

Kansas State College
AG STUDENT

MARCH 1956

v. 32: 4



Don't Ruin It Cooking It page 12

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Kansas State College AG STUDENT

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ON THE COVER

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Nearly everyone enjoys a juicy, tender steak. The goal of every good cook is to make not only steaks, but all meat dishes, better.

If Americans could raise their per capita consumption of all meat, maybe some of the nation's surplus grain could be fed to meat producing livestock. These animals could be eaten as nutritious food by town and country people alike.

Greater meat consumption might be the answer to utilization of idle acres proposed by the soilbank plan now hitting the news headlines.

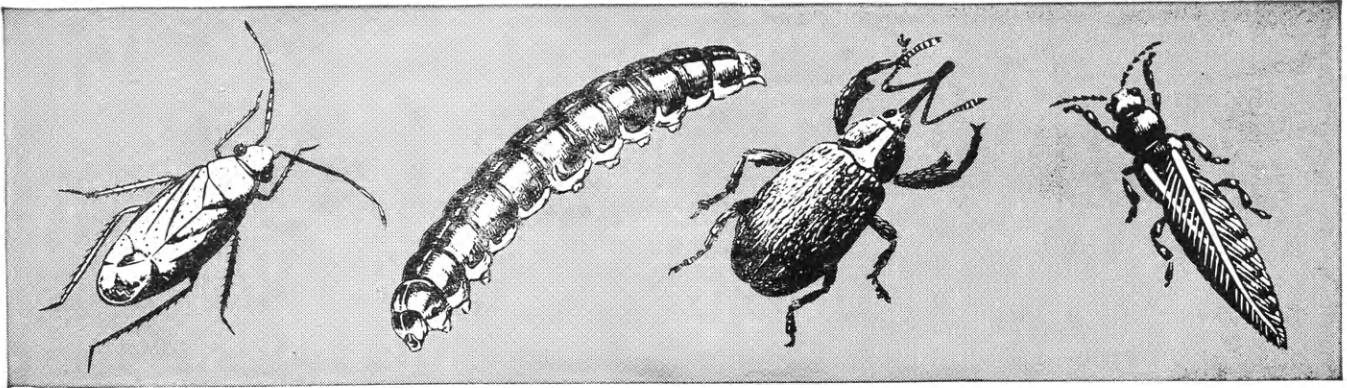


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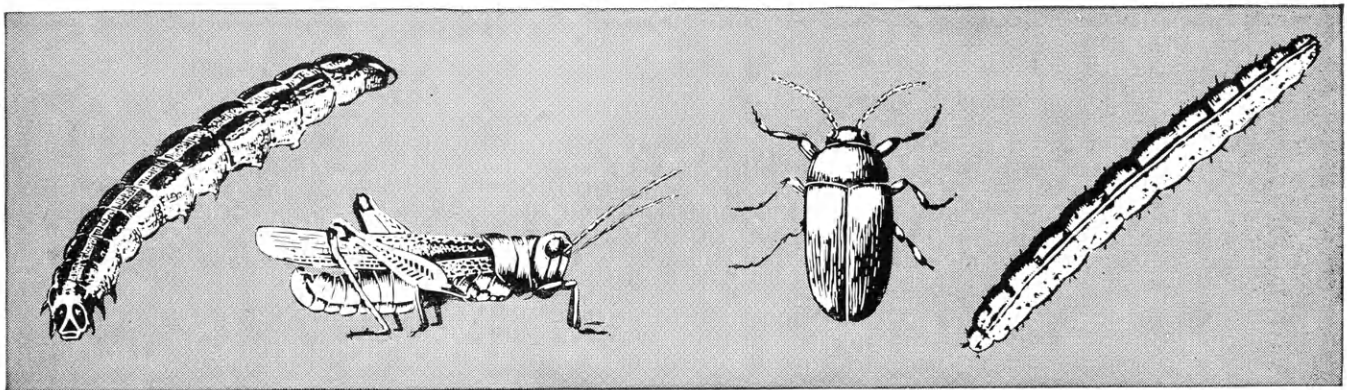


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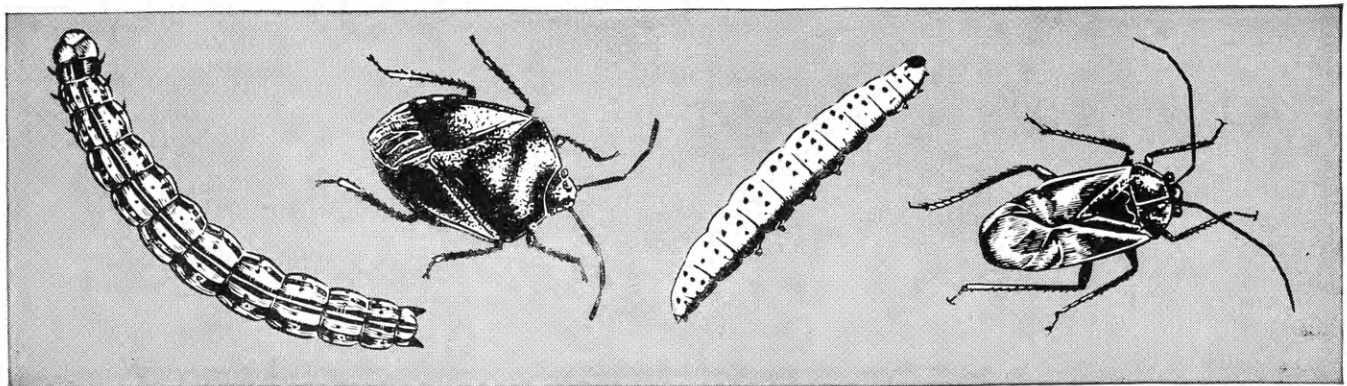
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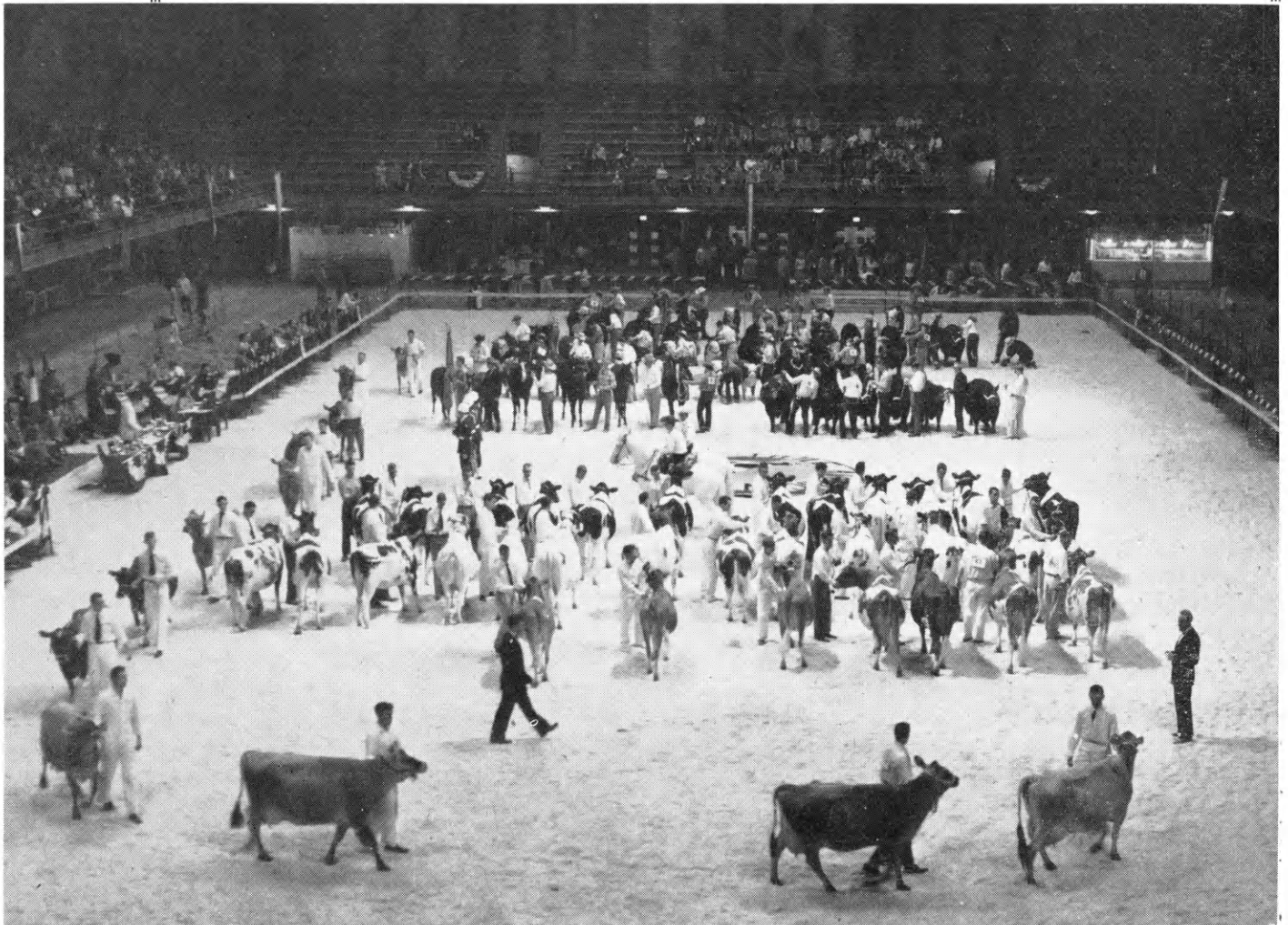
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The 1956

