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THE FARMER'S GAMBLE
see page 14 ..



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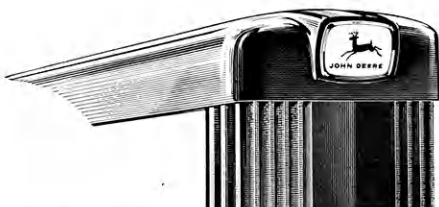
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On the Cover

Uncle Sam shuffles and lays the deck down by Price's elbow. Price cuts the cards and returns them to Uncle Sam, who then expertly deals.

Once around, twice around, five times in all cards softly hit the table's green felt in front of the farmer, Weather, Price, and Uncle Sam. The air is charged with excitement and tenseness, because this game isn't penny-ante, it's the age-old one played for high stakes.

The farmer, who is taking the greatest risk and who also stands to absorb a crippling loss, reaches for the pile of cards just dealt him. He picks the first up to find the ace of spades, the second is the king of spades, next, the queen of spades, then the jack of spades. And then the last card turns out to be . . . ?

What is the face and suit of that final card? If by chance it's the 10 of spades, the farmer is sitting in a good spot holding poker's highest possible hand. He will be able to raise the bet and whip his opponents at their own fast game.

But if that unknown card should happen to be anything else, say the deuce of clubs, then the probability of losing is great. To fold would mean to lose all, so he can only bluff and hope he has enough staying power to win.

As the accompanying story explains, this is the farmer's gamble.—Chester Peterson Jr.

PHOTO CREDITS: Pathology Department, 9; Professor Payne, 10; Courtesy Kaup Furniture, 12; International Harvester Co., 16; and Ag Student Photographer.

Kansas State College AG STUDENT

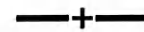
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Published by the Agricultural Association of Kansas State College of Agriculture and Applied Science, Manhattan, Kansas, in October, December, February, March, April, and May. Subscription rates \$1.50 a year; 2 years, \$2; single copy by mail 30c, at office 20c.

Entered as Second Class Matter, November 9, 1945, at the Post Office at Manhattan, Kansas, under the Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 2, 1917, authorized November 9, 1946.

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It Pays to Increase Your AG POWER

by John Carlin

Each right answer is worth 10 points. A score of 100 is an A, 90 earns a B, 80 rates a C, 70 narrowly squeaks by on a D, and a score of 60 or less would earn no grade points.

Correct answers are on page 26.

- Which of the following is not considered a good preventive measure for bloat? a. Feeding dry roughage before turning cattle out on green pasture. b. Alternating pasture with dry lot feeding. c. Continuous grazing after once starting to pasture.
- When building a silo the diameter should be determined by the: a. Quantity of silage to be fed in a season. b. Length of silage feeding period. c. Quantity of silage to be fed daily.
- The number of teeth in a mature mare's mouth is: a. 24, b. 36, c. 40.
- If a bull homozygous for the polled characteristic was mated to several cows which were heterozygous for the horned characteristics, the offspring would be: a. All polled. b. All horned. c. Half of them polled and half horned.
- Viruses may be defined as: a. Ordinary bacteria that can be filtered out. b. Disease-producing agents. c. The simplest form of non-parasitic animal life.
- The best time to dub the combs of chickens is: a. When chicks are one day old. b. 8 to 16 weeks old. c. Just prior to production.
- With hundredweight prices equal, the protein supplement that would be most economical to buy would be: a. Linseed oil meal. b. Cottonseed oil meal. c. Soybean oil meal.
- The minor or trace minerals are so called because they are: a. Less essential than other minerals. b. In less quantity. c. Have only to do with the minor functions of living organisms.
- An example of a commercially popular antibiotic is: a. Erramycin. b. Hermaphromycin. c. Bacitracin.
- The term "shrouding" is often used in: a. Packer slaughtering. b. Milling. c. Plant biology.

Over the Director's Desk

By C. Peairs Wilson

Director of the School of Agriculture



IN A RECENT assembly address, President McCain said, in effect, that the time has come for college students to put first things first. And the thing to put first, of course, is academic work. One of the things President McCain was concerned about was the number of extracurricular activities some students undertake. In some cases, these activities are harmful to the student's academic work.

Two years ago Dean Weber suggested in Ag Seminar that each student choose only one or two extracurricular activities. These would be the ones that are most important to him. Extracurricular activities are good, but they can be overdone. Academic work is also good, but it cannot be overdone.

Real Student Must Desire Education

I think President McCain was also concerned about how seriously some students feel about getting an education. If the truth were known, I wonder how many Ag students are in college for an education and how many for a degree. And I wonder how many are here to postpone the day when they will have to go to work. There is a world of difference between these objectives.

If a student is here for an education, he will avail himself of all opportunities the College offers to acquire knowledge. He will attend class and participate in class discussions. He will welcome library assignments as a guide to the pursuit of knowledge. He will attend as-



Director Wilson

semblies, seminars, and concerts to broaden his knowledge in fields outside his area of specialization. He will assume the responsibility of educating himself. After all, no one can educate a person that doesn't want to be educated.

If a student is in college for a degree or to postpone the day when he will have to work, he will try to "get by." He will use the flimsiest excuse to avoid going to class. He considers a library assignment an interference with a date, a ball game, or sack time. He will spend assembly hours in the Union, read the Collegian or sleep in seminar, and will avoid concerts like the plague. He will dare his instructor to make material so simple that he can memorize pat answers to pat questions.

I know there is a substantial number of honest-to-goodness serious students in Agriculture. But I'm afraid there are more of the other kind than we are willing to admit.

How many times at Freshman Assembly last semester did I have to shout out that class had started and that Collegians should be put down? And then, how many students put them on the floor to continue reading? How about the fellow on the third row who leaned his head back and went to sleep before three minutes of the class hour had gone by?

I thought we were covering some important points—the objectives of higher education, the opportunities and responsibilities of students in college education, the purposes of land-grant colleges and their development, the objectives of K-State and its administrative organization, and the vocational opportunities in various fields of Agriculture. A discouraging proportion of the freshmen gave a higher priority to sleeping and reading than to this sort of subject matter.

Many Ignore Important Values

At a recent Ag Seminar, we had as a guest speaker the Head of the Department of Sociology in a neighboring state. His scholarly talk was on values held by rural people and why they hold those values. Ag students get altogether too little sociology in most of our curriculums. Here was an opportunity to listen to an expert teacher. A number of Ag students attempted to sneak out after their name cards had been turned in, and before they had an opportunity to see whether the address had anything to offer them.

At final examtime last semester, how many students were shocked when an instructor's questions were changed between Friday and Monday? To the fellow who was here for an education, it didn't matter much which set of questions was used to measure his accomplishments. To the unknown fellow who got a copy of the questions on Friday, his friends with whom he shared them, and perhaps others who weren't here for an education but to "get by," it made a great deal of difference which set of questions was used Monday.

President McCain's message is something for all of us to be concerned about. Are you putting first things first?

A Ton or a Teaspoonful

Fertilize Correctly

- Small Plots
- Individual Plants

by Richard Vanderlip

Table 1.—Weights of fertilizers per acre, per 100 square feet, and approximate volume applications for 100 square feet, according to relative weight compared with water.

Materials	Weight specified per—		Volume measure for 100 sq. ft.
	acre	100 sq. ft.	
Weight about the same as that of water (Examples: Cal-Nitro, A-N-L, manure salts)	1,300 pounds	3 pounds	3 pints
	870 pounds	2 pounds	2 pints
	435 pounds	1 pound	1 pint
	220 pounds	½ pound	1 cup
	110 pounds	¼ pound	½ cup
Weight about 1.3 that of water (Examples: ground limestone, ground dolomitic limestone, granular sodium nitrate, potassium sulfate)	5,660 pounds	13 pounds	10 pints
	3,485 pounds	8 pounds	6 pints
	870 pounds	2 pounds	1½ pints
	565 pounds	21 ounces	1 pint
	280 pounds	11 ounces	1 cup
Weight about 9/10 that of water (Examples: ammonium phosphate, double superphosphate, superphosphate, mixed fertilizers, muriate of potash)	1,960 pounds	4½ pounds	5 pints
	1,650 pounds	3¾ pounds	4 pints
	1,220 pounds	2¾ pounds	3 pints
	1,000 pounds	2¼ pounds	2½ pints
	785 pounds	30 ounces	2 pints
	610 pounds	21 ounces	1½ pints
	390 pounds	15 ounces	1 pint
	300 pounds	11 ounces	1½ cups
	200 pounds	7½ ounces	1 cup
	100 pounds	3½ ounces	½ cup
Weight about 8/10 that of water (Examples: Epsom salts, bonemeal)	1,740 pounds	4 pounds	5 pints
	650 pounds	1½ pounds	2 pints
	175 pounds	6½ ounces	1 cup
	44 pounds	1½ ounces	4 tbsps.
Weight about 7/10 that of water (Examples: activated sewage sludge, urea, ammonium sulfate, granular ammonium nitrate, aluminum sulfate, granular borax)	1,740 pounds	4 pounds	6 pints
	1,525 pounds	3½ pounds	5 pints
	650 pounds	1½ pounds	2 pints
	300 pounds	11 ounces	1 pint
	150 pounds	5½ ounces	1 cup
	44 pounds	1½ ounces	4 tbsps.
	11 pounds	½ ounce	1 tbsps.
Weight about 6/10 that of water (Examples: cottonseed meal, sulfur, fish scrap)	1,300 pounds	3 pounds	5 pints
	545 pounds	1¼ pounds	2 pints
	260 pounds	10 ounces	1 pint
	130 pounds	5 ounces	1 cup
Weight about 5/10 that of water (Example: hydrated lime)	1,100 pounds	2½ pounds	5 pints
	435 pounds	1 pound	2 pints
	220 pounds	8 ounces	1 pint
	110 pounds	4 ounces	1 cup

THOSE tomatoes in that seed catalogue sure looked good; I wonder what happened to mine last year. I didn't even get enough from that patch to pay for the seed. Maybe I should have fertilized them. I think I'll see what the gardening book says about fertilizers.

