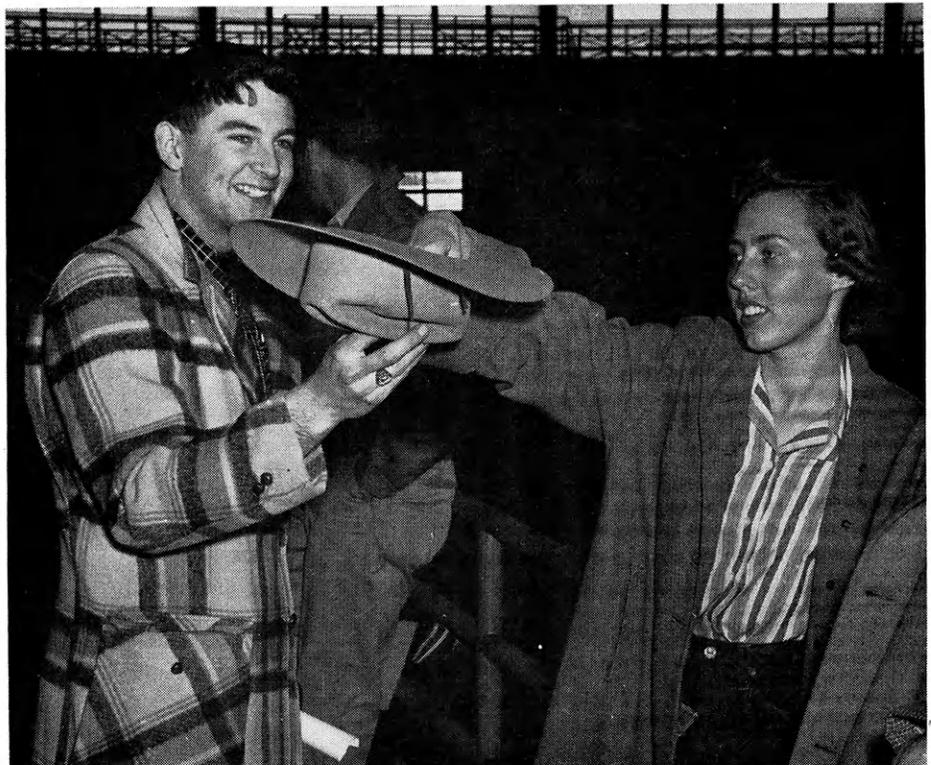
The top outside feature this year will be Marilyn Trent and her Roman horse team. She has previously appeared in Madison Square Garden. This year's Ag School Queen, Barbara David, of Winfield, will present awards.

History of LAR

The first Little American Royal in 1924 consisted of a livestock parade and exhibition sponsored jointly by the Block and Bridle club and Animal Husbandry department in conjunction with Farm and Home week. The Dairy club held their first show in 1927 and two years later the Dairy and Block and Bridle clubs combined their shows. Only during World War II when there was a decreased enrollment was the Little American Royal discontinued, but was resumed in 1948.

Until 1951 the Little American Royal was held in the Livestock Pavilion north of Waters hall. The increased space of Ahearn field house in 1951 made it a better show and now the facilities and room of the new Animal Industries arena should make this year's show the best ever.

Again this year the Little Royal will be two shows combined into one.



Alice Whitney, one of the 90 students to draw animals for the Little American Royal, is hoping to get a good gentle animal, while Harry Todd holds the hat with the numbers.

There is no grand champion of the Little Royal, but the spotlight is shared by the champion showman of the dairy division and the champion showman of the Block and Bridle division.

Students' Ability Shown

The judging of the animals will continue to follow the same pattern set in previous shows, with the quality

of the livestock not taken into consideration. Placings are made on how well the animal is groomed, and the showing ability of the student. The finalists will show not only their own animals, but will exchange animals in the ring and demonstrate their ability to show other types of livestock.

Trophies or awards will be awarded to the grand champion and reserve

champion in both divisions. Also trophies will be given to the champion showman of each of the four dairy breeds along with the top showman in horses, cattle, sheep, and swine. Ribbons will be given to the remaining contestants. The clowns will again add humor to this year's show.

Centerpiece

Traditionally the centerpiece is one of the most impressive parts of the Royal. The past few years the Block and Bridle and Dairy clubs have been alternating in building the centerpiece. This year's centerpiece will be made by the Block and Bridle division. This being the 30th anniversary the centerpiece will have a large 30 in the center, which will be white on a green background. Black ribbons around the outside with white letters will spell out Kansas State College at the top of the centerpiece and Little American Royal at the bottom of the centerpiece. The 16 feet in diameter centerpiece will be rotating on the floor in the center of the arena.

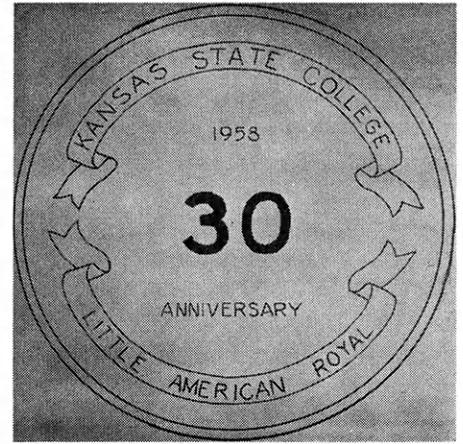
Again this year the Little Royal is managed by students. The organization, management, and general direc-

tion of this event is handled only through the students' efforts. Also the college herdsman play a prominent part as they assist the showmen in fitting and showing. Department heads and staff members give their support in making the Little Royal a top show.

Approximately 90 students signed up for this year's Little Royal. Drawings for horses, sheep, hogs, and dairy cattle were held Saturday, February 15, and for beef cattle Monday, February 17. Students are now in the act of fitting and grooming their animals for the big show.

Dr. G. B. Marion is faculty advisor for the Dairy club and Prof. D. L. Mackintosh is Block and Bridle club advisor. This year's executive committee consists of Lloyd Peckman, chairman; Richard Dunham, vice-chairman; Jack Van Horn, secretary; and Harry Todd, treasurer.

The following committees have been planning and working for several weeks: Properties, Ron Schultz and Gene Allen; decoration, Bryan Barr, Dwight Glenn, and Allan Henry; program book, Chester Peterson and Ben Brent; circulation, Janver Krehbiel and Janice Gaddis.



The artist's conception of the centerpiece is relatively simple; however, it is made with ground sawdust dyed in different colors and spells out the different letters.