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The Smith sisters, rope-trick artists from Colorado A&M college.
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175 Student Entries

Saturday, APRIL 7, 7:00 p.m.

Ahearn Field House Reserved seats, \$1.00. General admission, 75c.

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Sponsored by the Block & Bridle Club and Dairy Club.

Chit Chat

By Clyde W. Mullen, Assistant Dean

The time has come for students to take a good look at their choice of electives and their general program of studies for their junior and senior years.

Are our students selecting courses and groups of courses that will meet the demands of employers in these days when so large a proportion of our graduates seek off-farm employment immediately after graduation, even though they may return to farms and ranches of Kansas later in their careers?

Those who can definitely plan to take up farming and food production immediately after graduation have no difficulty in selecting courses and programs that will prepare them for management and operational responsibilities. Practical courses and quasi-technical courses that go with modern agricultural production are readily recognized and selected by our advisers and their advisees as a part of their elective programs.

These students go out well trained as agriculturists, and in the past have fitted into many semi-technical positions other than farming. They have also made good extension men. But they are not high-level technicians.

Our departments have in a few instances anticipated this situation and have set up special technical curriculums that do bring their majors to a high level of education in basic science and mathematics. So far, students have been more or less hand-picked for these more technical curriculums. When evidence of high ability is discovered, certain students have been invited to consider a change of curriculum to the more technical studies.

However, not all students of ability have been diverted to a technical curriculum. In fact, it isn't necessary actually to pursue a technical curricu-

lum in order to project a technical program.

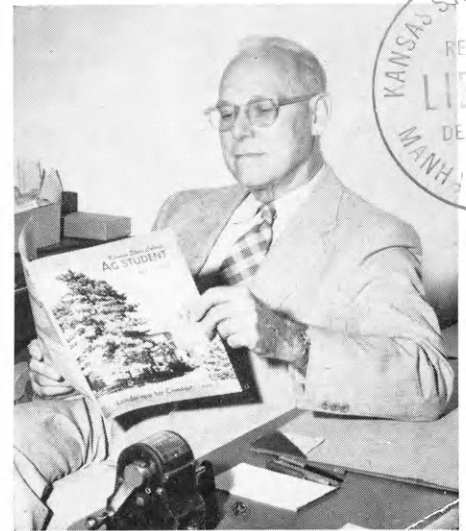
This is the time of year when sophomores are going to their department heads to decide on their electives, and to project their programs for the next two years. This is the opportunity for them to consider the advisability of working into their elective programs more mathematics, more physics, more chemistry, more statistical courses, more of the biological sciences, and for many students, more courses related to technical economics and marketing.

Many of our lads will do well to inspect the placement bulletin boards and to note the preponderance of opportunities that seem to be related to sales, marketing, distribution and public relations. If we want these jobs, and if we are to take advantage of these opportunities, the time to begin training for these openings is during the junior and senior years.

We can set up three general targets toward which we can direct our training:

- (1) The field of production and general management, including extension;
 - (2) Sales, promotion, marketing and public relations;
 - (3) High-level technical training, and basic courses for graduate work.
- Scan those electives well, lads.

Again this spring we will go through three weeks of pre-scheduling—not pre-enrollment. No cards will be pulled. The consensus of students seems to be that the 30 minutes or so spent in pre-advisement and pre-scheduling are well spent. It saves time on the enrollment floor. Better decisions can be made as to the succession of courses. This pre-advisement is good training for both students and advisers in anticipation



Dean Mullen

of actual pre-enrollment which will begin with the second semester, 1956-57.

All new freshmen and new transfer students will be pre-enrolled this summer and their cards pulled for the fall semester. Then for our next spring semester, all students will be enrolled and their cards pulled.

But, take warning, lads, it isn't going to be the cake-eating procedure some people have pictured. When classes begin to close, the later enrollees are going to do more leg-work than anyone now anticipates. Some of us will be longing for the good old days when we had the benefit of pre-advisement and three days of enrollment on the Nichols assignment floor. When classes begin to close, no enrollment procedure seems good.

These final lines of commendation to the Ag Education Club for its initiative in putting on a wonderfully successful farm mechanics contest. Persons close to the situation report that it was in 1948 that this idea first was batted around.

It took Dick Baker and a group of other current leaders in the club to set the date, outline the contests, round up the prizes, get names on the dotted line, and man-handle a myriad of other details that go with any project of this sort. Seventy-eight students went at it with hammer and tongs on Saturday, February 18, and Professors Bradley and Jacobs have marked the event down as a success. Everyone hopes this is the beginning of a long sequence of farm mechanics contests here at Kansas State College.

TAXES ARE INEVITABLE

Should They Be Increased?

by Gary Neilan

THERE is an old saying that death and taxes are inevitable. Perhaps this may soon be changed to death and "rising taxes." As most Kansans fully realize, taxes have been on the increase in recent years—and they seem certain to continue the rising trend.

It appears that in the next fiscal year, an additional ten million dollars will be needed to meet expenditures, Dr. W. H. Pine, of Kansas State college agricultural economics department, said.

Why is so much needed for this fund for public services? Why the increase? During World War II, Kansas accumulated reserves. Revenues increased particularly from income and sales taxes. Expenditures were limited because labor and material were required by the military. Following the war, increased demand for public services could be met partly from reserves.

Reserves Are Spent

Now reserves have been spent. Additional revenue is needed, and increasing population means more schools, roads, streets, regulation, and other public services. Public services such as social welfare, recreational facilities, and development of resources have been provided which will require additional funds.