"Snap beans . . . spinach . . . squash . . . sweet potatoes . . . Swiss chard . . . tomatoes—here we are, recommended varieties . . . staking and pruning . . . cultivation . . . fertilizer recommendations: nitrogen, 30 to 60 pounds of ammonium nitrate per acre; phosphorus, 325 to 650 pounds of 0-20-0 per acre; potash. use a mixed fertilizer containing half as much potash as phosphoric acid.

"!!*?*!! ??*?*!!*!*?? How do they expect me to get anything from that recommendation when my tomato patch is only 25 by 45 feet?"

Have you had this trouble? Does it seem to you that vegetable crop fertilizer recommendations were written for commercial growers producing several acres of each crop? Did you know that by making a few simple conversions you can apply these recommendations to any size plot?

Use Equivalents to Figure Rates

The following equivalent measurements will be useful:

43,560 square feet = 1 acre
a plot 210 feet by 210 feet = approximately 1 acre

2 cups, 32 tablespoons, or 96 teaspoons = 1 pint
 a pint of water weighs slightly more than a pound (1.046 pounds).

Now let's get back to the tomato grower. A plot 25 by 45 feet is approximately one-fortieth of an acre. Therefore, about one pound (1/40 x 45 lbs. per acre = 1 lb.) of ammonium nitrate is enough for the plot. By similar calculations (1/40 x 600 = 15), 15 pounds of phosphorus is needed and if soil tests show a deficiency of potash, about 7 1/2 pounds of potash.

Or looking at table one, where compounds which weigh about 7/10 that of water are listed, if the rate of 44 pounds of ammonium nitrate is used, 1 1/2 ounces should be used per 100 square feet. A plot 25 by 45 feet contains 1125 square feet, so 1 1/2 x 11 means that about one pound of ammonium nitrate is needed for the plot. Phosphate and potash rate of application may be similarly calculated.

Can Fertilize Individual Plants

Suppose that you would like to apply fertilizer only in the row or

Table 2.—Approximate equivalent-volume measures of materials to use per plant at various rates per 100 square feet. (Figures for these tables from USDA leaflet 307)

Rates per 100 sq. ft.	Rates per plant, spaced—		
	5 x 5 ft.	2 1/4 x 2 1/4 ft.	2 x 1 1/2 ft.
10 pints	2 1/2 pints	1 cup	1/2 cup
6 pints	1 1/4 cups	1/2 cup	1/4 cup
4 pints	2 cups	6 1/2 tbsps.	3 tbsps.
3 pints	1 1/2 cups	5 tbsps.	2 1/2 tbsps.
2 1/2 pints	1 1/4 cups	4 tbsps.	2 tbsps.
2 pints	1 cup	3 1/4 tbsps.	1 1/2 tbsps.
1 1/2 pints	3/4 cup	2 1/2 tbsps.	1 tbsp.
1 pint	1/2 cup	1 1/2 tbsps.	2 1/2 tsps.
1 1/2 cups	6 tbsps.	1 tbsp.	1 1/2 tsps.
1 cup	4 tbsps.	2 1/2 tsps.	3/4 tsp.
1/2 cup	2 tbsps.	1 1/4 tsps.	1/2 tsp.
4 tbsps.	1 tbsp.	1/2 tsp.	1/4 tsp.
1 tbsp.	1/4 tbsp.	1/6 tsp.	1/12 tsp.

with the individual plant. Table three shows that, for example, if 1 1/2 pints of phosphate should be added per 100 square feet and the tomato plants were set 30 x 30 inches apart, about 2 1/2 tablespoons should be added per plant.

Although specific fertilizers have been used as examples in the foregoing problems, these are not neces-

sarily the recommended ones. All compounds and rates were used only to clarify the problems.

Random fertilizing can do more harm than good. The amount of fertilizer used should be determined by the soil, its previous treatments, and requirements of the crop to be grown. Some materials are applied in relatively large quantities, whereas others are used sparingly.

For example, the nitrogen recommendation for tomatoes would be small because a large amount would injure the plants. Much larger amounts of phosphorus would be recommended.

Consult Dependable Sources

Rates and application times of fertilizers can be obtained through your county agent, from garden columns in newspapers and magazines, and from the state experiment station. A copy of a "Fertilizer Timetable" for vegetables, fruit, and field crops in Kansas may be obtained by writing to:

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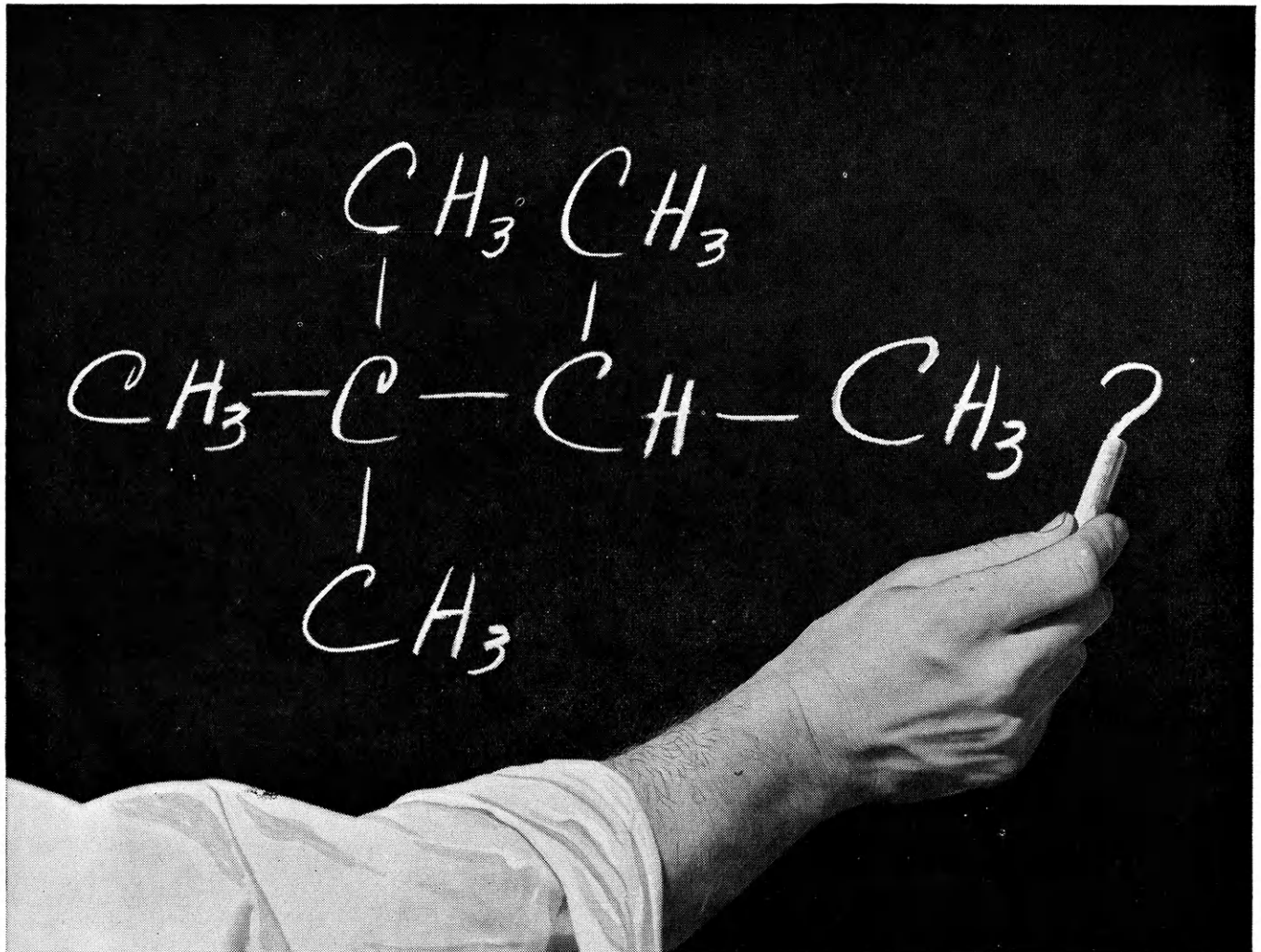
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For a free copy of a booklet listing the growers of the above crops contact:

The Kansas Crop Improvement Association

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Triptane, whose formula is shown above, represents one of the most important challenges in petroleum research. Although oil companies have been working

with this valuable gasoline anti-knock component for 15 years, no method for low-cost commercial production has yet been developed.

We don't have all the answers...yet!

We already know quite a bit about triptane, whose formula is shown in the picture. It is a branched heptane. Scientists at Standard Oil's laboratories can tell you that its octane number is 113. It is one of the best gasoline ingredients ever discovered.

As far back as 15 years ago, triptane could be produced in tank truck quantities. But no one has yet developed a large volume commercial method of making this valuable material.

Triptane represents but one of the creative research challenges that exist in the oil indus-

try. A commercial way to make cyclopentane, another anti-knock material, ranks high on the list of unsolved problems. The same is true of certain hydrogenated polymethyl naphthalenes; their high energy content and low pour-point make them ideal for jet fuel.

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THE SIGN OF PROGRESS...
THROUGH RESEARCH

Is This the Key to Cancer Control?

by Richard Rees

THEY SAID that it couldn't be done. They were sure a cure for cancer would never be found, but combined efforts of the K-State Pathology and Poultry departments may prove otherwise.

How do these two departments plan to do this? They hope to do it by experimenting with a virus of avian leukosis complex in chickens and turkeys. This is a disease related to several cancerous conditions.

Avian leukosis complex, more commonly known as big liver disease, range paralysis, or gray eye, has been a source of tremendous loss to the poultry industry during recent years. The leukosis complex is a member of a group of diseases caused by filterable viruses. In terms of economic loss to the industry, this group causes the most important poultry diseases.