Publicity, Loren Henry, Judy Fisher, and Darrell Webber; judges, Charles Michaels and Bill Clark; prizes and awards, Alice Whitney; radio and TV, John Milton and Don Schick; tickets and ushers, Dave Dettke and Gary Albright; entertainment, Ed Combs and Galen Murphy; door prizes, Leonard Drumright and Lawrence Odgers; and entries, Ray Schooley and Gary Cummings.

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Judging Teams

Wool Judgers Take Top 3 Individuals

Dairy Teams Win 2 Contests

Junior Livestock Team Wins at Denver

by *Lon Nelson*

FOUR firsts, three seconds, and three third places out of 18 contests are the results of K-State judging teams this past year. This enviable record is the result of many weeks of hard work, much of it the team members' own time.

The most recent success of K-State teams is the third place brought home from the Southwestern Livestock Exposition at Fort Worth January 29 by the meats team. From a field of eleven schools the K-State team, coached by Dr. R. A. Merkel, placed first in grading lamb, third in grad-

ing beef, fourth in beef and lamb judging, and sixth in pork judging. Carl Carlson was high individual in lamb judging. Previously, the team took second place honors at the International Livestock Exposition in Chicago.

Junior Livestock Teams

The junior livestock judging team placed first in the National Western Livestock Show Intercollegiate Livestock Judging Contest at Denver January 10 and 11. Frank Bell topped all individuals in beef cattle and was high individual in all classes. The team was first on hogs, second on sheep, third on beef cattle, and first on breeding cattle. Jimmy Beau-

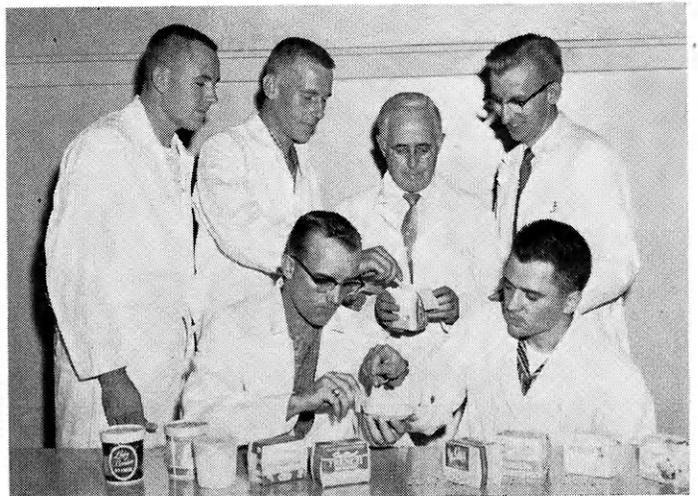
champ was high individual on hogs and seventh in all classes. In addition, Rex Chambers took fourth place individual honors on sheep and third in all classes. The carload contest saw the K-Staters placing first over-all and in hogs and sheep. Bell and Chambers tied for high in all classes. Bryan Barr was fifth on all classes. Members of this winning team were Thurston Thiel, Rex Chambers, Frank Bell, Jimmy Beauchamp, David Dettke, Donald Schick, and Bryan Barr.

A second junior livestock team tied for tenth place in the Fort Worth Exposition. Harry Todd was high individual in Herefords. The team as a whole ranked second in sheep.

The poultry team that placed second at Chicago is, from left, Ray Morrison, coach, Jack Kersting, Loyd Vernon, Donald Miller, and Clinton Russell. The team placed third in market products and second in breed selection. Vernon was second in the event.



Members of the third place dairy products teams are, standing, from left, Robert Paschal, Harold Suelter, W. H. Martin, team coach, and Ross Nicholson, assistant coach. Seated are Ravon Thaemert and Thomas Townsend. Team judged in San Francisco.





Members of the crops team that placed fourth in Kansas City and third in Chicago, from left, Max Urich, Jimmy Beauchamp, Jack Kersting, and Larry Zavesky. E. L. Mader was the coach.



Members of the American Royal meats team, from left, Darwin Francis, Coy Allen, Robert Merkel, coach, and Fred Toplikar who received a trophy for high individual from A. G. Pickett.

Hard Work Necessary

A great deal of work is necessary in preparing for these contests. The junior livestock team began working each Saturday after Thanksgiving and every afternoon at 4 p.m. until the time of the contests. Those trying out for the team returned to Manhattan several days early from Christmas vacation in order to get in extra preparation work.

Allan Henry, a member of last year's junior livestock team, says that about 20 hours a week are spent with the coach and nearly 10 hours of the individual's own time is utilized. But all this work is worth it, says Henry. "You meet people, learn honesty, and learn how to make sound judgment. K-State is lucky to have the wool coach and livestock coach we have," said Henry in referring to wool coach Carl Menzies and livestock coach Don Good.

Handlin Wins Royal

October 19 found the senior livestock judging team taking fourth place at the American Royal in Kansas City. K-State was first on beef cattle, second on swine, and sixth on sheep. Ben Handlin received high individual honors for all classes. He was high man on swine and fifth on cattle. The team also took part in the International Livestock Exposition in Chicago, November 30.

Handlin, who also was a member of the wool team, believes the time spent is well worth the effort. The opportunity to meet colleagues from other schools is only one of the rewards received. Handlin believes

that he enjoyed judging in the American Royal best "because I did my best work there," he explained. He went on to say that the experience gained from wool judging proved a valuable aid when judging livestock. "However, not quite as much preparation is required for wool," remarked Handlin.