Changes in sources of tax revenues for Kansas since 1939 give tax trends in recent years. In 1939, property tax made up 13 percent of the total tax revenue. Individual income tax comprised 3.5 percent of the total; sales and gross receipts taxes 45.7 percent; licenses and privilege tax 18 percent; while taxes on gifts and deaths amounted to 2.3 percent.

In 1953, the percent of property tax in the total fund was reduced to 5 percent. Income tax had risen from 3.5 percent to 8 percent of the total. The percent of taxes from sales and gross receipts had risen from 45.7 percent to 62 percent.

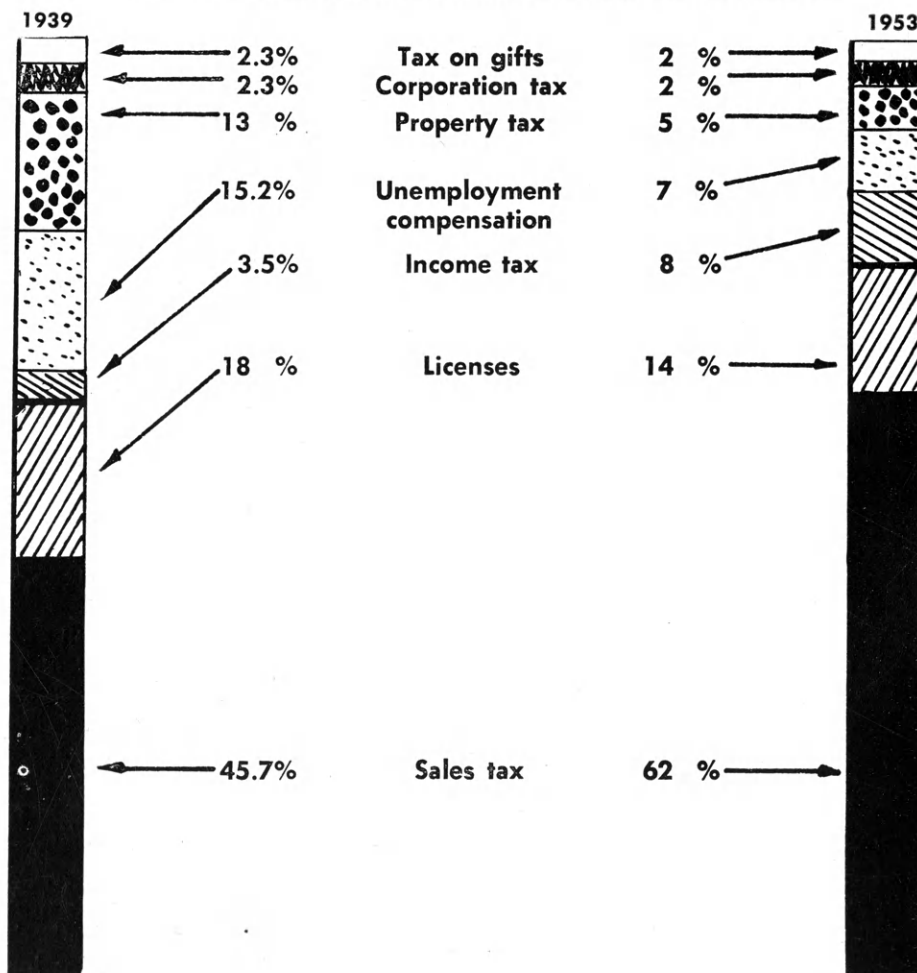
Another decrease was in license and privilege taxes, which dropped from 18 percent to 14 percent in 1953. The proportion of corporation income taxes was approximately the same,

dropping only one-tenth percent. Taxes on gifts and deaths showed a slight decrease.

Compared with neighboring states, Kansas receives a larger percent of the total tax revenue from sales and gross receipts taxes. In the percent received from licenses, Missouri, Oklahoma, and Iowa were higher than Kansas. Nebraska and Colorado were lower.

While Kansas received individual

Chart shows the comparisons between 1939 and 1953 Kansas taxes.



income taxes which made up 8 percent of the total state revenue, Iowa, Colorado, and Missouri were higher. Oklahoma was considerably lower, and Nebraska does not add to its state fund with individual income taxes.

Kansas ranked third among its neighbors in the amount of corporation income taxes in the state total. In the taxing of property, 35 percent of the total fund in Nebraska came from property taxes, compared with 5 percent in Kansas. Iowa, Missouri, and Oklahoma were below Kansas. Oklahoma was the only state whose total fund included a large percent from severance taxes.

Which Taxes To Raise

The question in Kansas is which of these taxes to increase. If tax rates should be kept fairly equal to those of neighboring states, an increase in the sales tax probably wouldn't be appropriate.

Income tax rates in Kansas are lower than in nearby states, and might be a possible source of increased state revenue. A severance tax and increased property taxes are other likely possibilities.

How would various tax increases affect Kansas farmers? No doubt, an increase in sales tax would have the least effect on farmers. A larger tax on property would be felt most. Severance tax would affect a certain group, but not the entire farm population. With present low incomes on farms, an increase in income tax would be of only moderate concern, according to Dr. Pine.

While any rise in taxes might affect Kansas farmers, an equalization of property taxes now under way should benefit many Kansans, Dr. Pine said. At present rural property is assessed relatively higher than urban property.

In previous years, Pine said, there has been a lack of uniformity in property assessment. Average assessment of real estate in 1954 was only 23 percent of the sale value for the entire state. Also, assessed values in relation to sale values varied from less than 5 percent to more than 120 percent. The average assessment ratio varied from 13 percent in Johnson county to 52 percent in Jackson county.

Property owners in Jackson county will pay on an average four times as much state taxes on property as those in Johnson county, based on the true value of property. The assessment

program going into effect January 1, 1956, should result in more equitable assessments of property, according to Dr. Pine.

The wife of a certain Agriculture teacher bought a parrot only to learn that it cursed everytime it said anything. She put up with it as long as she could, but finally one day she lost her patience. "If I ever hear you curse again, I'll wring your neck," she said.

A few minutes later, she casually remarked it was a fine day. Whereupon the parrot said, "It's a hell of a fine day today!" The lady immediately took the parrot by the head and spun him around in the air 'til he was almost dead.

"Now then," she said, "it's a fine day today, isn't it?"

The parrot sputtered, "Fine day? Where in the hell were you during the tornado?"

"Son, after four years at college you're nothing but a drunk, a loafer and a darn nuisance. I can't think of one good thing it's done."

The son was silent for a moment; then suddenly his eyes brightened.

"Well," he said, "it's cured Ma of bragging about me."

Certified Seed

will be in demand for spring planting by progressive Kansas farmers who want to know what they sow. The following certified seeds will be available:

Alfalfa

Buffalo

Barley (spring)

Beecher
Custer
Otis

Corn-Hybrid

K1585
K1639
K1784
K1830
K1859
K2234
AES 903W
U.S. 13

Grasses

Achenbach Smooth Brome
Blackwell Switchgrass
El Reno Sideoats Grama

Oats

Andrew
Cherokee
Kanota
Mo. 0-205
Nemaha

Sorghum-forage

Atlas
Axtell
Early Sumac
Ellis
Kansas Orange
Norkan

Sorghum-grain

Coes
Martin
Midland
Plainsman
Westland

Soybeans

Clark
Hong Kong
Perry
S-100
Wabash

Sudangrass

Greenleaf
Wheeler

Sweetclover

Madrid

The Kansas Crop Improvement Association

MANHATTAN, KANSAS

Visitors at

FARM AND HOME WEEK

Get Latest Research Info

by Ray Lippe

VISITORS at the 88th annual Farm and Home week heard authorities discuss everything from bees to bulls. The day session, which ran from February 6 to 9, informed farm families of latest research at the College.