Avian leukosis is made up of five

different types or strains. These are neural lymphomatosis, affecting the nervous system; ocular lymphomatosis, affecting the eyes; osteopetrosis, affecting the bones of the bird; erythroblastosis, affecting the blood; and visceral lymphomatosis, causing tumors in the internal organs.

Killer Disease Aids Research

Visceral lymphomatosis, the number one killer of poultry, was isolated from chickens and turkeys and has since been experimentally transmitted to other chickens and turkeys. The turkey strain isolated at K-State is so deadly that a bird will die within six and one-half days after contracting the virus. This disease is transmitted by contact with an infected bird, but body wastes of an infected bird, through the egg, and through feed and water.

Prof. T. B. Avery and Dr. M. J. Twiehaus of the Departments of Poultry and Pathology, respectively, are supervising experiments being done in cooperation with the U.S. Regional Poultry Research Laboratory. Work was started here in February, 1957.

Since that time the experiments have been centered around isolating the various strains of virus causing visceral lymphomatosis, studying the symptoms and characteristics of infected birds, and observing the effects and characteristics of the virus.

Amos Kahrs, poultry farm manager, has charge of hatching chicks for experimental purposes and of the 250-bird breeding flock which is kept for replacement chicks. He is responsible for a rigid sanitation program, since experimental results will be inaccurate if other diseases are allowed to enter the flock. The breeding flock is not inoculated or vaccinated against any other diseases, thereby making the sanitation program even more important.

According to Kahrs, this strict pro-

gram has been directly responsible for the fact that only two birds have died since the experiments were started, and that neither bird showed any signs of infectious diseases.

When chicks are placed on experiment, they are inoculated with virus into the abdominal cavity and then are placed into brooders in lots of twenty-five each. The chicks may range in age from one day to one month when they are inoculated. They are fed a normal, complete ration and are kept under carefully controlled and supervised conditions.

When these chicks die, they are subjected to an autopsy to determine effects of the disease on internal organs. James A. Will, a graduate student in pathology, is in charge of maintaining the virus strain, virus transmission, postmortem examinations, and keeping complete behavior reports on the birds.

It's been found that several different organs may be affected in the same fowl. The liver, spleen, heart,

(Continued on page 22)



"Big liver disease" is a tumorous condition that is caused by malignant cell growth.



An infected individual has a relatively larger liver than does this normal chicken.



Prof. Payne's unique garden contains such native plants as turkey foot and cockscomb.

Poultry Professor Grows Unusual Garden

by David Newton

Prof. Loyal F. Payne of the Poultry Husbandry department has one of the most unique hobbies on campus; a poultry flower garden.

Professor Payne was fascinated by flowers and plants that bear poultry terms as names. He started out with the types of flowers that are found in this region. Some of the plants are: Hen-and-chicken, chickweed, cockscomb, Kansas gay feather, turkey berry, turkey foot, bird-of-paradise, ducksfoot, larkspur, and cockleburr.

From a list of 107 plants, Professor Payne plans to select those which are most desirable. Many seed varieties will come from outside Kansas, some even from Europe.

Besides his poultry-named flowers, Professor Payne is interested in other types of growing plants. He has a wide variety of shrubs growing on his acre of land in Manhattan, and takes pride in his U-3 Bermuda lawn, which is a type of grass that is relatively new.

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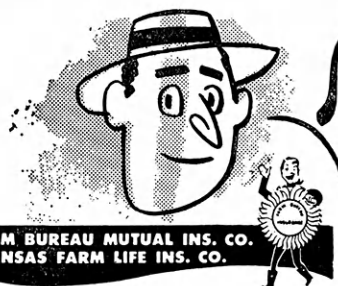
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Can You Afford Weeds?

USDA Says 'No'

by Don Stuteville

FARMERS are paying nearly four billion dollars annually for the privilege of growing weeds, according to the United States Department of Agriculture. That's a lot of money to throw away on a pest, so let's take a closer look at this problem.

First, we should designate which plants are to be considered weeds, and then see how they cost us money. The old definition of a weed being "a plant out of place" perhaps defines a weed well enough, but let's dress the definition in more modern language as, "a plant not intentionally sown, whose undesirable qualities outweigh its good characteristics. In other words, rye in a wheat field is a weed.

Quality of Crop Is Lowered

One of the losses caused by weeds is the lowering of both crop quality and quantity. No one would dispute the fact that seed infected with weed seed is lower in quality than pure seed, but many people do not realize just how much the quality of crops can be decreased by weeds.

Dr. Gates, in the Kansas State Board of Agriculture publication, "Weeds in Kansas," reported on the adverse effects of bindweed. Wheat yields were reduced fully one-half in infested areas and sorghum forage was reduced 1.86 tons per acre due to bindweed.

Losses from field bindweed were largely due to the reduction in available moisture to the crop. Russian thistle, another noxious weed, requires

43 pounds more water to produce a pound of dry matter than does sorghum, and pigweed requires 29 pounds more than sorghum. Lambs-quarter will use more water for each pound of dry matter than any farm crop except alfalfa.

The harm isn't in the overuse of moisture alone, but also in the use of nutrients. Wild mustard requires twice as much nitrogen as wheat does. A farmer can't afford to buy nitrogen to feed weeds.

Crop harvesting is often delayed by the presence of weeds. Breaking down of machinery and clogging of the combine or field cutter is an added expense because of delays, and strain on machines as well as the farmer. How many hands and arms have been lost because a weed clogged a corn picker? Could these farmers afford to grow weeds?

Value of farm land is reduced due to the presence of weeds, especially noxious weeds. It costs about \$50 for soil sterilant, plus application cost, and lost use of the land for several years, to kill one acre of bindweed.

A farm that has become infected with weeds will be a problem for many years. This is due to the length of time that a weed seed may retain its germination ability.



This "plant out of place" may be one of the culprits that is stealing your profits.

Foxtail seed may remain viable for 30 years; ragweed, pigweed, peppergrass, plantain, and purslane for 40 years; mustard, smartweed, and velvet leaf for 50 years; and primrose, dock, and mullein seed may remain alive for 70 years. A farmer might not live long enough to see the effects of just one year when weeds were allowed to produce a bumper seed crop.

Many times grains heat and have to be moved or dried due to moisture from green, weedy plant parts. This is not only an expense because of decreased grain value, but it costs to handle the grain a second or third time.

Forage Output Is Decreased

Production of hay and pasture crops is greatly reduced by the presence of weeds. Weeds reduce the amount of feed grown by using most of the available moisture and nutrients. They also reduce the quality or quantity of livestock products.

Milk from dairy herds may be objectionable due to the consumption of weeds by cows. Beef production is reduced, too, by weedy pastures. Wool from sheep pastured in areas

(Continued on page 25)



Choose Your Carpet

with Living in

by Karen Peterson

IS YOUR RUG taking a beating? Does your living room carpet look the worse for wear?

Modern living habits are rough on carpets and rugs, so chances are you've answered "yes" to both questions. Television in the living room (the room most likely to have a carpet) makes more traffic there. Today's larger families are hard on rugs, too.

A carpet or rug is a big investment, so whether you're buying your first carpet or replacing a worn one, you'll want to do some careful planning.

Cost will probably be one of the first things you'll consider. For a

good-quality rug or carpet, \$10 a square yard is about the least you can expect to pay. The initial price may seem like quite a bit, but when you stop to think that a good carpet should last at least 10 years, the cost per year isn't too high.

More Than a Floor Covering

When you buy a rug or carpet, you buy much more than a floor covering. You buy safety for babies, toddlers, and older folks for whom slick floors are really dangerous. You buy comfort, because a carpet reduces "foot fatigue." You buy beauty and color, and an attractive frame for your furnishings.

A carpet provides warmth, both through appearance and actual insulating properties. Almost three out of four housewives interviewed by

the Carpet Institute found it easier to care for a carpet than to keep a bare floor scrubbed and waxed. Carpets compare well with most acoustical treatments in cutting down noises that travel through air, and they all but eliminate floor-impact noises.

When you choose a color for your carpet, pick one you'll like to live with. The carpet is the largest color area in the room, next to the walls. Since lighting affects the appearance of a color, it's a good idea to look at a carpet under both natural light and the type of artificial lighting you have at home.

By repeating the wall color in a rug, you can tie together a room cut up by jogs or too many doors. A small room can be made to seem larger by using a light or cool color for the rug. Cool colors include greens, blues, and purples; warm colors include yellows, oranges, and reds. A large room looks good with patterned, warm-colored, or tone-on-tone carpet. Tone-on-tone refers to light and dark values of the same color. A dark room, such as one on the north side of the house, can be brightened with light or bright rug colors; a sunny room, subdued with medium to dark colors, such as cool green or soft gray.

Complement Furniture Style

A wide range of rugs and carpets available today makes it possible for you to choose just the right type to go with your style of furnishings. The ideal rug will frame the furniture pieces in a room and show them off to their best advantage.

The lines of modern furniture look clean-cut against an uncluttered solid-color background, or can be livened with abstract textures and patterns. Stripes make a stylish accent. Traditional furniture calls for formality. Good choices include wall-to-wall carpeting in colorful patterns



This salesman shows points of carpet construction to Mrs. Clinton Stalker, Kansas State graduate student. Many salesmen bring samples to the home to demonstrate their effect.

Mind

borrowed from the past, tone-on-tone, or a sculptured pattern.

Replicas of hooked rugs look charming with colonial furnishings. Flower and leaf designs are also attractive and harmonize with the furniture's simple lines. Tweed, twist, or nubby textures set off casual rooms where modern and traditional pieces are combined. Precise geometric patterns make good backgrounds, too. They give a feeling of order and rest to a room with an informal furniture arrangement.

