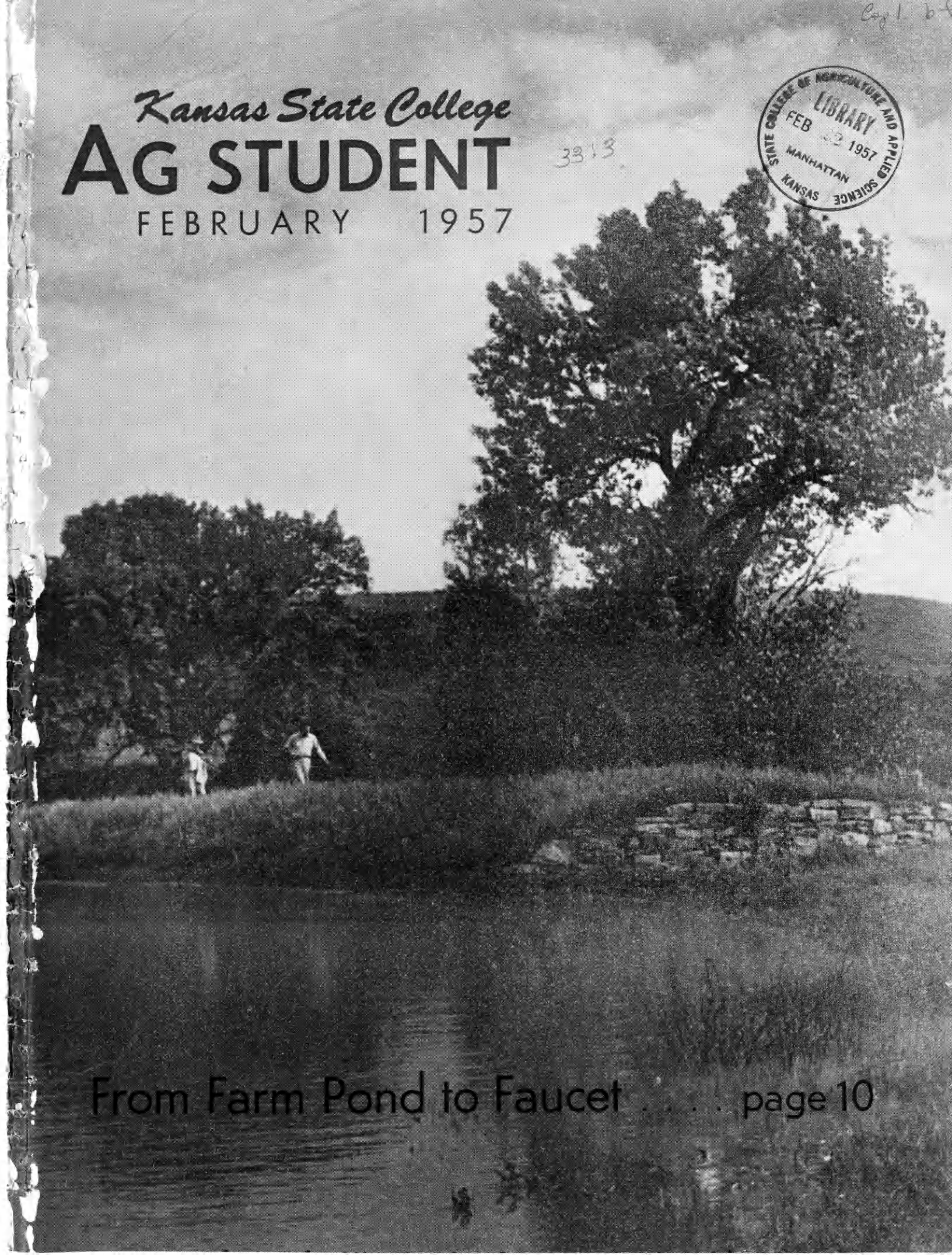


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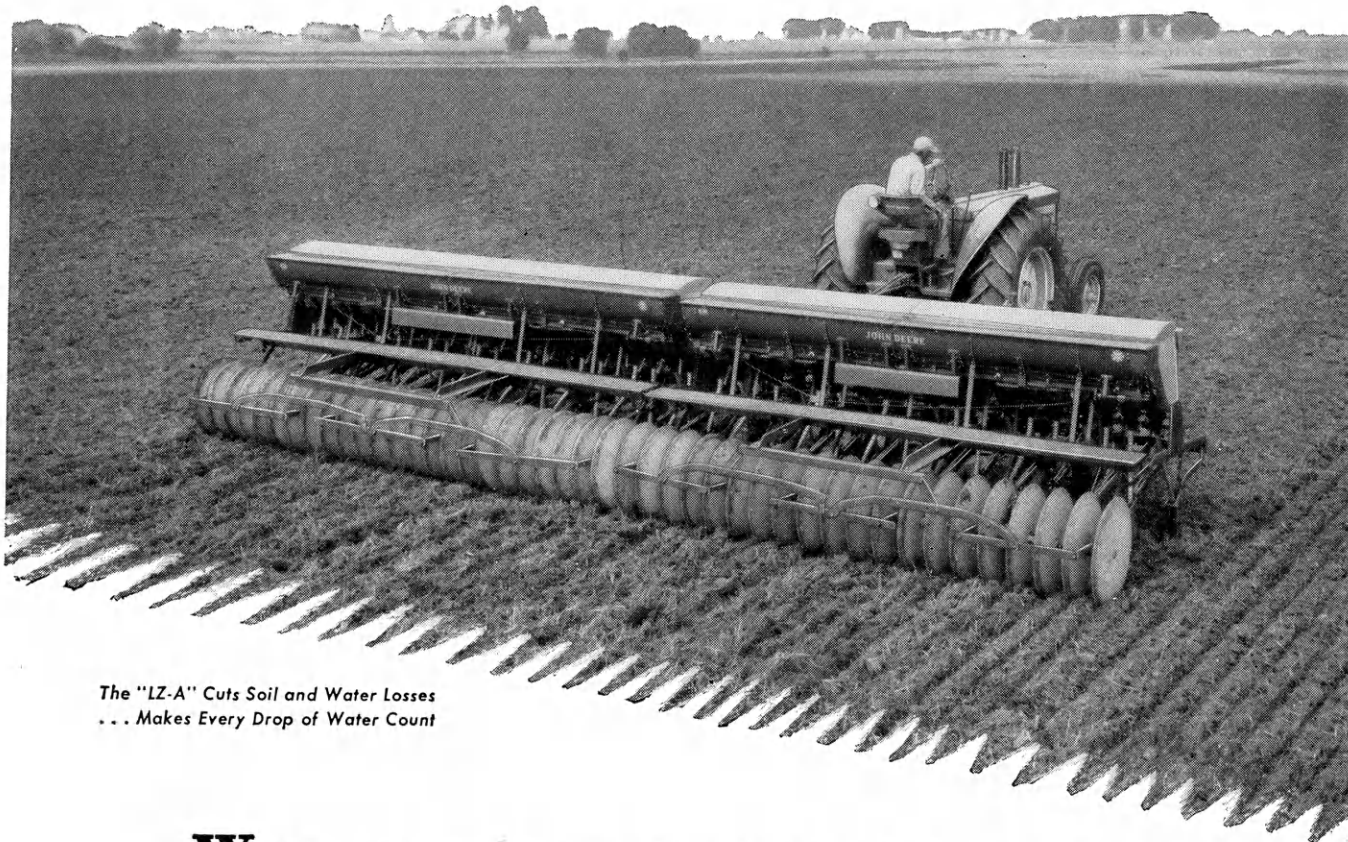
Kansas State College
AG STUDENT
FEBRUARY 1957

3313



From Farm Pond to Faucet page 10

A Drill That Fights Wind Erosion



The "LZ-A" Cuts Soil and Water Losses
... Makes Every Drop of Water Count

WHERE SOIL MOISTURE is at a premium and wind erosion is a constant threat to small grain crops, more and more farmers are turning to the John Deere "LZ-A" Grain Drill as good crop insurance.