In an address to Kansas farmers, President James A. McCain said

farmers should rally as never before to the support of agricultural research and extension.

The future of these programs is in serious jeopardy, due in part to inadequate understanding of their importance to agriculture and in part to indiscriminate efforts to hold down or reduce taxes, he said.

"Farm income is the life blood of the state's economy. Experiment station research is our most effective means for increasing farm income. Nothing, therefore, could more seriously threaten our state's prosperity than failure to provide adequate support for agricultural research and for extension which serves as the connecting link between the experiment station and the farm," McCain said.

Those attending the poultry meetings heard Thomas Avery, head of the poultry husbandry department, say that poultry breeders at Kansas State college will, in the immediate future, place more emphasis on studies of high egg production.

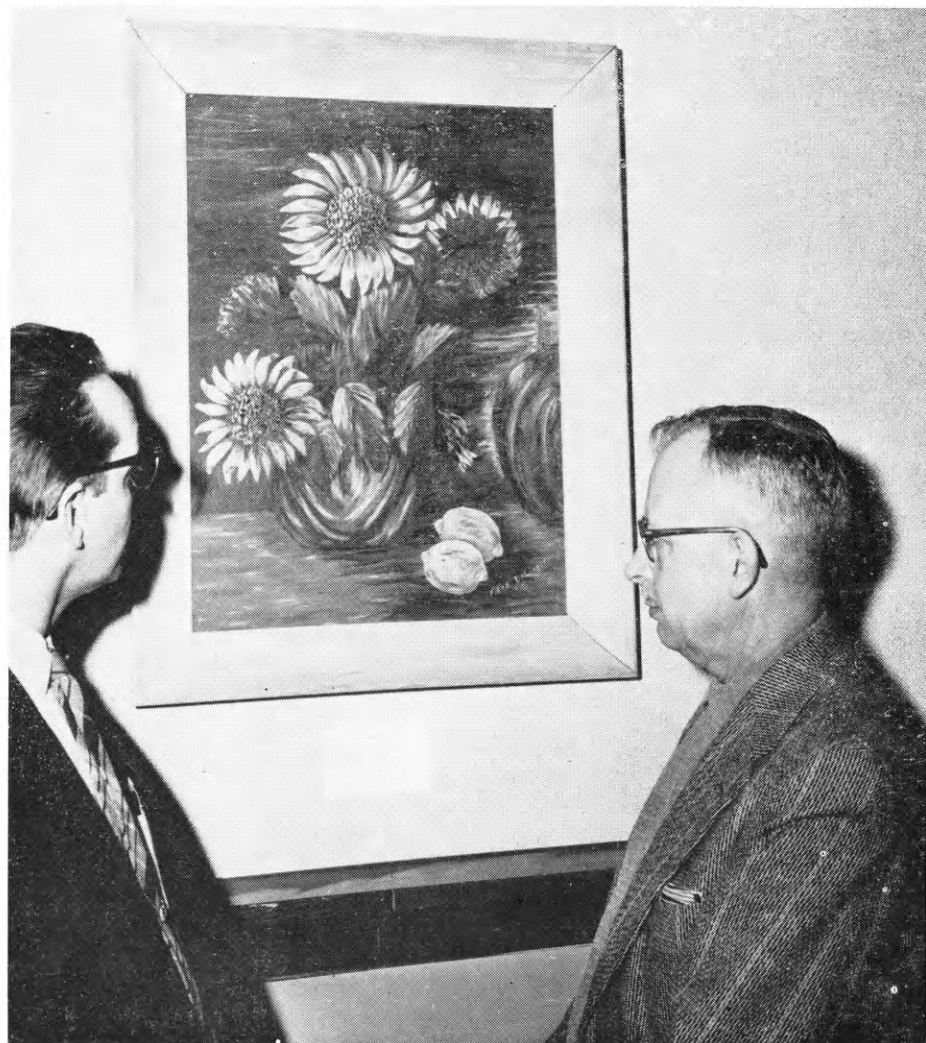
A dozen prominent breeders from coast to coast have been asked to supply eggs from their highest producing birds of pure strains for hatching in the 1956 season. Both Leghorn and heavy breeds are to be used. By testing strains under comparable conditions, K-State geneticists believe they will be able to get superior egg-producing stock.

"Farmers who have switched from dry land farming to irrigation will have to revise their thinking on fertilizer to produce the kind of corn yields that make irrigation pay," said A. L. Clapp, K-State agronomist.

Adjust Fertilizer Program

Dryland farmers may have difficulty in adjusting fertilizer programs to produce 100 to 125 bushels of corn an acre. Tests show that 185 pounds of nitrogen, 75 pounds of available phosphate, and 150 pounds of potash are required to produce an acre of 125-bushel corn, he said.

Carl Tjerandsen and John Helm, Jr., admire an oil painting, "Sunflowers," by Faye Bohlinger. This is one of the many paintings exhibited by Kansas' amateur artists.



He urged farmers to have soils analyzed and anticipated yields considered before deciding on what fertilizer to buy.

Sprinkler irrigation is becoming popular in many areas, D. W. Robertson, Colorado A&M agronomist, said. It is adapted to rolling land where surface irrigation is impractical. Sprinkler irrigation is also used on very sandy soils having extremely high intake rates.

Dairy organizations with the aid of artificial insemination seem to be the key to having more purebred dairy herds, Karl Musser, executive director-treasurer of the American Guernsey Cattle club, told dairymen.

Musser said 80 to 90 percent of the cattle in dairy herd improvement associations are being mated to purebred sires. Unorganized dairy industries have made little improvement.

Specialized Farming

Specialized farming will replace diversified farming, Musser predicted. Today's farmer must double produc-

tion to meet increased expenses, he said.

Dr. Richard Morse, professor of household economics, told home economics visitors Americans too often take for granted our nation's greatest source of strength, a sound family and home.

Children More Important than Pigs

Family life is so much a part of us that we accept it too casually; we studied pigs long before we gave as much serious study to children, Morse said.

Morse listed five basic functions of a family: perpetuation of the race, economic support of children, a satisfying home life, preparation of children for adult self-discipline, and making the family serve as a buffer for each individual.

Other departments featured during Farm and Home week included agricultural engineering, beekeeping, rural art, public affairs, farm management, agricultural economics, and livestock raising.

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Eating Meat Is Easy;

by Judie Ross

ALTHOUGH meat is a common food, a cook can ruin it. That's the reason a gal who knows how to select, prepare, and serve a good meat dish can weasel into a man's heart through his stomach.

Home economists say the three rules to get the most from meat are: select it wisely, care for it properly, and cook it correctly. Maybe that's the reason they are home economists instead of homemakers. Any smart gal knows that the most to get from any dish, meat or otherwise, is a husband.

When selecting meat, a home economist remembers that it offers more variety and price range than almost

any other food. A homemaker who knows the possibilities of meat can serve a variety of dishes.

Pork is a favorite in many homes. Home economists say the most economical purchase of ham is either a whole ham, for families of six or more, or a half ham, for smaller groups.

A butcher can cut a ham into three parts, if a homemaker desires. These are butt, thick center slice, and short shank. When a housewife buys a half ham, she gets more meat and less bone in the butt half. She knows the shank half has sizeable slices, sells for one or two cents a pound less, and is easy to carve.

Bacon is low in price and high in quality. It is nutritious and has appealing flavor. A homemaker can buy bacon in either slabs, slices, or small end squares. Economists say slabs and slices are generally bought by consumer preference according to how a family likes it served. Slabs are economical and are good boiled or for seasoning other foods.