Natural and Synthetic Fibers Used

Wool is the most widely used carpet fiber. Its properties of toughness, luster, and springiness make this natural fiber superior. The resilient pile of a good-quality wool carpet springs back naturally after being crushed, and is very durable. A carpet like this looks good for years and cleans very satisfactorily, according to the Carpet Institute. Wool is available in a wide range of colors.

Cotton, the other natural fiber used in rug-making, has no natural resiliency, and this lack of springiness results in crushed pile. Reflection of light from crushed areas produces a condition known as shading. Some people find this effect pleasing, while others don't care for it. Regular use of a vacuum cleaner or carpet sweeper will raise the pile, but crushing and shading seem inevitable even in dense construction. A good-quality cotton rug is durable and a wide range of attractive colors is available.

Nylon is strong, but like all synthetic fibers, it has no natural resiliency and may crush down. Water-soluble stains are easy to remove, but static electricity created by nylon attracts dust. Rayon is least expensive of the carpet fibers, and it takes dyes well. It's best suited to areas where traffic is light, as it tends to crush, too.

Acrlan gives you wear and cleanability, according to Mrs. Opal B. Hill of the K-State Art department. It has a tendency to crush down and doesn't come up too well. "But don't be afraid to buy it," she adds.

A good fiber blend, 70 percent wool and 30 percent nylon, for instance, will wear half again as long as a similarly priced all-wool rug. A blend of half wool and half rayon gives you more fullness, crush resistance, and toughness than an all-rayon rug, at a moderate price. Synthetics added to wool also make brighter and clearer colors possible.

A rug pad is essential if you want to get the most possible wear from your rug. A hair pad is often used, but it will stretch and shed hair with normal use. A new type of pad, made of all-new pressed materials, is only a few cents a square yard more expensive. It keeps its shape and doesn't shed.

Proper care will add to the life of your carpet, and proper care means regular care. All areas with heavy traffic, such as family room, entrance hall, and stairway, should be cleaned daily with a carpet sweeper or

vacuum cleaner. This prevents dirt from working down around the base of the tufts and grinding away at the fabric.

Weekly cleaning should include the use of a vacuum cleaner in corners and under large pieces of furniture. A clean rug or carpet is less likely to attract moths. Periodic care should usually be handled by an expert.

Make a Wise Purchase

When you buy your carpet, go to a reliable dealer and choose an established brand. Be sure to read the label for authentic information on quality. Many stores will be glad to send a representative with different carpet samples to your home. This will let you see exactly how the carpet will look in your room with your furnishings. It's also nice to let the other members of the family have a share in making the final choice.

For a booklet with more complete information, write Carpet Institute Inc., Dept. CB, 350 Fifth Avenue, New York 1, New York. The title is "How To Buy Your Rugs and Carpets . . . Wisely." There is no charge.

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THE FARMER

by Ken Hylton

IF YOU were to begin a search for a professional gambler, where would you start?

You might try Las Vegas or Reno, but there's really no need to travel so far from home. The real professional gambler can be found crawling out of the sack early in the morning on any farm in the U.S.A. and donning a pair of overalls rather than a tuxedo.

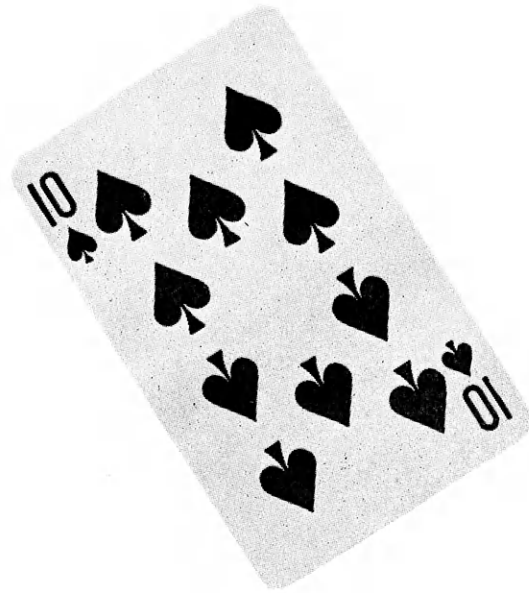
Daylight Gambler Uses Live Chips

This gambler plays a different kind of game than we usually think of when we talk about gambling. He uses live animals and fields of grain for chips and usually tries to get the game over with before the daylight hours end rather than to begin then as the city gambler would do.

We know that everyone has to gamble to a certain extent at times, but the farmer's livelihood is a continual gamble. The odds aren't always 50-50 either, but the farmer quite often has to take what odds he can get and go ahead.

There are many farmers who have done well in their undertakings. Some of them are the ones who gambled the most; that is, they took the biggest chances and probably on several occasions stood to lose everything they had. This seems to be what it's going to take in the future.

The rumor that the little man's place in agriculture is disappearing is not just idle talk. The days when a farmer could make a living with just a couple of acres and a few head of cattle, hogs, or sheep have already disappeared for the most part and the future looks even darker. At present, little more than a bare existence can be gleaned from such limited activities.



The ten of spades, and the farmer has a royal flush. He wins the pot from Price, the Weather, and Uncle Sam. It looks like a prosperous year ahead for him and his family.

As any gambler knows, you can't win all the time. In fact, you're lucky if you win half of the time. This is where our rural professional finds the odds building up against him. To start out a large-scale farming operation, most farmers have to risk their necks and sooner or later a few of them will lose their shirts.

Why is the farmer in such hot water? It may be said that the American farmer is in a tight spot because he does his job too well. He produces more food than the people can eat, with the result that prices have fallen to a point barely exceeding production costs. This has happened at a time when production costs have continued an upward climb. This situation is referred to as the "cost-price squeeze"—and squeeze it does.

The farmer has a pretty formidable group of gambling opponents: Uncle Sam, Price, Weather, and Production Costs. Any or all of them can give the farmer a real headache and leave him in a state of financial embarrassment if he loses.

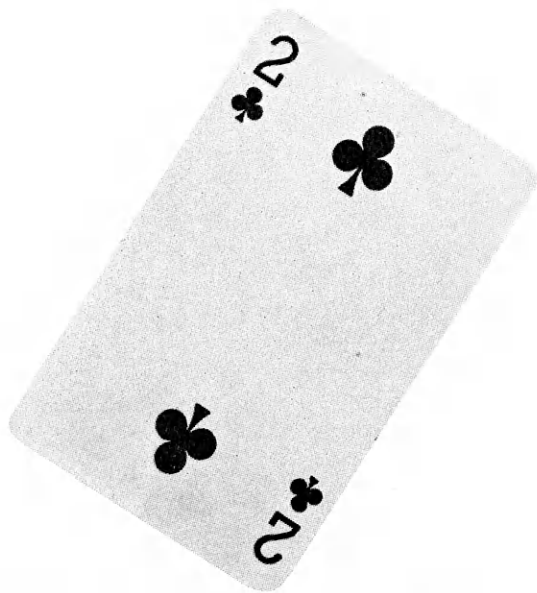
Uncle Sam has a rather unique

position at the gambling table. Maybe we should say a strange position as well as unique. Uncle Sam has a definite interest in farmers. He knows that the whole game depends on the farmer winning enough of the time to stay in the game. One of the main causes given for the decline and fall of the Roman Empire was the loss of the small land owner, and Uncle Sam doesn't want that to happen when he's dealing.

Win or Lose—Uncle Sam Shares

Now, about this strange position we mentioned. Uncle Sam has some element of control over the entire game. He receives a certain commission from the farmer, depending on how much the farmer wins. This cut is, of course, income taxes. For some time now Sam has been using some of this commission to sweeten the pot for the farmer when things aren't going too well. This comes under the heading of price supports. It's fast becoming evident that Uncle Sam's main reason for being in the

R'S GAMBLE



The deuce of clubs, and the farmer cinches up his belt for a lean winter. Will Price take a nose-dive, Uncle Sam cut the profits, or Weather destroy a whole year's labor?

game is to keep things on an even keel.

Uncle Sam's position is not an enviable one! He receives criticism from all sides, including those he feels he is helping.

Price has always been one of the most important factors in the farmer's gamble. It's one of the important factors which determines if the farmer will use black or red ink to make out his records.

Price Supports Affect Winnings

Here again Uncle Sam plays a part in the game. His price-support plans have been praised, criticized, cussed, and discussed for several years. The price support has a very important effect on the farmer's profits. The support level has fluctuated according to what Uncle Sam thought best. Also, in order to make the support plan more efficient, acreage allotments became necessary. This practice has received a cool welcome by many farmers, too.

Some people feel that the price should be determined entirely by the

law of supply and demand and that Uncle Sam should deal himself out. This is a perplexing problem and one which may have pronounced consequences, whether price supports continue or supply and demand are allowed to rule.

At last we come to a member of the game that Uncle Sam cannot, as yet, control. This "honest" player is the weather. By irrigation and improved farming methods we have succeeded in decreasing some effects of undesirable weather, but we haven't as yet been able to control the elements themselves.

Weather conditions have been a source of worry to farmers since the first seed was planted. A lack or an excess of rainfall can make or break any one of the farmer's crops.

Sometimes, when the crop is full grown and almost ready for harvest, one bad storm can ruin the whole works. While his city cousins watch a black cloud and fear that they may lose their TV antennas, the farmer breaks into a cold sweat, knowing that he and the gravy train may be

complete strangers within the next hour or so.

Many farmers are finding it necessary to take out insurance on growing crops to cover natural disaster. This gives a partial solution to the problem, but it also adds considerably to the farmer's production costs.

This brings us to the last member of the game: production costs. The cost of producing farm products has been increasing steadily for a number of years and has been largely responsible for the cost-price squeeze. Here again Uncle Sam exercises control in guarding against inflation.

Stakes Increase As Game Grows

As the size of the farmer's projects increases, the amount of capital which he has tied up in each project mounts accordingly. The farmer has to do everything on a larger scale now, than in the past, because of narrower margins on each unit he produces. Thus, by investing more in each project, the farmer risks more on each, and the failure of any one of his several projects may threaten his financial security.