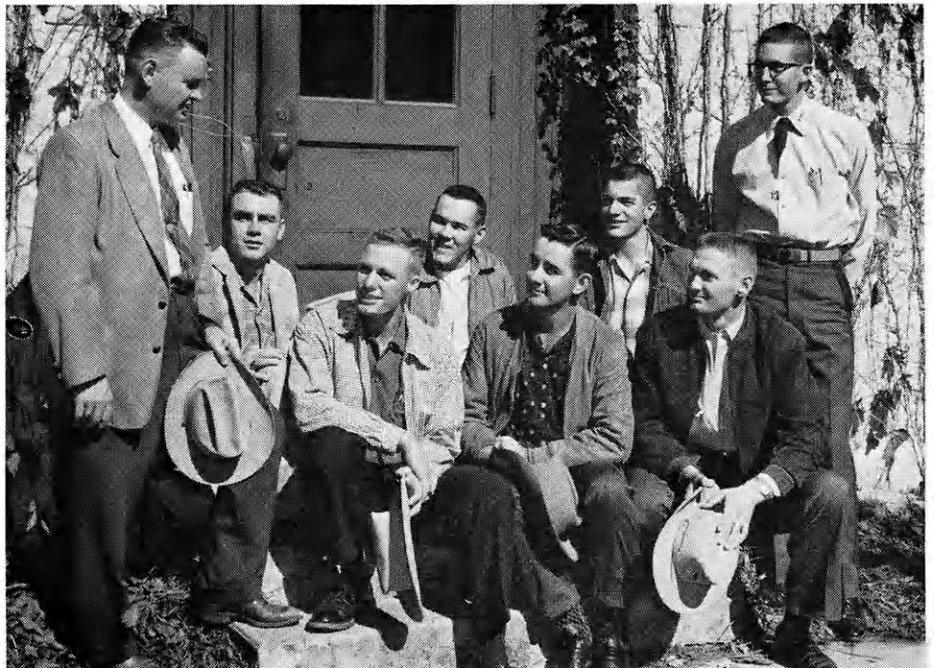
Wool Teams

The wool team Handlin referred to is the one that placed first in the American Royal. First, second, and third individual honors went to Allan Henry, Walter Martin, and

Dale Schilling, respectively. The team received first in judging commercial fleece classes and in grading commercial fleeces. Martin was high individual in commercial fleece. In grading fleeces, Henry was second, Martin third, and Schilling tenth. Handlin went as an alternate but reports that alternates must work just as hard as the team members. It will be hard to equal this team's record.

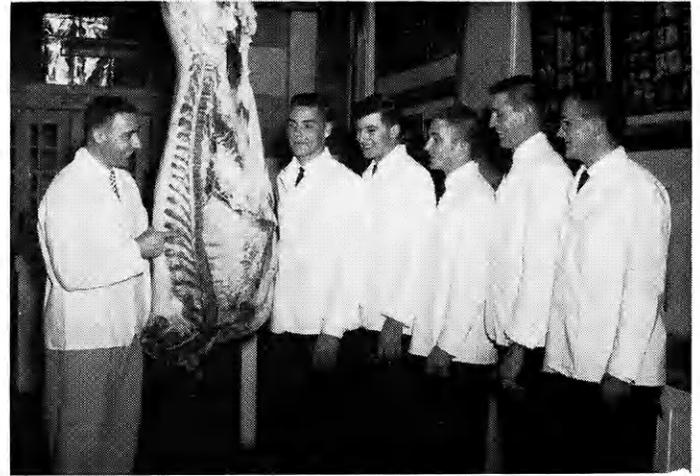
Another K-State wool team took fourth in the National Western Livestock Show in Denver in January. In order to be eligible for competition in the Denver show individuals must

Members of the fourth place senior livestock team at Kansas City, are, from left, Don Good, coach, Therean Towns, Jack Van Horn, John Balthrop, Ben Handlin, Dean Peter, Walter Martin, and Gerald Schmidt. Handlin was high individual in the annual event.





The fourth place wool team at the National Western Livestock show. Members are, from left, Don Mach, Jim Wittum, Burke Rogers, Ben Handlin, Rae Luginsland, and Carl Menzies, coach.



Coach Robert Merkel illustrates part of a carcass to the second place team at Chicago. Members are, from left, Fred Toplikar, Harry Todd, Darwin Francis, Charles Michaels, and Allen Fort.

not have judged at any other exposition or contest previously.

Dr. G. B. Marion's senior dairy cattle judging team walked away with a first place from a field of 33 teams at the International Intercollegiate Dairy Judging contest at Waterloo, Iowa, last fall. In the contest at the State Fair at Hutchinson, the K-State team ranked second. Team members were Charles Michaels, Jack Van Horn, Gilmore Dahl, and Darrell Westervelt.

Stan Smith, Chester Peterson, J. R. Dunham, and Ray Schooley made up the fine junior dairy team which took first from 16 participants at the International Dairy Show in Chicago. K-State can well be proud of a representation such as this.

Poultry Team

Although the poultry judging team, coached by Ray Morrison, com-

peted in only one contest, the International Poultry Judging contest in Chicago the early part of December, it placed second in all-around judging. Nineteen schools participated. The contest was divided into three divisions: production judging, breed selection, and market products judging. K-State placed 17th in production, second in breed selection, and third in market products.

Crops Team

K-State's crops team placed fourth in the Kansas City National Collegiate Grain Judging contest November 26. The team placed second in grain grading, with Jack Kersting tying for second place. The International Collegiate Crops Judging contest at Chicago found the team bettering itself as third place was taken. K-State took first in com-

mercial grading, fifth in seed judging and second in identification. Dr. E. L. Mader was coach.

Dairy Products Team

In San Francisco at the Collegiate Students International contest, October 21, the dairy products team did better than 20 other entrants by placing third. The Dairy Industry Supply cup for first place in cheese judging was awarded the team, coached by Prof. W. H. Martin. Thomas Townsend received a wrist watch for first place in milk judging.

Basketball is not K-State's only forte. Our judging teams rank with the nation's best also. Perhaps competing on judging teams promotes more fair play and sportsmanship than do athletic teams. The world's foremost expert on livestock judging is K-State's own Dr. A. D. (Dad) Weber, so why shouldn't we be tops!

Members of the junior livestock team are, from left, Don Good, coach, Loy Reinhardt, Coy Allen, Charles Michaels, Bill Mills, Harry Todd, Ron Schultz, Ron Sweat. They took 10th at Ft. Worth.



Members of senior livestock team, which placed seventeenth at Chicago, from left, Dean Peter, Jack Van Horn, John Balthrop, Walter Martin, Therean Towns, Ben Handlin, Don Good, coach.



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BA student: "Mom, I was in a fight today!"

Mother: "What happened, son?"

BA: "Some boy called me a sissy."

Mother: "What did you do?"

BA: "I hit him with my purse!"

On the first day of school, the teacher was explaining to the kindergarten class that if anyone had to go to the washroom, they should hold up two fingers. The voice of a little girl came from the back of the room.

"How's that gonna help?"

"Did your watch stop when it dropped on the floor?" asked a man of his friend.

"Sure," was the answer. "Did you think it would go through?"

First Frosh: "Say, did you know the student section in the Field House can seat the entire student body?"

Second Frosh: "Really!"

First Frosh: "Yeah, five hundred at a time."

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Green Pasture Farms
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Researchers Are Developing

Aphid Resistant Alfalfa

by Ed Swiercinsky

FOUNDATION stock is being developed for a variety of alfalfa that is resistant to the spotted alfalfa aphid, according to Dr. R. H. Painter, professor in entomology at K-State.