Lamb Often Neglected

Lamb is frequently neglected. It has been only in the last few years that lamb has been universally distributed and universally available at all seasons. Now a homemaker does not have to wait for spring to buy lamb at meat counters.

Home economists say: (1) Lowest lamb prices are during seasons of greatest supply, late summer and fall. (2) Branded lamb is a better choice in regard to quality. (3) Little mutton is sold, so consumers needn't worry about buying old lamb. (4) New methods of dressing and chilling used by packers have improved mutton flavor.

Of the various cuts, a homemaker knows leg o' lamb makes a fine roast. A shoulder section is an economical buy. Loin and rib chops are favored by some families. Loin chops have more meat than ribs but they are more expensive. English lamb chops are double loin chops which include part of the kidney.

A crown roast is a choice cut. It is made from two sides of ribs turned inside out to form a circle. Budget cuts include breast, neck, shanks, and ground lamb shoulder.

Steaks have become a symbol of American meats. When a homemaker buys a good steak she expects it to be tender, juicy, and well-flavored. If a

Every good homemaker knows the way to a man's heart. Mrs. John Burgess proves the point when she serves Mr. Burgess a juicy steak prepared in the approved manner.



Preparing It Is An Art

Smart Gals Know a Well-turned Steak Is As Important As a Well-turned Ankle

cut shows marbling she knows the fat will cook in with the lean and add flavor. She picks steaks that are at least one inch thick.

Club steaks serve a single person nicely. Porterhouse steaks are a wise buy for two or three people. T-bone is a porterhouse cut. Sirloins are larger steaks with less bone and more meat. They are good buys for large groups.

Rump steaks are sirloin steaks carved from part of the sirloin nearest the rump. Fillet mignon is steak cut from the tenderloin. Since these are tender and mild-flavored steaks, they are the most expensive.

Veal is mild-flavored, tender meat of a calf. Some people believe it lacks flavor. However, a good cook with correct seasoning can perk up the flavor. A smart homemaker chooses veal that is pinkish-red, with creamy-colored fat and fine-textured lean, and that has pinkish bones when cut.

Economical Buys

Economical buys include shoulder roast, steak, breast, shank, heart, kidneys, and brains. Ground meats are frequently served. Economists say ground ham cut from the shank section is cheaper and has equal flavor of center cuts. Ground veal cut from the shoulder or breast is cheaper than leg cuts. A pound of ground meat serves four people.

Liver, high in nutritional value, should be served once a week. Type of liver bought depends upon personal taste. Calf and lamb liver are mild and tender. Pork liver is stronger-flavored. Calf liver is more expensive because it is in greater demand.

For something new to serve, the homemaker suggests kidneys, sweet-

bread, tongue, brains, and heart. Aside from their tasty flavor, they are full of minerals and vitamins. They rank second to liver in nutritional value.

Another skill of a homemaker is the art of caring for meat properly. She unwraps fresh meat as soon as she gets home from the market, and stores it uncovered or loosely covered in the coldest part of the refrigerator. Cooked meat is closely covered and

stored in the coldest part of the refrigerator.

She puts cured meat and canned hams under refrigeration at zero degrees F. or lower.

A homemaker avoids keeping fresh ground meat longer than one or two days without cooking. Grinding divides meat into small pieces, exposes it to action of bacteria, and causes it to spoil quicker than other fresh meat. If it must be kept longer, cook-

The homemaker may buy cuts of meat in any size desired. Modern methods of cutting and packaging meats make it easy for the housewife to shop for any size family.



ing or freezing will help retain flavor. Sweetbreads are perishable, so she pre-cooks them soon after purchasing.

There are various methods of preparing meat to increase palatability. Quality of beef and tenderness of cuts are two factors which determine cooking methods used in preparation.

Tender cuts of beef may be roasted, broiled, or panbroiled. They may be served rare, medium, or well-done, according to personal preference. Less tender cuts may be cooked by braising or in liquid until well-done. A good homemaker cooks all meat, regardless of method, at a low or moderate temperature.

Cooking Makes Flavor

A cook can bring out the flavor in veal, which lacks fat, by placing a few slices of bacon, salt pork, or other fat over the meat when preparing it for cooking.

For the same reason, veal steaks, chops, and patties are best cooked either by braising or by panfrying, since, in these two methods, fat is added to the frying pan before cooking. Home economists say veal should be cooked until well-done, or 170 degrees F. internal temperature.

Pork cooked well-done will be tender and have appetite appeal. Large fresh pork cuts, including loin, shoulder, and ham, are best if roasted at 350 degrees F. oven temperature to 185 degrees F. internal temperature. Smoked pork cuts such as ham, shoulder, and butt may be roasted at 300 degrees F. to an internal temperature of 160 degrees F.

Pork chops, steaks, patties, and frenched tenderloin are best cooked by braising to assure meat that is well-done, tender, and juicy. Smoked ham slices, bacon, and Canadian-style bacon may be broiled, panbroiled or panfried.

Lamb may be roasted, as beef and veal, at 300 degrees F. and served medium or well-done. A thin outer covering, the fell, should not be removed from the leg, since it cooks in less time and holds its shape better. The fell should be removed from steaks and chops. Lamb chops, steaks, and patties may be broiled, panbroiled, or panfried. Lamb should be served either hot or cold, never lukewarm.

Serving meat dishes attractively is

an important role of a good cook. To add flavor to lamb, a homemaker may tuck a clove of garlic into the joint of a leg of lamb. This should be removed before serving. Mint leaves with lamb make an attractive garnish and a pleasant flavor.

Lamb makes a tasty stew because its flavor blends with vegetables. Lamb and new peas are considered a perfect combination. Some homemakers serve lamb with green beans, spinach, cauliflower, Brussels sprouts, or broccoli. Fruit such as pears, pineapple, and peaches is a treat when browned in a pan with roast lamb.

Ham is delicious when served with fruit or spiced glaze-topping. Its flavor goes well with vegetables, too. Ham is an attractive dish when carefully garnished. Sausage served with fruit such as bananas, apples, or peaches is appealing.

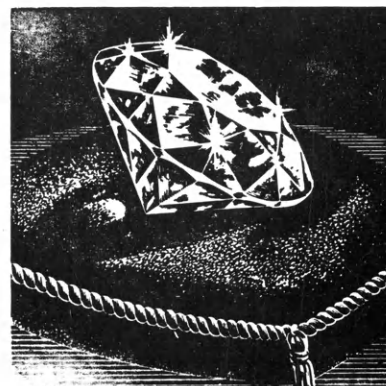
Many homemakers clip meat recipes from magazines and file them. When company comes or they want something new or different to serve the family, they can thumb through the file and come up with an idea for the main dish.

DIAMONDS

WATCHES

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Kansas Farmer Turns Wasteland to Profitable Brick Plant

by Gary Yeakley

SOMETIMES wasteland or a small portion of a farm may be converted into extra income without destroying rich or productive soil. Such a situation exists on Ray Smith's farm near Hoisington. It is estimated that the hills of clay on his farm will produce two million bricks a month for 100 years.

Smith operates a brick plant on his 320-acre farm which furnishes employment for 55 workers. Monthly income from the plant is \$60,000 to \$70,000, Smith said. Manufacturing capacity has been boosted to two million bricks monthly, since turning out the first brick January 1, 1955.

Started 28 Years Ago

Organization of the plant started 28 years ago when Smith's father had a shaft dug in a pasture hill to test clay samples. Laboratory results showed the clay was of good brick-

making quality. So much time and money were required for a brick plant that the clay was almost forgotten.

In March 1954, Smith reconsidered the idea of a brick plant. He contacted experts on brick production, and plans for the company were formed. The next step was sale of \$500,000 in stock, followed by incorporation. Stock was sold to 280 people from Hoisington and surrounding community.