Many farmers are now taking the risk out of part of their operations by putting some land in the soil bank. Although this doesn't net the farmer as much profit per acre as he would probably make during a good year, many farmers feel that it's better to take the red chips home rather than to gamble for the blue. This "bird in hand worth two in the bush" philosophy is conservative, but safe.

The increased risk and pressure of farming have already sent many farmers to the city. Those who remain are the ones with the most spirit, luck, backing, or something else that enables them to keep up the struggle. They may risk everything they own or can borrow for a return which will allow them to maintain the standard of living they feel they deserve.

This is the "Farmer's Gamble."



by John Thomas

WHERE do you sell your livestock, terminal market or local auction?

A recent K-State survey shows the percentage of sales to both terminal and auction markets, in Kansas, has steadily increased. There is only one exception, this being a slight drop in cattle sales to terminals.

This reduction in terminal cattle sales raises the question as to where these cattle went. Other figures show that the percentage of cattle sent to auctions went up 24.2 percent in the last 16 years. This not only took sales away from the terminals, but also from all the other marketing outlets such as dealers, packers, local cooperatives, and other farmers. Farmers selling stock on the farm may receive 25 to 50 cents less per hundredweight than those shipping or trucking to a market.

You're probably wondering how this affects the average Kansas farmer. Suppose you had a carload of fat steers to sell, or maybe some culls from your dairy herd. Perhaps you

own a few brood sows that were bred too late and you have only enough to make half a load in your pickup. Where are you going to haul them?

Before flipping a coin or making a wild guess, look at what others are doing. In a marketing survey conducted by the Agricultural Economics department at K-State, 500 Kansas farmers and livestock feeders were given a questionnaire on livestock marketing preferences.

Of the farmers questioned who sold cattle at terminals, over one-fourth did so because of higher prices. Another one-fourth said they thought there was better buyer competition at the central markets.

On the other hand, 23 percent of those selling cattle at auctions stated they got a higher net return. This is mainly due to lower transportation costs. Also the local auction was more convenient.

Most Lambs Sell Through Terminals

Almost all slaughter lambs raised in Kansas are sold at terminal markets. They are marketed there because of stronger competition among buyers, which in turn means higher prices.

Producers selling hogs gave essentially the same reasons. About a tenth of the stockmen selling hogs to terminals also believed that there was less shrinkage in their animals than when sold by a local auction.

Replacements Bought at Auctions

Where farmers buy livestock also will affect sales. On the average, 62 percent of the cattle bought in Kansas for replacement or feeding purposes came from local auction barns, 27.3 percent from other farmers, 8.2 percent from terminals, and the remainder from dealers.

Forty percent of the stockmen buying feeder cattle from auctions stated that they did so because they could find the kind and quality of livestock they desired. Also they thought auctions were more convenient and presented less chance of contracting livestock diseases. Again, transportation charges were less due to the shorter distances usually traveled to auctions.

Over a half of the sheep ranchers purchased their animals directly from dealers.

Although some farmers are set in their ways about where to market

Local Auction?



people will bid on your stock. You'll know the price when sold and payment will be made right away. Auctions are more convenient if you have only a few head to sell.

You may send all of your fat stock to the local sale. At bigger auctions usually there is a small packer located nearby who pays farmers a fairly good price.

Choose a Reputable Firm

If you ship to a central market, place your livestock in the hands of a respectable commission firm. These men are experienced and do their best to get the highest possible price for your animals. If you get a good price they know you're much more likely to deal with them again.

There are yardage costs and commission fees to pay, but these are usually equal to and sometimes under the cost of marketing at an auction.

No matter where you send your stock you may have some complaints. The survey found the main criticisms against auctions to be the reputed collusion between buyers and/or sellers by bidding, and unsanitary conditions. Most criticisms of terminals concerned high marketing costs, and again, suspected collusion among buyers and/or sellers.

Neither terminals nor auctions are perfect, but each is good in its own way. And neither could individually satisfy the demands that they both partially fill.

It's up to you, the producer, to decide which one to give your business to.



stock, others, possibly you, are just as undecided about which outlet is best.

There are many factors to be considered when you, a farmer, sell your load of cattle or hogs. Prices other people are getting at either of the outlets is probably the most important. From this estimated price you must allow for shrinkage and transportation costs.

The type of livestock you are selling also enters into the problem. For example, if you have some feeder animals to sell you may wish to send them to an auction in another part of the state where that type is in more demand.

If you sell through an auction you'll have no commission company to bother with and you will probably have less risk of loss. Then, too, more

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This student uses an accurate balance for weighing ingredients in the laboratory.

Chemistry Builds

The Framework

by Ben Brent

HAVE YOU ever stopped to consider what agricultural chemistry means to you? Do you look upon chemistry as simply an uninteresting, irrelevant subject calling for hours of study, or do you think of chemistry as a vital, challenging field, necessary to a basic knowledge in all areas of agriculture?

Agriculture is the oldest science known to man. However, it was not until 1775 that chemistry, as an applied science, made itself felt in the ancient field of agriculture. It was about this time that the noted French chemist, Lavoisier, was making his famous studies into the very life processes of plants and animals. In the next thirty years, mankind learned more about scientific agriculture than during the millions of preceding years.

Germany Fixes Nitrogen from Air

Following closely on the heels of Lavoisier's renowned studies, a German chemist, Justus von Liebig, discovered that the growth of a plant was limited if any single essential mineral was deficient in the soil. This gave rise to the commercial fertilizer industry. The industry expanded during the nineteenth century until finally, in 1914, Germany began to produce synthetic ammonia, an important source of fixed nitrogen, from nothing but air and water.

So much for the history of agricultural chemistry. What about modern

chemistry as applied to agriculture? And what about research in agricultural chemistry being conducted at K-State?

Investigates Feed Flavors in Milk

In the Department of Dairy Husbandry, Dr. Richard Bassette is studying so-called "feed flavors" in milk. Just after milk leaves the high temperature-short time pasteurizer, it enters a vacuum chamber, where, because of the lowered pressure and high temperature, the milk "flashes" or boils.

The gases evolved in this flashing process are collected, and either condensed out or combined with some stable compound which later can be analyzed. It is believed that many of the materials causing off-flavors in milk are contained in these volatile compounds.

After the volatile materials are recovered, they are analyzed by a complicated chromatographic process in order to determine their chemical nature. The ultimate purpose of this fundamental study is to aid in the production of better milk by enabling scientists to discover how off-flavors get into the milk, and how they can be controlled.

It is also hoped that this research will lead to the development of chemical procedures by which milk

chemists may test samples of milk for specific compounds or groups of compounds related to milk flavor.

Dr. D. B. Parrish of the chemistry department is working in cooperation with the Department of Dairy Husbandry; the Agronomy department; the State Soil Conservation Commission; the U.S. Plant, Soils, and Nutrition laboratory at Ithaca, New York; and the Mound Valley branch experiment station on a study involving mineral content of forages in southeast Kansas.

The study was initiated because livestock men in this area observed symptoms in their animals not observed in other parts of Kansas. Twenty-seven forage plots were selected in Crawford, Labette, and Bourbon counties. In these plots, the soil was classified, and samples of the forages were analyzed for protein, and both major and trace minerals.

Check Plots Studied in Other Areas

In addition to the twenty-seven plots in southeast Kansas, seven plots were selected north of Topeka and four plots in one of the college pastures. The purpose of the eleven northern plots was to serve as a check. The same analytical procedures are followed on all forage samples.

In all, nearly 250 forage samples are being analyzed. It is hoped that

Work of Agriculture

Through Basic Research

as a result of this study, accurate recommendations can be made as to the possibility of a trace mineral deficiency on many types of soils found in this area.

Grain Analyzed in Feed Tech Lab

In the Department of Flour and Feed Milling Industries, Asst. Prof. G. D. Miller is in charge of analytical work with wheat and various other grains. At present, Professor Miller is working on the palatability of milo.

According to Miller, there is a difference in the palatability of various varieties of milo. His work in the laboratory is concerned with determining a chemical basis for the flavor difference. In addition to experimental work, the lab is used for routine flour and wheat analysis.

Wheat samples from all over the state are analyzed for protein, ash, and moisture content. Milo is also analyzed in the lab for protein, ash, moisture, crude fat, and fiber. The lab is also used for analysis of feeds produced in the college feed mill.

Feed technology is also working on techniques for determining constituents of feeds by microscopic methods. This procedure holds considerable promise when used for the detection of adulteration in feedstuffs.

In meat research, Dr. J. L. Hall, in cooperation with the Department

of Animal Husbandry and the School of Home Economics, is studying the keeping quality of meat. Loins are stored at a temperature of minus 10 degrees. Samples are taken at twelve-week intervals.

The Home Economics department then tests the samples for aroma, tenderness, flavor, juiciness, and cooking quality. The loins are also analyzed chemically for protein, fat, moisture, and ash. In addition to these determinations, measures are made of press fluid, or the amount of liquid that can be forced from the meat under pressure, stability of fat, and non-protein nitrogen content of the meat. Non-protein nitrogen analysis is used as a determination of protein breakdown during storage.

Other work on meat deals with the determination of residual stilbesterol from lambs treated with both stilbesterol implants and feed additives. First, ovaries are removed from female mice. Then they are fed the meat in question, and after a given length of time, are killed and their uteruses weighed. The weight of the uterus is compared with the uterus weight from mice receiving a known level of stilbesterol in their feed.

So far in the experiment, no significant amounts of hormone have been found in the meat.

Chemistry in agriculture is an ever expanding field, with only a few

facets being mentioned here. Chemical fertilizers, insecticides, fungicides, pesticides, and many other chemical materials developed within the past few years haven't been dealt with.

To what extent will chemistry in agriculture develop? What new changes will we see in the next few years? In fact, is it feasible to imagine that in some future time, chemistry will completely replace agriculture?