Dr. Painter stated that the spotted alfalfa aphid has spread very rapidly since it was first discovered in the United States in central New Mexico early in 1954. It was reported in Kansas late in 1954, and by fall of 1955 was found in practically every county in Kansas. This aphid has a yellowish body with six rows of brown or black spots on its back and is only about 1/16 of an inch long or 1/4 as large as the pea aphid.

Research was done by cooperation of entomologists and agronomists. Thirty-one varieties and strains of alfalfa were tested for resistance in the seedling stage in the greenhouse at the Fort Hays Branch Experiment Station and the main station here at Manhattan. Lahontan and Buffalo were the two varieties used in the final experimentation.

Two Varieties Used

Seed from these two varieties of alfalfa was planted in greenhouse flats. After a vigorous vegetative growth had developed, the plants were deliberately infested by spread-

ing the spotted alfalfa aphids uniformly on the plants. The plants that survived the aphid attack were kept and vegetative cuttings were made to increase the number of resistant plants. From these plants the seed was harvested and then replanted.

The replanted seed may lead to a new variety of alfalfa that is resistant to the spotted alfalfa aphid. This new variety of alfalfa may be on the market within two years; however, further research is necessary in yield, overwintering, and resistance against other insects and diseases.

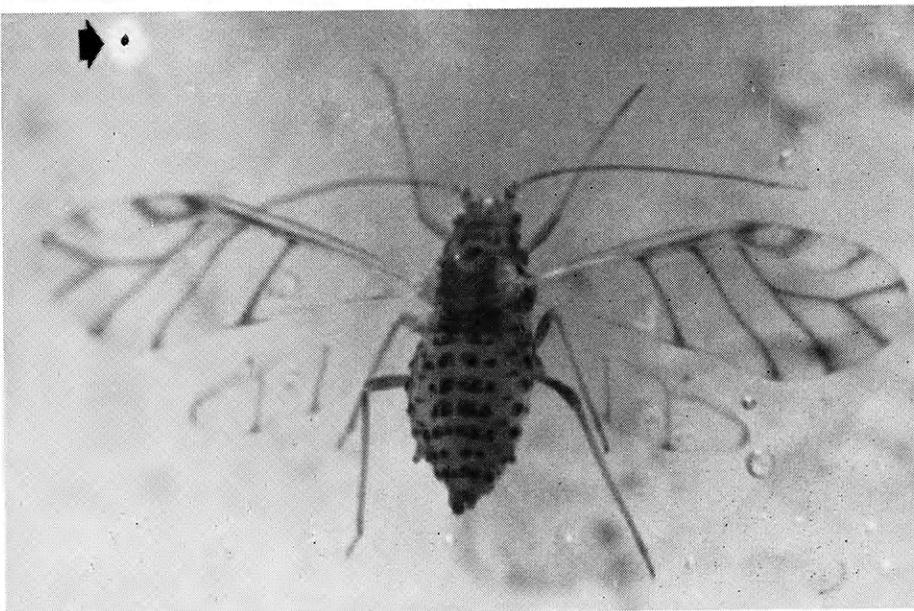
Spotted alfalfa aphids damage alfalfa by killing the lower leaves, and sometimes kill the entire plant. This defoliation results in reduction of yield and lowers the quality of the hay because of stemminess. The aphid also covers the plant with honeydew in which a black mold sometimes grows. This honeydew interferes with harvesting by clogging the machinery with this sticky material.

Aphid Control

Lady beetles have been the most effective control to date in Kansas, as they naturally prey on the aphid. In some instances, during late spring and summer, lady beetles were abundant enough to hold the aphids in check or sufficiently reduce the numbers so that spraying was unnecessary.

The spotted alfalfa aphid is easy to kill with insecticides, but it is difficult to prevent its reappearance. It spreads rapidly by flight and has a high reproductive rate.

The spotted alfalfa aphid with its actual size (arrow) is the insect that has wiped out many acres of alfalfa in Kansas and sparked researchers to develop a resistant variety.





Is Agriculture Ahead of the Population Increase?

by *Richard Vanderlip*

DID YOU have enough to eat at dinner yesterday? In 1798 Malthus predicted a period when population would be so great that agriculture could not produce enough food to satisfy the people's wants. Is this time near? In the U.S. alone there is

One birth every 7½ seconds
one death every 20 seconds
one immigrant every 1½ minutes
one emigrant every 20 minutes.

NET GAIN—One new person for whom agriculture must provide food, clothing, and other materials every 11 seconds. This means every hour there are 330 more persons, 7,920 more every day, 237,600 more every month, and nearly three million more persons to support every year.

Acreage Decreasing

With the exception of 1950-51 the acreage of cropland harvested has

been steadily decreasing. This means that more agricultural products must be produced on less land to keep up with the increasing population trend.

Has agriculture kept up with this growth in total population? Can it keep up in the future?

Production Increases

In the period from 1945 to 1955 population increased 83 per cent while total farm output was upped 86 per cent. USDA officials in the 1957 Agricultural Outlook state that the continued record level of farm output is due chiefly to the increase in livestock production.

Farmers in general, however, are becoming more efficient in their operations. The average farmer produced food and fiber for 15 others in 1945; he now provides for the needs of 20 persons here and abroad.

Increases in production have been

attained, at least in part, by mechanization. There has been a great increase in the use of machines on United States farms from 1945 to 1955.

Although population has nearly doubled since 1910, agriculture is still keeping ahead. Present surpluses will vouch for that.