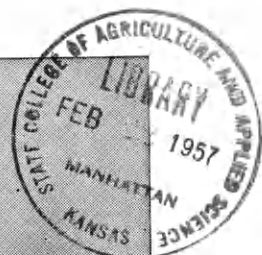
The "LZ-A" plants the seed down where the soil is moist. And because it plants through the mulch without disturbing it excessively, and packs the soil over the seed, the Model "LZ-A" conserves existing soil moisture and, at the same time, reduces wind erosion. Germination is speedier, stooling is more extensive, stands are healthy and uniform, yields are bigger and more profitable, and valuable topsoil is kept at home.

Available as either a Mulch-Hoe Drill or Lister Drill, the "LZ-A" boasts such features as adjustable-gate fluted force-feeds, flexible press-wheel gangs, choice of steel spoke, solid steel, or rubber-tire press wheels, and many others that combine to make the Model "LZ-A" the answer to the seeding problems of the dryland and stubble-mulch farmer.

Write for free folder. Learn firsthand how a John Deere "LZ-A" Lister Grain Drill can help you to bigger yields and more profitable harvests.



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NX 56-11

Prof. Willie Wirehand Says:

The future prosperity of Agriculture will depend primarily on continuing research and education. Electricity has become one of the tools that the progressive farmer must learn to use wisely.



KANSAS ELECTRIC COOPERATIVES, INC.

Room 406, Crawford Bldg.

5th and Jackson, Topeka, Kansas



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)

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Custer
Otis

Corn-Hybrid

K1639
K1784
K1830
K1859
K2234
U.S. 523W

Grasses

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Blackwell Switchgrass
El Reno Sideoats Grama

Oats

Andrew
Cherokee
Kanota
Mo. 0-205
Nemaha

Sorghum-forage

Atlas
Axtell
Early Sumac
Ellis
Kansas Orange

Sorghum-grain

Coes
Martin
Midland
Plainsman
Reliance
Westland

Sorghum-hybrid

RS 590
RS 650

Soybeans

Clark
Perry
S-100
Wabash

Sudangrass

Greenleaf
Wheeler

Sweetclover

Madrid

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

The Kansas Crop Improvement Association

MANHATTAN, KANSAS

Kansas State College AG STUDENT

Vol. XXXIII

February, 1957

No. 3

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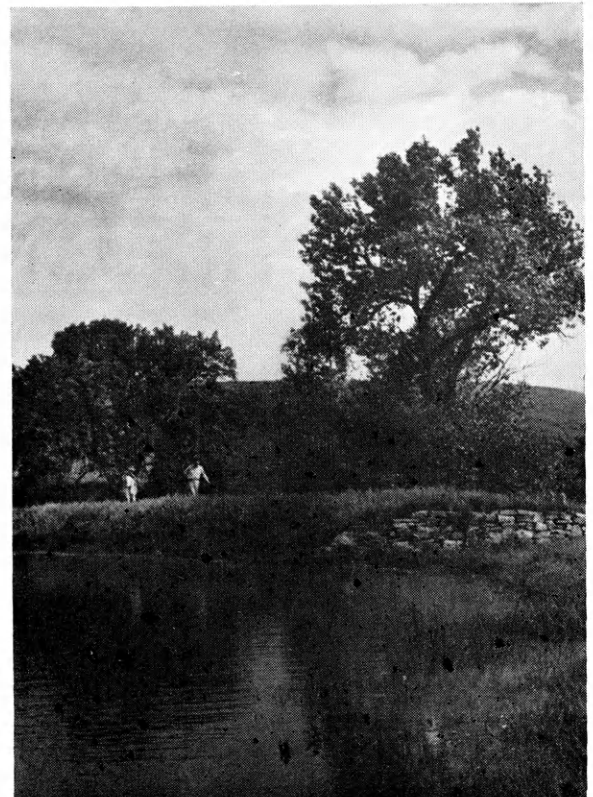
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FEBRUARY 1957



On the Cover

With drought persisting in Kansas and the water table being lowered, it is becoming more of a problem each year for the farmer to find a dependable source of water.