The protein content of samples used for nutritional research is indirectly found by analyzing for nitrogen in the Kjeldahl digester.



Jet Age Machinery with Horse and

Modernize Your Farm

by Don Sumner

KANSAS farmers are spending too much money for off-the-farm repair work. They realize the value of a well-equipped farm shop, but far too many are still using a vise in the corner of the barn for their farm mechanics work. With adequate planning and some elbow grease, every farmer can have a shop for repair work.

Initial Cost Is Quickly Repaid

A farm shop doesn't have to be costly. It may be built up slowly and paid for by what it saves the farmer in time and money. A long-range plan should be used, so when a piece of equipment is purchased, it can be installed where it will do the most good.

Size of the farm, availability of good commercial services, mechanical ability of the operator, and personal tastes of the operator are factors that determine how the shop is to be planned.

It should be centrally located in relation to the other farm buildings, close to a power source and near the house. An unused building, a new building, or part of a machine shed can be used. If a separate building is used, it should be at least 40 feet from other buildings for fire safety. The area outside the shop should be well drained.

The building should be economically constructed, but poor-quality workmanship and materials should be avoided because they will prove expensive in the long run. The mini-

mum size for a convenient shop is 24 by 24 feet, with a larger building allowing more room for machinery repair. It should have a roof free of center supports.

A large door for machinery and a small side door are desirable. However, a small door shouldn't be placed within a large door, because it weakens the larger door. Floors should be four inches thick in most of the shop and at least five inches thick where heavy machinery is used.

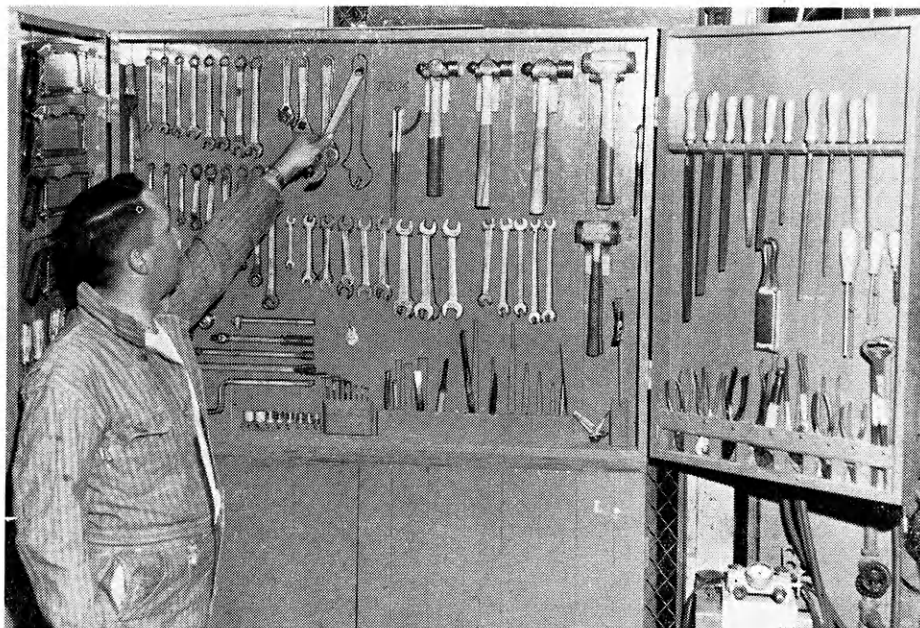
The inside of the farm shop should have these four requirements:

- (1) Electricity source.
- (2) Well-lit workbench area.
- (3) Ample wall space for shelves and cabinets.
- (4) Area where welder or forge can be used without danger of fire.

Both 220- and 115-volt outlets are needed. One 220-volt outlet should be located near the main door so that an arc welder can be used outside the shop. A circuit-breaker control system is recommended for shop use. An overhead outlet for each 200 square feet of floor area, and window space equal to one-eighth of the floor area insure adequate lighting. An outside floodlight above the large door is necessary for night work.

Utilize Spare Space for Storage

Storage should be included for iron, lumber, and other odds and ends. Use of a discarded barrel for scraps, "pigeon-hole" bins, homemade cabinets, fruit jar racks, and gallon cans nailed to a wood frame are other simple means of handling needed small items.

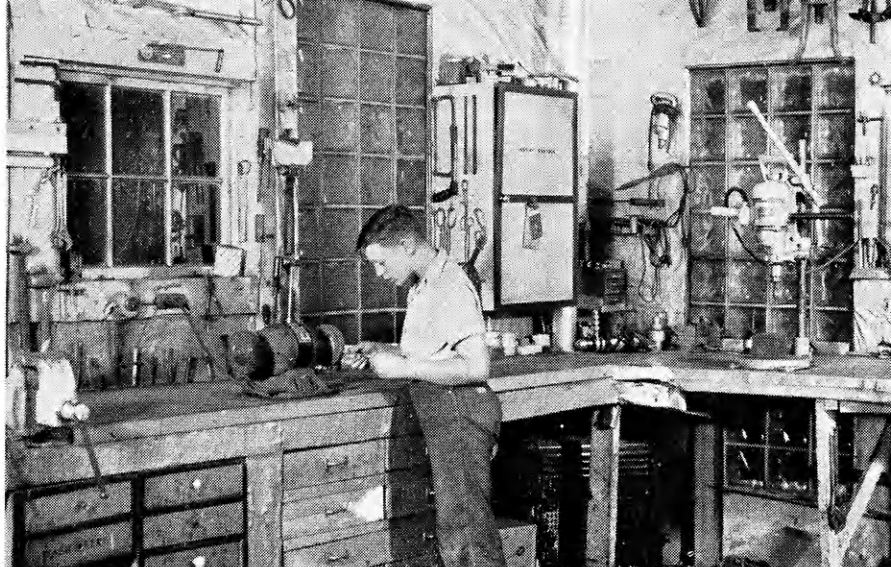


This cabinet will keep tools neat and within reach. With doors closed, the equipment is protected from dirt. The painted outlines show at a glance where every tool belongs.

Buggy Repairs?

Shop

Here is a well-planned farm shop with adequate bench room, lighting, and storage space. It has enough work space around power equipment, tools are in reach.



A water source is desirable, but not necessary, in the shop. Heating can be provided by L P gas, kerosene, wood, or corn cobs. Most farmers have a cheap source of fuel that can be burned in a "pot-belly" stove or oil drums welded together.

Elaborate equipment is not needed to start a shop. Work benches and tool storage facilities can be built from almost any available material. A good collection of such items as anvils, hand tools, vises, bolt cutters, and chain hoists can usually be purchased at auctions.

Budget + Time = Power Tools

Tools a farmer has collected over the years should be enough to adequately equip a shop. A budget can be set up to provide for the addition

of one power tool yearly in order to spread the investment costs over a number of years.

Basic Tools Are a Necessity

A welder, a drill, and an electric grinder are basic tools for the shop. Almost every repair job needs one or more of them.

Most farm shops have an electric drill. Over three-fourths have air compressors, soldering irons, and grinders while about one-half have either an arc or electric welder.

A file box or cabinet for magazines and operators' manuals is a good idea. Welding tables, drill and vise stands, and a portable A-frame hoist can be made from old machinery. Anchors placed near each end of the floor are convenient for pulling and

moving big equipment with a block and tackle.

Because of the flammable materials used, no farm shop should be without a fire extinguisher.

As farming becomes more mechanized, the number of farm shops will increase. Because of its many functions, the farm shop may become known as a farm service building, and recognized as being as important to farming as animal shelters, machine sheds, and hay barns.

Notice the convenience of this farm shop. It's complete with clock, radio, telephone, and calendar. The welder is located away from fire danger and storage is at eye level.



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Cancer Control

(Continued from page 9)

ovaries, kidneys, and intestines are most frequently involved. The name "big-liver disease" is sometimes used in connection with this form of lymphomatosis, since the liver is often greatly enlarged. The diseased region in the organ is a tumor caused by the infiltration of malignant cells.

Leghorn Chicks Used in Experiments

Here at K-State, the experimenters are making use of a strain of 90 percent inbred Leghorn chicks because they are highly susceptible to the visceral lymphomatosis form of avian leukosis. So far, a total of 4,000 chicks and 450 turkeys have been studied. It has been found that birds in their first few weeks of life are more susceptible to the virus than older birds.

In addition to transferring the virus by inoculation, experiments are being conducted where the virus is contracted by a healthy chick from contact with a virus-inoculated bird. These "contact-control" birds are

then put on a range when they are between ten and twelve weeks of age. These birds become more susceptible to the virus during stress periods such as entering the first laying or breeding season.

Work has also been done on freezing and storing the virus. At the Regional Poultry laboratory, frozen virus has been kept for as long as six years at 25 degrees below zero, Centigrade, without any apparent decrease in strength.

So far experiments have been concentrated on a study of the virus and its effect on poultry. Plans are under

way to start work with possible treatments of various chemicals to depress the growth of tumor cells, and to develop a vaccine that can be used as a preventive, in addition to the breeding of resistant poultry strains.

For the future, Mr. Will foresees that the program will develop into a full-fledged cancer research project, since avian leukosis complex in poultry may be similar to cancer in humans. If a vaccine can be found to prevent avian leukosis, then the doors may begin to open for the discovery of a vaccine to prevent human cancer.

MAR CAFE

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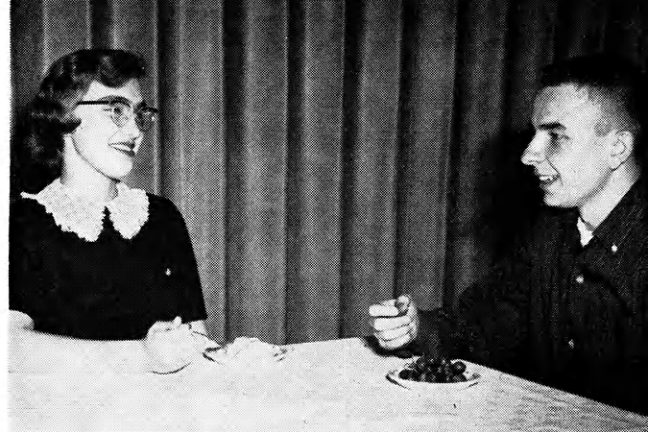
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FORK OR FINGERS?