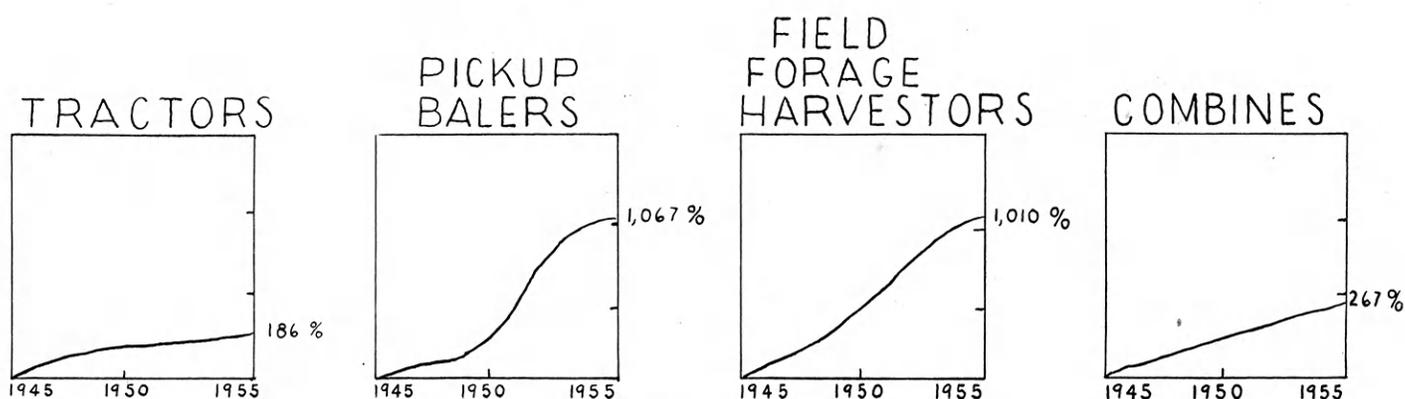
Wheat Yield Increases

In 1935 Kansas farmers produced \$80,000,000 worth of wheat. In 1955 the Kansas wheat crop was valued at \$279,000,000. Even with inflation, this indicates a tremendous increase in total production, and 1955 was not a peak year.

With modern equipment and technology, much of which has been developed in agricultural colleges, agriculture is making the great strides which have kept it abreast or ahead of population.

Using 1945 as 100 per cent, the graph illustrates the increase of mechanical equipment in agriculture throughout the country.

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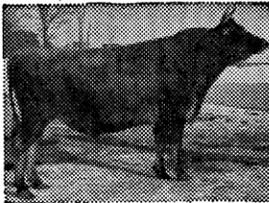
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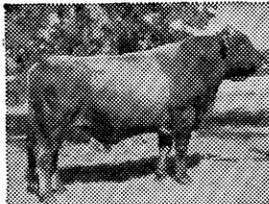
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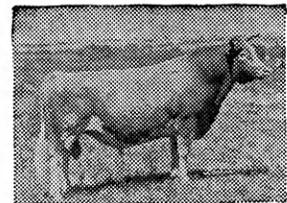
BROWN SWISS

The Sign of Progress

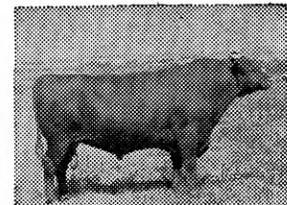
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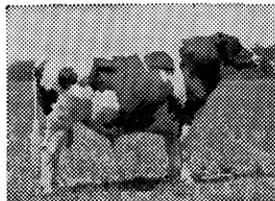
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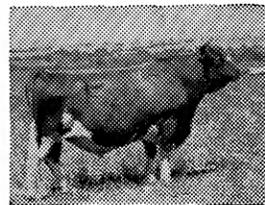
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Sick, but Comfortable

Sickness is no fun, but children are content when they are kept busy doing something time consuming.



by Karen Peterson

SPRING, with its usual bumper crop of "childhood" diseases, is just around the corner. Many mothers will face the added work of caring for sick children, as well as carrying on regular household tasks. These tips by Miss Jennie Williams of the Department of Family and Child Development are designed to make use of materials usually found in the home. Miss Williams is in charge of the Home Economics-Nursing program at Kansas State.

Whooping cough, smallpox, scarlet fever, measles, influenza, chickenpox, diphtheria, and the common cold are all spread through contact with discharges from the nose and throat. Because of this, special care should be taken in the disposal of paper tissues used for handkerchiefs.

Waste-Paper Bag

A simple waste-paper bag may be made from a double sheet of newspaper by first placing the newspaper folded in half, with the center fold toward the person making the bag. A cuff is made by bringing the top edge of the upper sheet down to the

center fold. After turning the paper over smooth side up with the center fold still toward the person making the bag, it is folded in thirds from the sides and creased well to hold the folds, then locked by tucking one whole side under the cuff of the other side. The flap is then brought down over the locked cuff, to be used either as a cover for the bag or as a means of fastening the bag to the side of the bed.

Newspaper bedroom slippers may be made in a similar way. A "garage" or cover for a bedpan is simple to make, using a newspaper and safety pins.

Pasteboard Box Uses

Pasteboard boxes find many uses in the sick room. By removing all the top covers and cutting out curved portions on the long sides of the box to fit over the patient's thighs, a table for eating, writing, and other similar activities is made. A box treated in the same way may be used for a bed cradle. The size of box used depends on the part of the body to be protected from the weight of the covers.

Other items which may be made from cardboard boxes are back rests and foot rests. Complete instructions may be found in the American Red Cross Home Nursing text.

A bedpan may be improvised from a cardboard box and a wash basin. Select for the bottom one side of a box approximately 14 x 12 x 6 inches, making sure it is firm. Leaving one end open, cut an oval opening in the top of the box, three or four inches from the closed end. Slide the basin under the opening, using several thicknesses of newspaper to bring it as close to the top of the box as possible.

A large towel may be folded into a shoulder shawl to protect the patient against chilling. For warmth and protection when the patient is up and about, a bathrobe may be made from a blanket fastened with safety pins.

To protect pressure areas such as elbows, heels, and ears, a "donut" support is often used. A clean stocking of cotton or soft wool is turned with the seam to the outside and

(Continued on page 26)

In the

Aggies' World

"Prof At" Recognized

PROF. F. W. ATKESON, head of the Dairy department, was presented the "Outstanding Kansas Dairyman" award at the recent Dairy Progress days.

Professor Atkeson has been a founder and leader in local and national dairy work. He was honored by several of the students who had studied and worked under him as undergraduates. These young men spoke of a few of the outstanding jobs the professor has accomplished.

Professor Atkeson is the sixth man to be honored by Kansas dairymen. A picture of the professor was placed on the wall in West Waters hall with pictures of other men who have been honored.

Urich Awarded Scholarship

MAX URICH, TA Sr, was recently awarded a \$100 scholarship by the Kansas Seed Dealers Association.

Carl Votapka, president of the association, made the presentation at the association's annual convention.

The scholarship is awarded to an outstanding senior student in agronomy. Urich has maintained better than a 2.5 grade average during his college career.

A scholarship committee in the agronomy department selected the winner of the award.

Urich, a member of the Klod and Kernel Klub, was third high individual at the International Collegiate Crops Judging contest in Chicago last November.

Dean Weber Returns

DR. ARTHUR D. WEBER, dean of Agriculture, is back from his two-months trip to India.

Dr. Weber went to India on an inspection trip to view the work being done by K-State staff members in India. Eight members of the faculty are doing research and educational work in some of the agricultural and veterinary schools in India.