Four months after starting construction, four round down-draft kilns were in operation with a capacity of one million bricks a month. In September 1955, a tunnel kiln-dryer was completed, making possible production of an additional million bricks a month.

The tunnel kiln-dryer, capable of turning out 2,000 finished bricks every hour and 15 minutes, is the first of its kind in Kansas. This kiln combines baking and drying operations

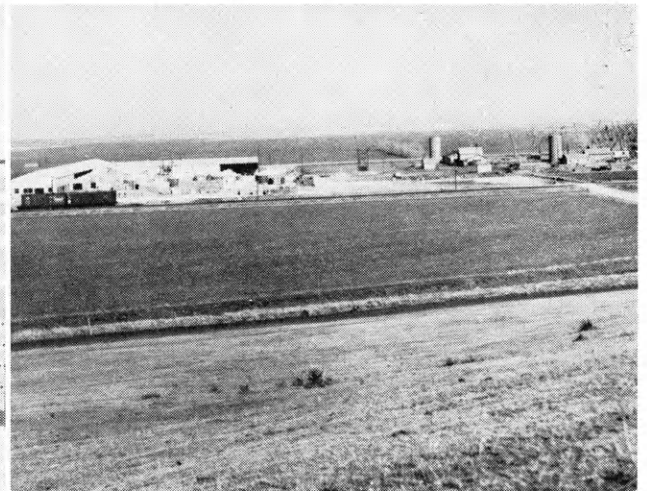
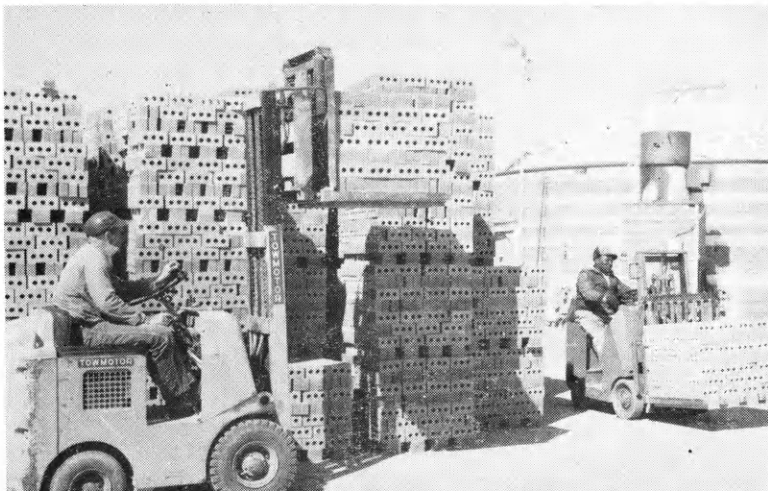
to cut production time and to give the tunnel kiln about one-fourth greater capacity than the round kiln.

A minimum of hand labor is used in the plant. Bricks are loaded on small flatcars that run on tracks. Each car holds 400 bricks. The cars are loaded with "green" bricks and are handled only once more, when finished bricks are unloaded by fork-lift trucks.

Clay used is of two colors, light buff and deep red. By blending the two, bricks of many colors may be produced. Artesian wells located on the land supply water for the plant.

Use of idle raw material, local investments, and planning have contributed toward making a more prosperous community. The company draws capital from cities as far away as Chicago and Minneapolis, Minn., according to Smith, who is general manager and president. The company boasts of being the newest and most modern brick plant in Kansas.

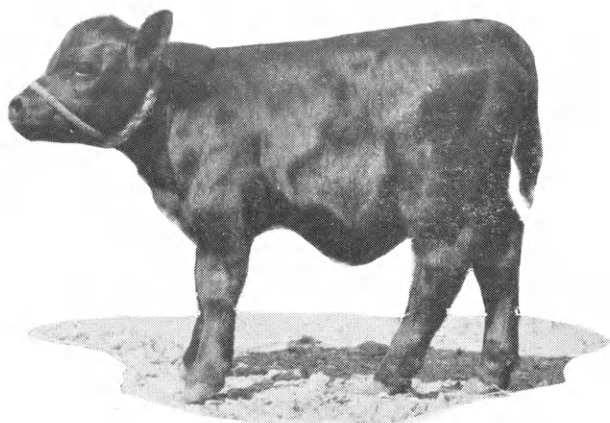
Bricks are handled by fork lifts to save labor. The plant takes up only a small corner of the farm. Bricks are made from clay that would not be very productive if planted to crops. The clay hills are expected to produce two million bricks a month for 100 years.



DWARFISM—

A Problem of Cattlemen

by Arnold Appleby



HEREDITARY dwarfism in beef cattle has recently been a topic of discussion, investigation and experimentation. There are several types of hereditary dwarfism but most are so rare they are of little economic importance.

“Snorter,” a recessive type of dwarfism, has become economically important in recent years. These dwarfs are usually easily recognized. Most of them have short, broad heads, a bulging forehead, prominent eyes, protruding lower jaws, stunted growth, heavy breathing, and are potbellied as a result of chronic bloat. These animals show little muscular coordination and move with staggering gait.

Dwarfism is serious because it occurs in several beef breeds and has been increasing in recent years.

Carrier Animals Selected

Theoretically, due to the recessive nature of the dwarfism gene, dwarfism should eventually disappear if all dwarf calves were destroyed. Since it has been increasing, apparently breeders have unknowingly preferred carrier animals when selecting breeding stock.

This has not been proven directly, and cleaning up a herd by recognizing carriers does not seem feasible as yet. Efforts to clean up dwarfism by disposing of carriers may lead to loss of valuable breeding animals which are non-carriers but are thought to resemble carriers.

Dwarfism is of economic importance because dwarfs grow slowly and die prematurely. Animals permitted to live are susceptible to bloat and never develop into good meat animals.

Dwarf calves usually are thick and blocky at birth. Many appear to be of

type and conformation desired for show stock. However, all of these individuals fail to develop normally and soon show signs of dwarfism.

Fertility of Dwarfs

There has been some question concerning fertility of dwarfs. Many never live to the age of puberty, but dwarfs have been mated together and produced young.

Inherited dwarfism is caused by a single recessive gene, or hereditary factor. To be a dwarf, a calf must have two dwarf genes, one of which is received from the sire and the other from the dam.

Cattle that carry one normal gene and one dwarf gene (called carriers) are normal in appearance but will transmit the dwarf gene to about one-half of their calves. Animals that have two normal genes are dwarf-free and can never transmit dwarfism.

If dwarf-free cattle are mated with other dwarf-free cattle, all calves will be dwarf-free. If a carrier bull or cow is mated with dwarf-free cattle, one-half of the calves will be dwarf-free and one-half will be carriers.

When a carrier bull is mated with carrier cows, one-fourth of the calves will be dwarf-free, one-half will be carriers, and one-fourth will be dwarfs. These figures are variable and merely represent an average.

Whenever a dwarf is born, it means that both the sire and dam carried the dwarf gene. Only if there is doubt that the reputed sire was a carrier, or that the calf really was a dwarf, is there any valid reason for waiting until a bull has sired two dwarf calves before being certain that he is a carrier.

A method of eradicating dwarfism has yet to be developed. The perfect

way to defeat dwarfism is to weed out and destroy all dwarfs and carriers of dwarf genes. Dwarfs can be identified but carriers are normal in appearance and require special methods of identification.

Identifying Dwarfs

One method of carrier identification being studied is use of a profilometer. This device was developed by Dr. Paul Gregory of the University of California. It detects a small bulge, supposedly in the mid-forehead bones of carriers. Many investigators feel that this instrument is promising but additional research is necessary to establish its reliability.