Know Your Etiquette



These K-Staters demonstrate the proper way to eat bananas and grapes. Eat bananas with a fork at formal dinners.

by Janet Dawdy

DO YOU ever wonder whether the way you're eating a food is the right way? Some foods don't lend themselves to the ordinary knife-fork or spoon eating, but require special techniques. And any food can be awkward if you don't know what you're doing. Here are some tips that may solve your problems the next time you are wondering how to eat an awkward food.

The proper way to eat fried chicken has long been controversial. The main rule to keep in mind is, that if the meal is formal, you should use your knife and fork to take the meat from the bones. The finger method is perfectly okay at a picnic or an informal dinner. Remember, though, that it's good manners to use only one hand to hold the chicken.

Use Fingers for Roasting Ears

Corn on the cob is another common food that can prove awkward to eat. Unless your teeth won't let you, it's best to eat it on the cob, with the fingers of each hand firmly in control at the ends. A long ear may be broken in half. Butter and season only a row or so at a time, never the whole ear at once.

It's not taboo to eat asparagus with your fingers, but since it's awfully messy, you'd better use a fork. Start-

ing at the tip of the stalk, cut the tender part off in bite-size pieces. If the very end of the stalk is hard, leave it on the plate. But don't feel you have to leave it on the plate to be proper.

Very crisp bacon may be eaten with the fingers if cutting it with a fork would scatter bits all over the table. Bacon with any appreciable amount of fat should be cut into pieces using your fork and knife, then eaten with your fork.

Handling Grape Seeds Calls for Care

When you're served fresh grapes or cherries for a salad or dessert, place the bunch on your plate and eat them one at a time with your fingers. It's best to put the whole fruit in your mouth and remove the seeds or pit with your fingers. Then put the seeds at the side of your plate. Don't use a napkin camouflage because this just calls attention to the process and is not considered good taste.

French-fried potatoes should be cut in half unless there is no fork furnished. It's poor manners to hold any food with your fork and nibble off mouthfuls.

To eat French-fried shrimp, pick them up by the tails and dip them into the sauce. Bite off the meat up to the tail, and then discard it.

Always use a fork to eat cake with sticky icing. Dry cake, such as a pound cake or a fruit cake, may be broken into small pieces and eaten with the fingers. Tiny confection cakes are eaten with the fingers, too.

Cream puffs and other cakes with filling are eaten with a fork.

Pickles, radishes, celery, carrots, and olives are all finger foods. You should take them from the serving plate and put onto your own before eating them. Never put them directly into your mouth from the serving plate! You can put small stuffed olives into your mouth all at once. Eat olives with pits in large bites and put the stone aside. Don't clean the stone in your mouth.

You're probably used to simply picking up and eating such fruits as apples, pears, and peaches. This is okay for private snacks, but not for company dinner. If you don't like the peeling, use a fruit knife to peel the fruit spirally. Then quarter it, take the core out, and eat the fruit with your fingers. Use a knife to pull the skin from a ripe peach.

Banana Manners Depend on Place

Bananas should be peeled by hand, laying the fruit on your plate and the peeling at the side. After cutting the banana into smaller pieces you can eat it with either your fork or your fingers. At a picnic bananas can be peeled down, leaving the end of the skin as a protective holder. It's also proper to give a banana to a small child in this manner.

No matter what food you are eating, awkward or not, you can put yourself at ease by watching the host and hostess. They're the ones who are setting the example and you're in the right if you do as they do.

In the

Aggies' World

by Jim Swiercinsky

Dairy Conference at K-State

The annual Dairy Progress Days conference was held January 26, 27, and 28 on the K-State campus.

The conference consisted of meetings of the Kansas Inter-Breed Dairy Cattle council and the annual meet-

ings of the state purebred breed associations. Reports by staff members on research in the dairying field, an address by Robert D. Stewart, secretary-treasurer of the American Guernsey Cattle club, and a panel discussion of contract dairying were on the program for the last day.

Dairy club served dinner the last two days.

Plaque Honors Vanier

A plaque has been placed in the Ag Reading room honoring John Vanier for his donation towards the purchase of furniture for the room. The plaque lists names of the departmental clubs that contributed the other half of the necessary funds.

Mr. Vanier has been a prominent member in both the animal husbandry and milling fields.

Meats Team Tops at Fort Worth

Competing with 14 other teams, the K-State meats team placed first in the meats judging contest held at Fort Worth, Texas, February 3.

Bryan Barr and Bob Lewis tied for high individual honors in the contest, while Ronald Janasek was third high man. Alternates on the team coached by Dr. Robert Merkel were Ronald Sweat and Larry Cundiff.

Livestock Team Ranks High

K-State's livestock judging team placed fourth in a contest at Fort Worth, Texas, January 31. Twenty-one other teams were competing in the contest. James Lonker was seventh high individual. Other members of the team were Frederick Clary, Gary Cromwell, Gary Lafferty, Howard Griffin, and John Forrest, alternate. They were coached by Don Good.

Two New April Contests for F.F.A.

This spring high school vocational agriculture students will be able to participate in a contest designed to acquaint them with the opportunities in the agricultural journalism field.

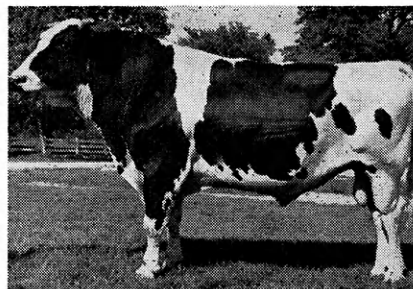
Contestants will interview agricultural specialists at the College and then will write stories on these interviews.

An insect identification contest has been added to the annual Kansas high school F.F.A. judging and farm mechanics events, held every spring at K-State.

Each F.F.A. team will consist of three team members. Each contestant will identify 25 insects, give their host or hosts, and state the nature of their damage or economic value, according to Herbert Knutson, head of the K-State Entomology department.

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Can You Afford Weeds?

(Continued from page 11)

growing buffalo bur and cockle bur plants will be docked when sold.

Some weeds eaten by hens result in inferior eggs.

Weeds make it possible for many insect pests to live by furnishing food when more favored crops are not available. This is particularly true of many species of aphids and flea

beetles. Wireworm, white grub, and stalk borer injury is likely to occur where weed-grasses thrive.

The role certain weeds play in harboring and spreading plant diseases is a matter of growing importance. Many virus and fungus diseases are spread by weeds. The barberry bush, which helps spread black stem rust to grains and grasses, can be regarded as a weed. Wheat is especially hard-hit by rust.

Poisonous weeds such as loco weed, nightshade, larkspur, and marihuana cost livestock producers millions of dollars annually.

Weeds are also responsible for hay fever, poison ivy, poison oak, and many allergies that cost the American public not only hard-earned dollars, but also many hours of discomfort.

Does the question still exist—"Can we afford to grow weeds"?

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KANSAS STATE

AG SCIENCE DAY

10 a.m.



LITTLE AMERICAN ROYAL

7 p.m.

HOME EC HOSPITALITY DAY

10 a.m.

April 11

Saturday, April 11

K-State Campus

Old, But Clean

by Little Joe

Most girls feel that men who kiss and tell are only half as bad as those who kiss and exaggerate.

Aggie's letter to his folks: "I'm getting along fine in everything except school."

The difference between freshmen and sophomores is that when a professor enters a freshman class and says "Good Morning," they answer him. When he enters a sophomore class and says "Good Morning," they write it down in their notes.

English instructor: "Your term paper should be written so even the most ignorant will understand it."

A.H. Freshman: "Yes sir, what part don't you understand?"

Russian slogan: "Vote for the party, the life you save may be your own."

"This college turns out some great men."

"When did you graduate?"

"I didn't graduate, I was turned out."

*The Russian newspaper, Pravda, is running a political cartoon contest. The first prize is 20 years.

Frosh: "Would you call for help if I tried to kiss you?"

Date: "Do you need help?"

Episode in an Army camp barber shop: "You say you've been here before, G.I.? I don't remember your face."

"Probably not. It's healed now."

Definition: The smallest thing in the world. A Texan with all the bologna kicked out of him.

The main trouble with the straight and narrow path is that there's no place to park.

Keep smiling. It makes everyone wonder what you've been up to.

Professor: "Give me an example of how science has helped business."

Student: "Well, look how the law of gravitation has helped promote the sale of suspenders."

When meat rationing first began during World War II, a farmer reported to his rationing board that he had several hundred pounds of beef in storage. To a letter that demanded to know why he had so much on hand he replied: "It was necessary to kill the whole steer."

Junior: "I failed my Ag Micro test."

Senior: "But I thought you had the answers written on the cuff."

Junior: "Yeah, but I put on my chemistry shirt by mistake."

Judge: "Officer, what makes you think this Aggie is intoxicated?"

Officer: "Well, Judge, I didn't bother him when he staggered across the street and fell flat on his face, but when he put a nickel in the mailbox, looked up at the Town Hall clock and said, 'Holy cow, I've lost 14 pounds!' I had to bring him in."

Southeast Girl: "Before we started going steady you promised never to look at another woman."

Ag Soph: "Honey, I thought you knew that was only a campaign promise."

"Madam," said the Aggie standing in the Union cafeteria line, "you're standing on my foot."

"Then why don't you put your foot where it belongs, stupid?"

"Don't tempt me, ma'am."

There is nothing better than farming, nothing more fruitful, nothing more delightful, nothing more worthy of a free man.—Cicero.