Dr. Weber said he was pleased with the work being done by the K-State men and their wives. He said some of the extension work is very good, considering the conditions the faculty has to work in.

While in India Dr. Weber visited with several Indian educators and members of the Indian government. He conferred with Ambassador Ellsworth Bunker and Minister-Director Howard E. Houston of the United States Technical Cooperation mission.

Dr. Weber said one of the highlights of his trip was to hear Congressman Dalip S. Saund of California address the Indian Parliament. Congressman Saund is a native Indian who came to the United States 37 years ago. Dr. Weber said he thought the California congressman made a most favorable impression on the Indian people and felt that his talk helped to strengthen the United States technical program.

Meats Judgers Win Third

KANSAS STATE'S meats judging team placed third among 11 teams at the recent Southwest Livestock Exposition at Fort Worth.

The K-State team coached by Dr. Robert A. Merkel was first in lamb grading and third in beef grading.

Kansas State's junior livestock judging team tied for 10th at the same contest.

For more information on the Kansas State judging teams read the feature article in this issue of the Ag Student.

Milling Scholarship

THE \$300 Standard Milling Company scholarship has been awarded to Jack Kersting, AEd Sr.

Dr. Ray V. Olson, head of the K-State agronomy department, said the award is made annually to the outstanding K-State senior studying in cereal crop improvement.

Kersting was selected on the basis of scholarship and participation in college activities. He is a member of Alpha Zeta and Phi Eta Sigma scholastic honoraries.

Kersting has been a member of the crops team and the poultry judging team and has participated in national judging contests at Kansas City and Chicago.

KABSU Has Largest Year

THE KANSAS Artificial Breeding Service unit had its biggest year of operation in 1957 with 47,759 services by the 72 cooperating county artificial breeding associations.

This was an increase of 1,979 first services, or better than 4 per cent, over the 45,780 first services in 1956, according to Ed Call, KABSU fieldman.

KABSU is a non-tax supported part of the department of dairy husbandry. Organized in 1950, the unit has provided a dependable dairy improvement program through artificial breeding.

Farm Mechanics Contest

THEREAN TOWNS, AH Sr, and Jerry Greene, AEd Jr, tied for first in the senior division of the third annual Farm Mechanics contest; Gerald Brune, AH Sr, won the junior division sponsored by the Ag Education club.

Students were graded on their ability to recondition tools, correct mechanical faults on farm machinery,

weld, and their ability to do carpentry work.

In the senior division of the contest Jack Kersting, AEd Sr, was first in carpentry; Towns, second; and Lee Curtis, AEd So, third. Gary Allen, AEd Jr, was first in tool conditioning; Jerry Greene, second; and Harold Severance, AEd Jr, third. Greene was first in welding; Curtis, Towns, Severance, and Larry Riat tied for

second. Greene was also first in farm power and machinery; Severance, second; and Curtis, third.

Over-all in the junior division Gerald Brune, AH Sr, was first; Bob Heise, AEd Jr, second; and Dean Knewtson, AEd So, third.

Other placings in the junior division were carpentry, George Eisele, Ag Fr, first; Brune, second; Don Miller, AEd So, third. Knewtson was first in the junior welding contest; Heise, second; and Herbert Wenger, AEd Jr, and Gerald Clary, AEd So, tied for third.

George Brune was first in tool conditioning; Kent Massey, AEd So, second; and Heise and Darrell Webber, Ag So, tied for third.

Ben Brent won first in the farm power and machinery contest. John Anderson, Ag Sr, Darrell Westervelt, Ag Sr, and Brune all tied for third.

Galen Rapp (center), chairman of the awards committee for the Farm Mechanics contest, presents first place awards to Jerry Greene (left) and Therean Towns, who tied for first.



Milling Gets Donation

A SOUTH American miller has donated \$500 towards the re-establishment of the K-State flour mill and other facilities that were destroyed in the disastrous East Waters hall fire last August.

Dr. John Shellenberger, head of the K-State department of flour and feed milling, reported the receipt of the gift from Miguel Rosic, of Lima, Peru.

"I read in some milling magazine that your school has burned," wrote Rosic. "I am so very deeply impressed that you are without a school that I have asked the National City Bank of New York to send you from my savings account five hundred dollars. If I had a million dollars, I would rebuild the school for you, but unfortunately I am poor, so I cannot."

He continued: "Dr. Shellenberger, you are producing the very best millers, and my wish is that American millers should continue to be the best in the world. But without your school, you cannot accomplish this."

Dr. Shellenberger said he became acquainted with Rosic when he was in Argentina in 1943. Rosic's daughter Lilly, now Mrs. John Trout of Chicago, attended K-State two years ago.

The \$500 gift from Rosic has been turned over to the K-State Endowment association to be held until rebuilding is begun on the facilities destroyed in the fire.

State FFA Contests

DATES for the 35th annual Kansas high school vocational agriculture judging contest will be April 28 and 29, according to Dr. Rufus Cox, head of K-State's animal husbandry department.

The contests are an annual spring event on the K-State campus.

This year more than 1,200 Future Farmers of America from 140 chapters over the state are expected to participate and also take part in the 30th annual meeting of the Kansas association of Future Farmers of America.

Bob Krehbiel, AH Fr from McPherson, state FFA president, will preside at the FFA meeting and annual banquet the final night. Other state officers are John R. Baird, AE Fr, vice-president; Gary Cromwell, AEd Soph, secretary; Loyd Oswald, Natoma, reporter; Don Huntington, FT Fr, treasurer; and Bernard Owen, AEC Fr, sentinel.

Adult Kansas FFA leaders are C. C.

Eustace, Topeka, state adviser; and F. R. Carpenter, Topeka, state executive secretary.

IFYEs Named

SIX YOUNG Kansans were announced as the 1958 delegates for the International Farm Youth Exchange students to visit foreign countries this summer.

The six students are Clifford Gruver, FT Jr, who will go to the Middle East; Dean Ebel, AEd Jr, to Greece; Billy Clark, Ag Sr, to Scotland; Ann Eklund, HDA Sr, to Ireland and North Ireland; Emily Ann Douthit, EEd Jr, who has not been assigned yet; and James L. Gooch, a student at Oklahoma State university from Hugoton, Kansas.

Harlan Copeland, assistant state 4-H club leader, said applicants were interviewed by a selection committee and recommended to the National 4-H Foundation, which sponsors the IFYE project in cooperation with federal and state extension services.

Director's Desk

(Continued from page 4)

services, conduct the 4-H club program. Developing the knowledge and skills of farming and homemaking and qualities of leadership, citizenship, and community service is an activity that will help shape the future of agriculture.