Another identification method involves X-raying the vertebrae in the lumbar or loin region. The vertebrae of dwarf calves appear to be compressed. It is believed that carrier cattle may have a similar compression, but to a lesser degree. By using X-rays, carriers may be detected. More experimental work on this phase is being done.

Other physiological methods of identification that have been investigated are blood tests, hormone studies, and studies of fluid surrounding the brain and spinal cord. Information pertaining to these methods is inconclusive at present.

Progeny testing is the only known reliable means of checking bulls for the dwarfism gene. By mating a questionable bull to 15 known carrier cows to produce a total of 15 calves, all of which are normal, a breeder is 99 percent certain that the bull is dwarf-free.

There are several ways in which every beef breeder can help combat dwarfism. Pedigrees should be considered and breeding stock closely re-

lated to dwarfs should be avoided. Being closely related to a dwarf may indicate that the animal is likely a carrier.

Disposal of progeny from a carrier parent is a "must," Walter Smith, animal husbandry professor at Kansas State college, said. Carrier cows may be retained for progeny testing programs, but carrier bulls should be disposed of immediately. Cattlemen

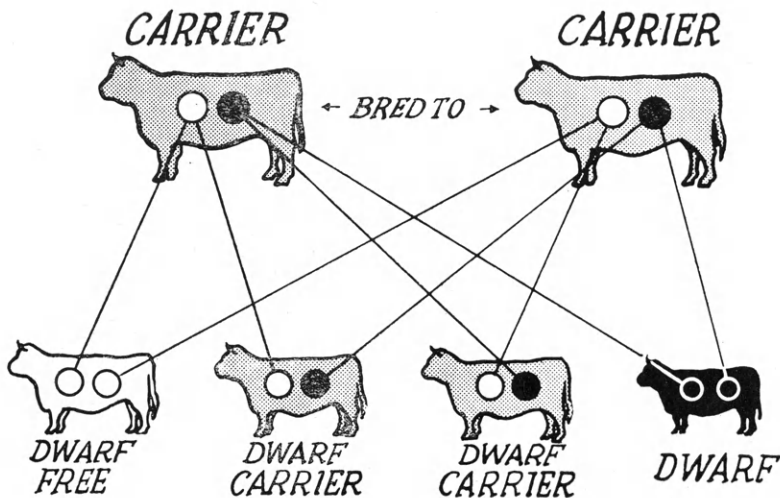
should cooperate with research men in an endeavor to find ways of identifying carriers.

Dwarfism is a problem that has been costly to the beef industry. Without some means of checking it, it may go on being costly. Through research, good management, and co-operation, there is a chance that dwarfism can be controlled, Smith said.

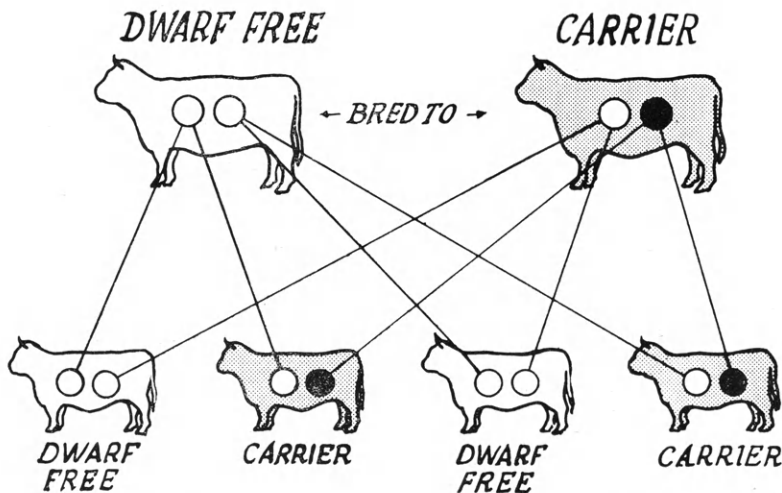


K I T E' S

RESULTS OF MATING DWARF CARRIERS

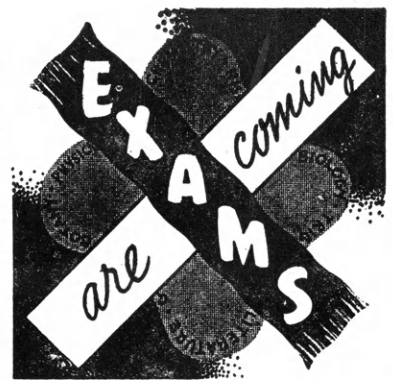


RESULTS OF MATING DWARF FREE TO DWARF CARRIER



KEY

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Sharp Aggies Join **ALPHA ZETA** Agricultural Honorary Fraternity

by *Arnold Appleby*

EACH SEMESTER, several agriculture and veterinary medicine students appear on the campus dressed in blue jeans or coveralls, wearing a red bandana and a sign on their back which reads "Alpha Zeta," and carrying a paddle, a tool, and a box of treats.

Invariably someone expresses sympathy toward these outlandishly dressed characters, feeling that they are being mistreated. However, if anyone would take time to question some of these men, he would find that they do not feel sorrowful at all; in fact, they feel lucky and proud.

These men have been selected as members of Alpha Zeta, national honorary agricultural fraternity, and are undergoing informal initiation.

One of the duties of an initiate is to learn something about Alpha Zeta, its background, requirements, and activities.

Founded in 1897

Alpha Zeta fraternity was founded at Ohio State university November 4, 1897, by Charles W. Burkett and John F. Cunningham.

Number of chapters had increased steadily until April 14, 1951, when a Texas chapter was installed, bringing the total to 49 chapters in 46 states. California has three chapters and Texas two.

The Kansas chapter, nineteenth to be installed, was established on the K-State campus May 14, 1909.

Object of the Kansas chapter, as stated in the constitution, is "to raise the general standard of its members, and to aid them in any worthy work in which they may be interested, not only in college, but also in after life. One of the chief duties of members of this chapter shall be to censure all unworthy actions of their brothers, and to commend all worthy deeds."

Must Be Male Student

Several requirements must be met before a man can become a member. He must be a male student in the School of Agriculture or School of Veterinary Medicine, have completed at least three semesters of college, be among the top two-fifths of his class in scholastic standing, be of good character, and show qualities of leadership. He also must receive approval of 75 percent of the chapter's active members.

Among activities of Alpha Zeta at K-State is a guide service provided each year during the state FFA contest. Members usher at the Little American Royal, help with the Formula Feed conference, and maintain the ag reading room in Waters hall.

Officers of Alpha Zeta for 1955 and 1956 are: Ray Russell, Mesa, Ariz., president; Henry Burmeister, Holyrood, vice-president; Walt Martin, Opolis, secretary; Ernest Henderson, Almena, treasurer; Lloyd Christie, Rantoul, historian; and Henry Black, Stockton, sergeant-at-arms.

Initiation Banquet

After initiates have become acquainted with the fraternity, they are invited to a banquet, usually held in Thompson hall. After eating a

Banquet turns out to be a huge success as members at the speaker's table eat heartily.





Happy initiates pose proudly before undergoing formal initiation ceremonies. Included are: first row—Eldon Miksch, Tom Kirkemide; second row—Francis Reichart, Harry Kaper, Marvin Samuelson, Roy Henry; third row—Charles Keller, Keith Van Steenberg, James Butler; fourth row—George Atkeson, John Ricklefs, Jim Boyd, Estel Schultis, Don Griffith.

meal and hearing a speaker, pledges undergo formal initiation to become bona-fide members of Alpha Zeta.