INCREASE YOUR AG POWER

Answers

1. b.—Alternating pasture with dry lot feeding.
2. c.—Quantity of silage to be fed daily.
3. b.—36.
4. a.—All polled.
5. b.—Disease-producing agents.
6. a.—When the chicks are one day old.
7. c.—Soybean oil meal.
8. b.—In less quantity.
9. c.—Bacitracin.
10. a.—Packer slaughtering.

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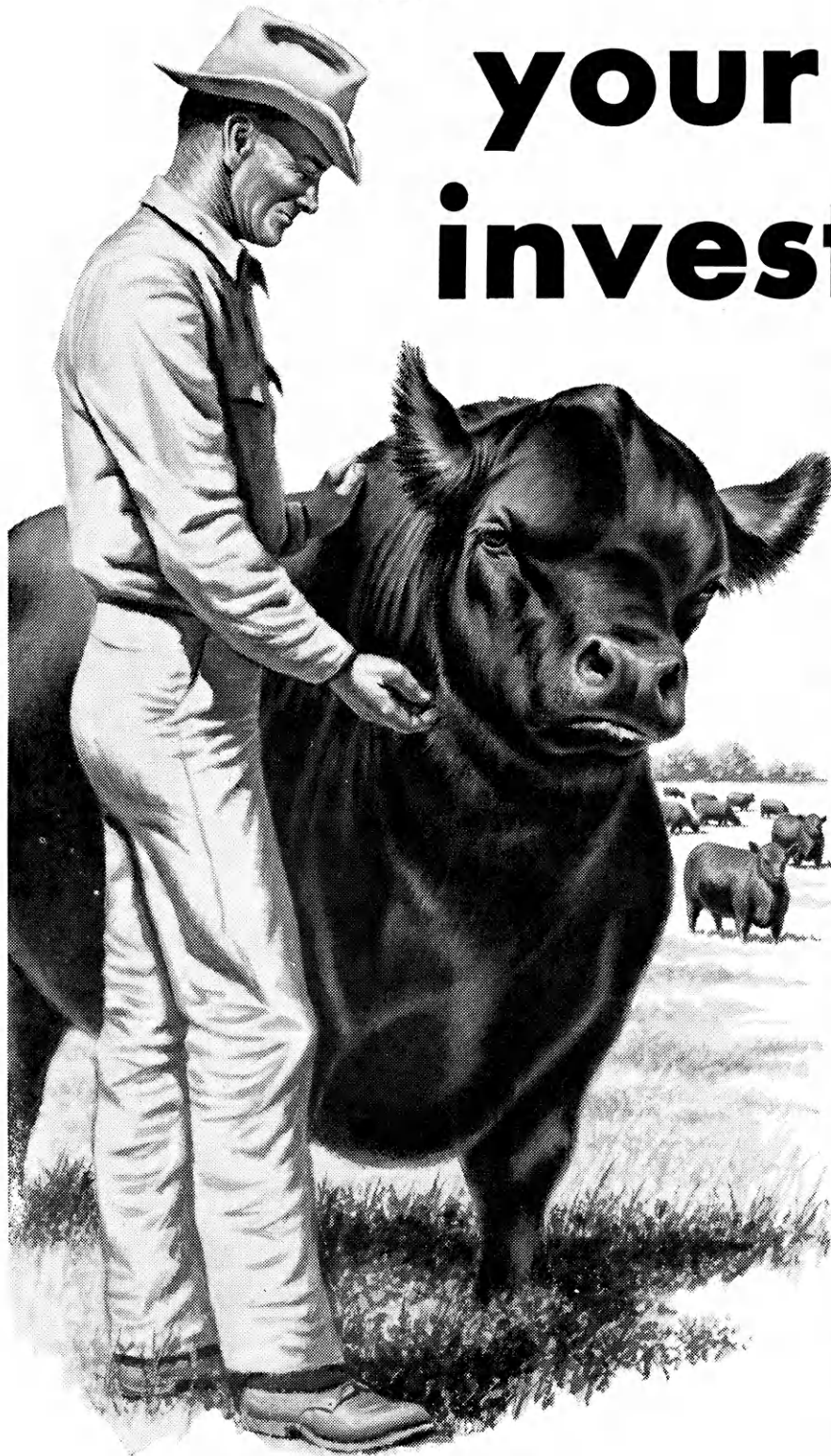
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Most of all, he's a builder of better beef — a sire of deep and smooth calves full of red meat. Yes, calves that usually bring a dollar or two more per cwt. when sold.

Breed the horns off

Angus are the only naturally hornless beef breed. When you cross a purebred Angus bull with your horned cows, at least 95 per cent of the calves will be dehorned. And on the next cross all the horns will go.

But most important: he'll get you a good calf from an ordinary cow to help boost your beef profits.

Breed your herd Black

Today the demand for good commercial Angus heifers and feeders far exceeds the supply. There are just not enough Blacks to go around.

Why don't you breed your herd Black by crossing your red and white cows with a prepotent, purebred Angus bull? Even first-cross Black calves are in strong demand for they possess many of the desirable Angus feeding and finishing qualities. And in about three crosses, you too will have a uniform quality Black herd that will net you more profit.

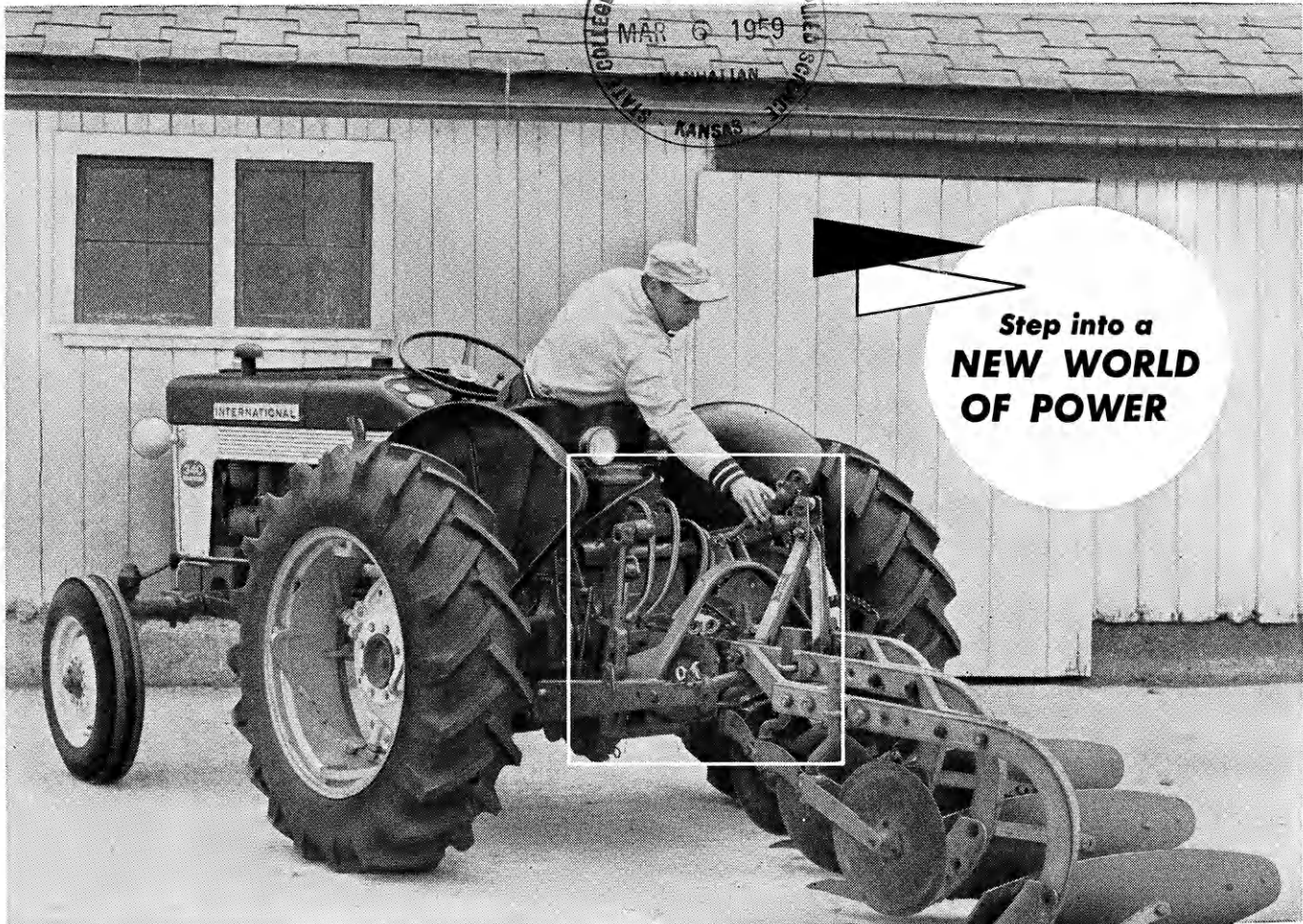
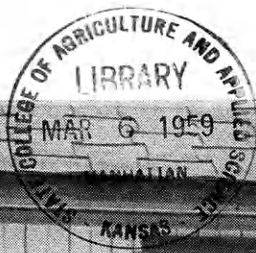
Yes, the big switch is to Angus. So join this parade of progress — this building of better beef for more profit.

Invest in the extra earning power of an Angus bull!

Remember, he'll upgrade your calves, he'll breed off the horns, and he'll breed your herd Black. You are the one who will profit.

American Angus Association

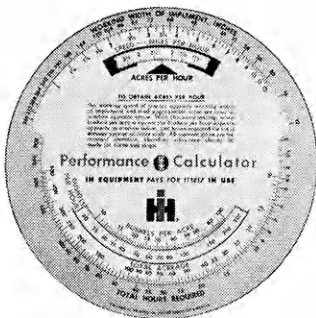
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