Altogether too few rural youth attend college. A smaller percentage of farmers' children attend college than do skilled and unskilled laborers' children. Twice the number of white collar workers' children and nearly three times the number of professional workers' children attend college.

Technical Training Necessary

Farming at one time was a field that required little training, but the need for technical training is becoming a necessity. This can be credited largely to technology, which is opening vast new frontiers for farm-reared youth in three broad areas: in agricultural science that will further develop new technology; in businesses and industries that will

buy, sell, and process agricultural products, and produce and sell supplies and services to farmers; and in operating the farms and ranches that will specialize and use modern technology.

College Education Needed

To take advantage of these vast new opportunities for farm-reared youth, a college education is almost a necessity. Whether they will return to the farm, take a job in industries associated with agriculture, or become agricultural scientists, today's high school age youth are likely to feel severely handicapped quite early in life if they do not have training beyond high school.

The land-grant colleges, the first colleges to provide the opportunity for a higher education to the sons and daughters of all families, continue to offer their facilities and services to those who will, in the final analysis, shape the future of agriculture in America.

Student Housing: "How do you like your room as a whole?"

Aggie: "As a hole, it's fine; as a room, it's terrible."

"Honey, while we're sitting out here in the moonlight I want to ask you a question."

"Yes, my darling."

"Could we move over a little? I'm sitting on a nail."

The father had decided to pay his freshman son a surprise visit at school. Arriving at two o'clock in the morning he pounded on the fraternity house door. "Does John Furd live here?" he called to the tired looking face that had appeared in an upstairs window.

"Yeah," answered the face wearily, "bring him in."

"Hello, is this the student laundry?"

"Yes sir."

"Well, come and get me; I'm dirty."

"Stopped your grandma from sliding down the banister yet?"

"Yeah, last week I wound barbed wire around it."

"Did that stop her?"

"No. Sure slowed her down, though."

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A. D. Kauer

Agronomy Farm Supervisor

by Dean Peter

AFTER 13 years at the K-State agronomy farm, 11 of them as supervisor, Mr. A. D. Kauer says there are many things he would do differently if he were to return to farming on his own. "You are never too old to learn and I've learned something new nearly every day at the farm," says Tom, as his friends call him.

Former Farmer

Mr. Kauer was born in 1893 near Ogden, Kansas, where he was raised and farmed until he moved to Manhattan. He left the farm because of a back ailment which made it difficult for him to do heavy farm work. Dr. R. I. Throckmorton, his neighbor at that time, suggested he start working at the agronomy farm. He started in April of 1945. Two years later Mr. Kauer took over as supervisor.

Mr. and Mrs. Kauer were married in 1930 and have two daughters, both of whom are married. One lives in Bloomington, Illinois, where her husband is employed with a major electric company. The other lives in

Manhattan where her husband is stationed at Fort Riley.

Mr. and Mrs. Kauer live in a modern home near Manhattan. They lived in Manhattan until a few years ago when they moved to the country because Tom didn't like the noise and restrictions of living in town. Mrs. Kauer cooks for the athletic training table at the college.

Mr. Kauer talks with pride of the 480-acre agronomy farm and the work carried on there. They maintain experimental plots and raise certified seed. Research men set up the experiment criteria and the workers at the farm carry out the mechanics of the tests.

Hybrids Tested

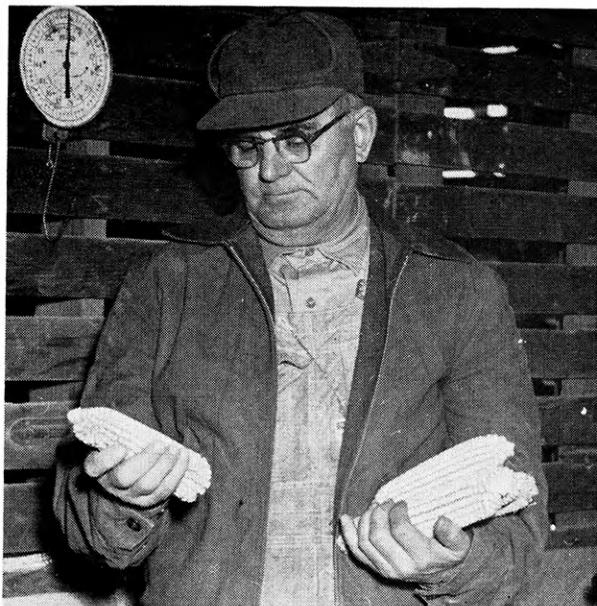
Present work is being done with hybrid varieties of milo and corn. There are as high as 1600 test plots for hybrid corn production. The plots are prepared by the farm crew and the research men mark the check plots and plant the varieties, with 20 hills per variety. The farm also raises alfalfa, sweet clover, and oats. All the land is farmed on a dryland basis.

During the winter months, much of the work at the farm consists of general farm upkeep, machinery repair, and seed cleaning and treating.

Tom spends much of his spare time hunting and fishing.

Adjusting to working for someone else and doing work with such small plots was a little difficult at first, but Mr. Kauer is glad he made the change. He hasn't been bothered by his back since the first year at the agronomy farm.

A. D. Kauer, agronomy farm supervisor, has been at K-State for the past 13 years and is enthusiastic about work at the farm.



Sick, but Comfortable

(Continued from page 21)

rolled from the hem or top firmly over and over toward the outside all the way down, including the toe.

There are several ways in which a bed may be raised to a convenient working level. One requires four large-size cans with tops which have been cut off. The cans are filled about half full of sand, small pebbles, or gravel, making sure all are filled to the same level. The can lids are then dropped down on top of the sand. After the casters have been removed, each leg of the bed is placed in a can. Another way to raise a bed is to insert cinder blocks under each leg after the casters have been removed.

Children Hobbies

Convalescing children enjoy making things with plastic clay. A solid working surface may be made by shellacking a simple board so that it will not absorb oils from the clay. Girls may like to embroider or weave on a loom made from an eight-by-eight-inch piece of cardboard.

Boys can make funny faces from paper sacks, using scissors, crayons,

and glue. Holes are cut for eyes, nose, and mouth. Hair is fringed paper, colored and glued on.

A native of Texas went back East and was boasting at length of his state's fine climate and scenic beauties. "Why, gentlemen," said he, "all Texas needs is more water and a little better class of people."

Came the quick answer—"Man, that's all hell needs!"

Three deaf Englishmen were riding on a train. As the train entered the station the first said, "This is Wembley, isn't it?"

"No, it's Thursday," answered the second.