These men take pride in belonging to an organization that stands high in leadership and scholastic qualities.

Fraternity founders said, "Alpha Zeta was established neither as an honorary society nor as a social fraternity, but as a professional frater-

nity in whose membership shall be combined the qualities of high scholarship, fine fellowship, and sound character.

"These are the vital qualities of real leadership and it was the actual and potential leadership in the field of agriculture for which the fraternity was established to encourage and develop."

He: Whisper those three little words that will make me walk on air.
She: Go hang yourself.

A smart girl is one who knows how to play golf, scrabble, piano, and dumb.

"Never get excited," orated the minister. "Always control yourself

and your language. Now take for example this fly that just landed on my ear. Do I shout and swear? No indeed. I calmly reach up and gently —DAMN! IT'S A WASP."

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Sheep Shearing Schools

To Be March 26-31

Young men interested in learning sheep shearing skill will have an opportunity during the last week of March, according to Verl E. McAdams, state extension service animal husbandry specialist. Two three-day schools will be held. The first will be March 26 to 28 at Manhattan, and the second, March 29 to 31 at Ness City.

Each participant may shear up to 20 head of sheep under supervision of Ed O. Warner, a professional shearer of Sunbeam corporation. In addition to shearing, there will be sessions on tool sharpening, care of equipment, wool marketing, and preparation of wool for market. Kansas lamb production and the feeder lamb program will be discussed.

No entry fee will be charged. Those attending may take bedding and stay at the shearing barn, or make reservations at a motel or hotel. Participants should take work clothes and shearing equipment.

FFA or 4H boys planning to enter the state sheep shearing contest could receive valuable training at these schools, Mr. McAdams said.

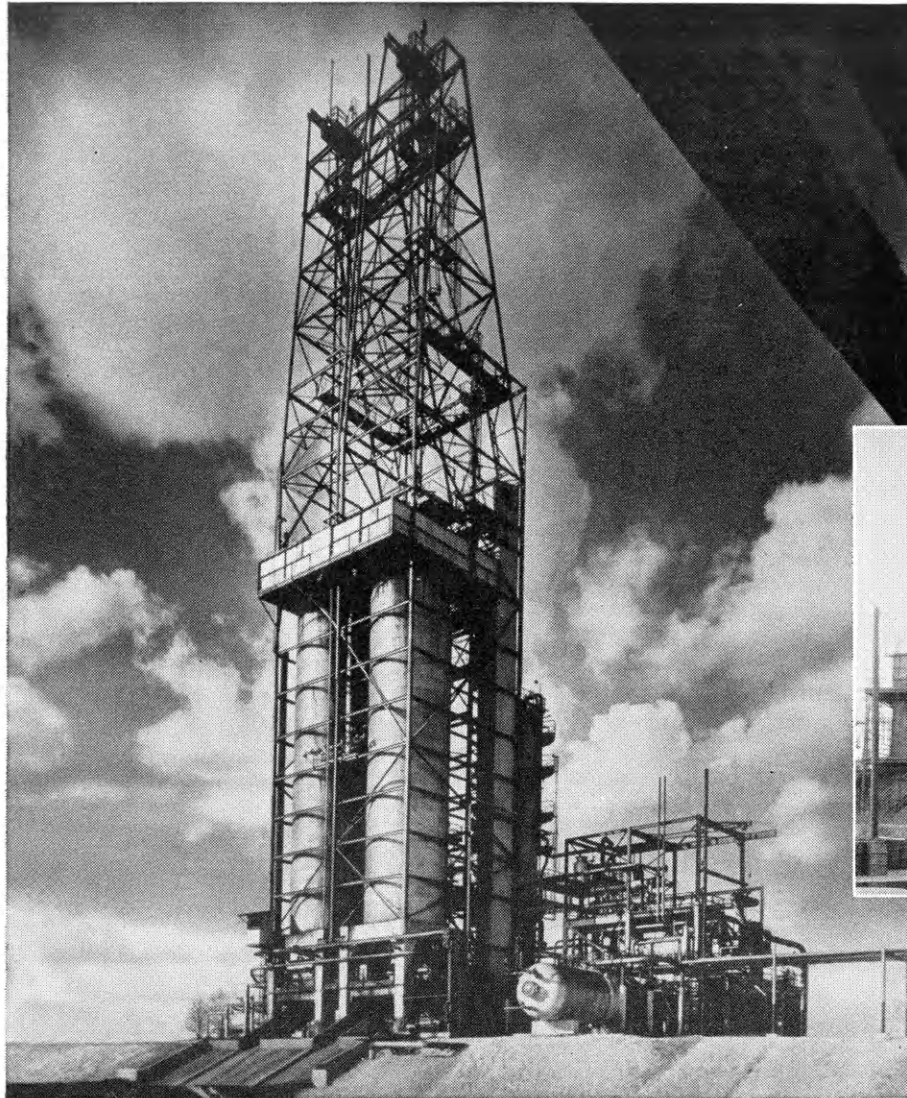
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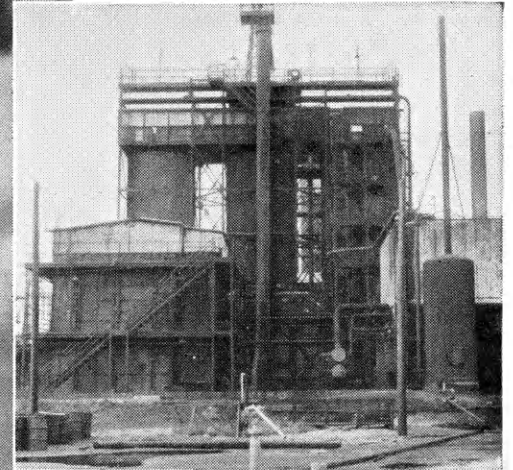
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This towering modern unit at the El Dorado, Ark., refinery of Pan-Am Southern Corporation, a Standard Oil subsidiary, produces 700 tons of coke daily.



Standard's original delayed coking unit at Whiting recently celebrated its 25th birthday "on stream" and going strong.

How to make an exception prove a rule

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

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

Twenty-five years ago last August a process known as "delayed coking" was invented. The new process made a quicker, cleaner job of converting heavy residual oil into gasoline, gas oil,

and coke. It paid off spectacularly when catalytic cracking was invented and these giant new units began calling for feed. It paid off again when the diesel locomotive came along to put the heavy oil burning steam locomotive out of business.

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

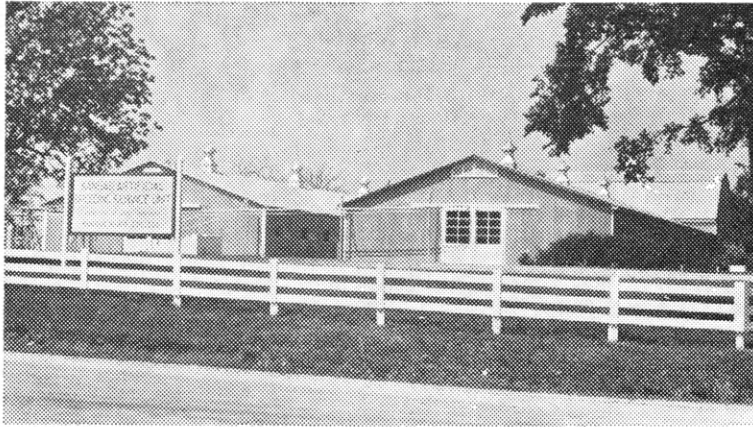
Young scientists in research and engineering at Standard Oil today find it satisfying to see their creative efforts translated into valuable product and process improvements.

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