"So am I," said the third. "Let's get off and have a drink."

"Man, does it ever get cold here!" said the western Kansas sheep raiser. "Why just the other day a bunch of sheep started to jump a fence and they froze ten feet off of the ground."

Said his friend a little doubtfully, "What about the law of gravity?"

"I told you it was cold; it froze too."

"The girl sitting next to me in our last class doesn't seem very intelligent."

"Yeah, she hasn't looked at me either."

At 10 a.m. the telephone at the reception desk of a large hotel rang frantically.

"What time does your bar open?" someone asked.

"At noon, sir," answered the hotel clerk.

At 11 a.m. it rang again.

"Say, Mac, what time dosh your bar open up?"

"At noon, sir." This time the clerk was emphatic.

At 11:45 a.m. the telephone rang again.

"Shay, fren, pleesh tell me (burp) . . . scuze me; pleez tell me when dosh yer bar open up."

"At noon, sir," the clerk answered. "But I'm afraid that in your condition you won't be allowed to come in."

"Come in? Hell, I wanna get out."

Joe: "Cigarette cough?"

Moe: "No, that was me."

Certified Seed

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Otis

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K1639
K1784
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K1859
U.S. 523W

Grasses

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Blackwell Switchgrass
Caddo Switchgrass
El Reno Sideoats Grama

Oats

Andrew
Cherokee
Kanota
Mo. 0-205
Nemaha

Sorghum-forage

Atlas
Axtell
Early Sumac
Ellis
Kansas Orange

Sorghum-grain

Coes
Martin
Midland
Plainsman
Westland

Sorghum-hybrid

RS 590
RS 610
RS 650

Soybeans

Clark

Sudangrass

Greenleaf
Wheeler

Sweetclover

Madrid

For a free copy of a booklet listing the growers of the above crops contact:

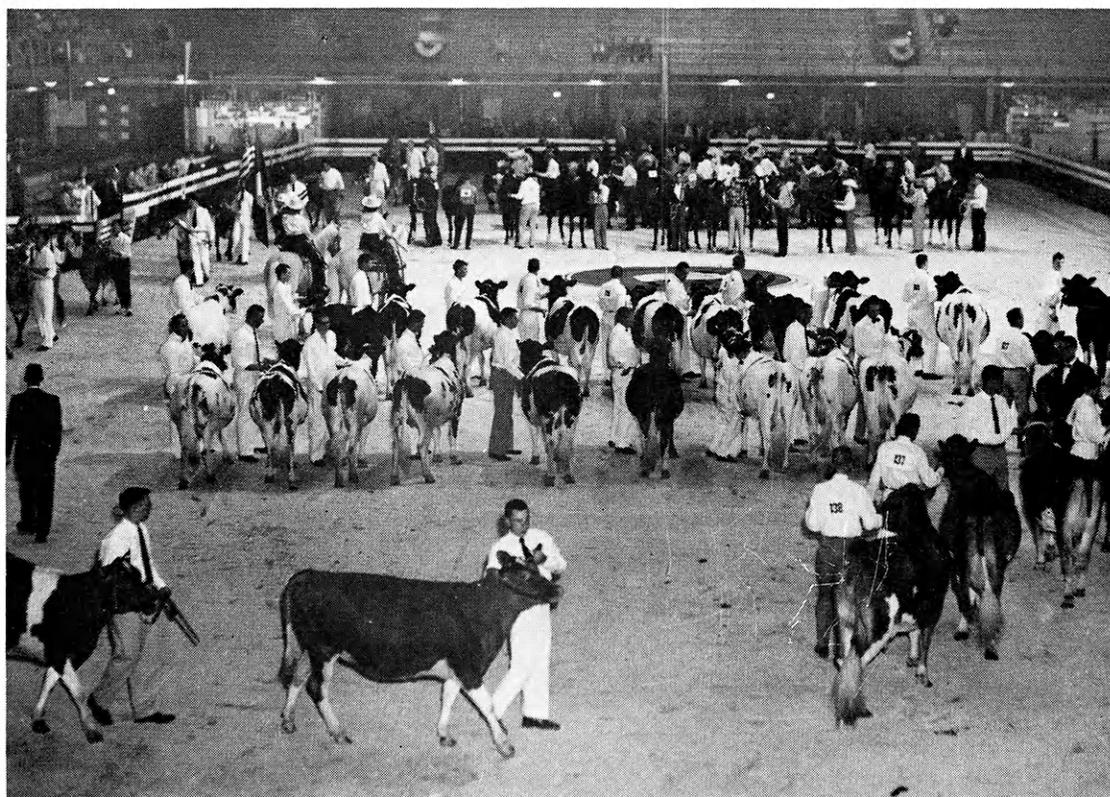
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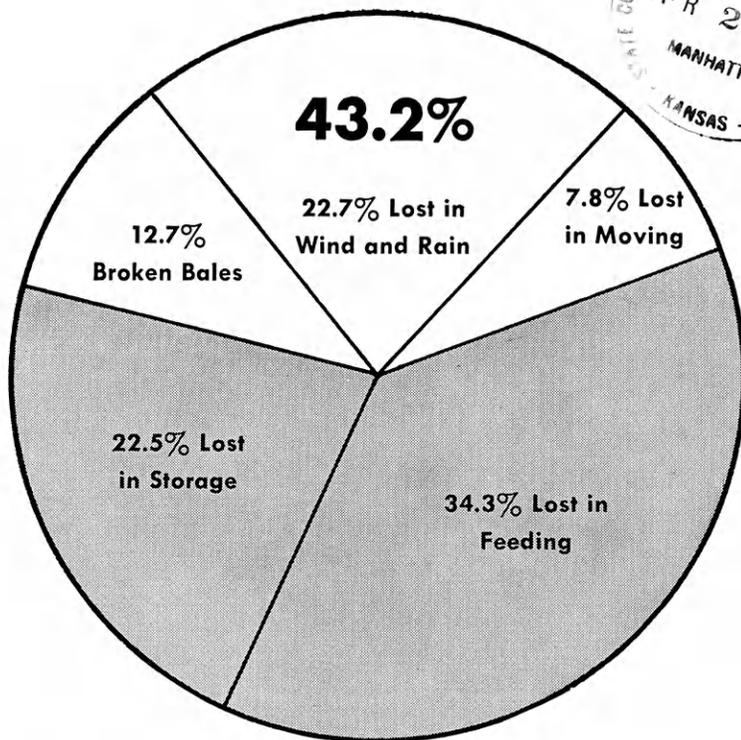
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