Many farm ponds, like the one shown on the cover, will hold enough water to provide a year-round supply for the farmer's needs. By filtration and purification (see page 10), a farm pond can provide a safe, pure, and dependable source of water for both the farmer and his livestock.

Since shallow wells have started going dry in parts of Kansas, farmers have spent thousands of dollars trying to dig deep water wells and some of these wells will produce only salt water. Trucked-in water is an expense that would pay for a pond purification system in a few months.

Pond water purification is still quite a new idea. The first purification system was installed September 23, 1956, on an experiment farm near Ottawa. Since that time seven systems have been installed or are under construction now, according to Prof. R. I. Lipper, who helped design the system. Leavenworth, Jefferson, and Lyon counties have been the scenes of some of the recent installations.

A pamphlet will soon be available at Kansas State College giving further details on the pond purification system.

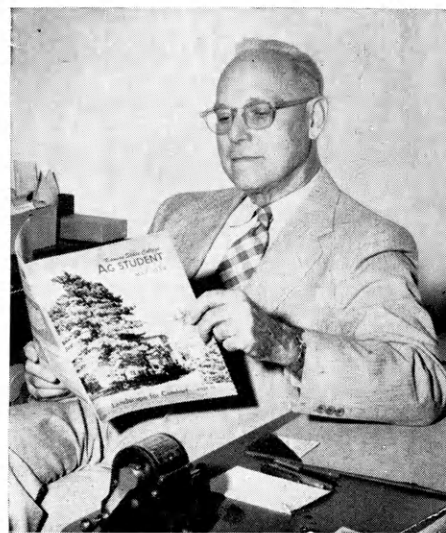
—Gary Yeakley



PHOTO CREDITS: A. M. Guhl, cover, 10; Joe Horton, 8, Kansas State College Extension Service, 11, 11; M. E. Jackson, 8; Doug Tedrow, 12, 13, 14.

Chit Chat

By Clyde W. Mullen, Assistant Dean



Dean Mullen

THE BROCHURE is titled "89th Annual Farm and Home Week." Our College Historian insists that the first "State Farmers Institute" was held on the College campus in 1906. Possibly the Annual Farm and Home Week scheduled for February 4-7, 1957, may be the 51st program at Kansas State College having the character of a state-wide farmers' week conducted here on the campus.

Whether it be the 89th or 51st, here is an educational device that over the years has had much to do with the spreading of the gospel of better farming and homemaking throughout the entire state.

Prospective students sometimes write to ask about a "short course" in agriculture. Since we do not have a so-called "short course" in agriculture, we readily spotlight Farm and Home Week as an event that, within the period of four days, comes near being a short course in agriculture, homemaking, and related fields.

Many of our college students follow the Farm and Home Week program closely and frequently they find time to sit in on a talk or a demonstration in which they have a particular interest.

Always among the registrants of the week are our own college graduates. It may rank, then, not only as a short course, but also a "post-graduate course."

At the close of World War II, the College of Agriculture at Los Banos had been almost completely reduced

to rubble. However, students in the Philippines were unbelievably eager for education. One hundred nineteen students arrived at Los Banos in July, 1945, when the college first reopened. These students put themselves up in abandoned poultry houses.

Within ten years, student enrollment climbed to 4,107. Hundreds could not enroll because they could find no place to live.

Of course, in so short a time, the College was not prepared for so great an influx. "New classrooms became inadequate almost before a building was completed. Students lined the walls. They stood outside taking notes at windows, doors, or anywhere they could prop a notebook."

Here was eagerness for an education above anything we can imagine here at Kansas State College. There was no problem of absences at Los Banos!

We sat with a committee recently where there was strong talk about the inefficiency of pre-enrollment, particularly from the standpoint of staff members who over a period of three weeks must be diverted from their regular duties in order to assist with advisement and in addition the clerical work of making out student schedules. A few instructors object to this "clerical work."

In Freshman Assembly, we tested the reaction of nearly two hundred students, and to the last lad, this group approved pre-enrollment.

Probably the practice that would

have the approval of all faculty folk would be for students to take upon themselves more of the clerical responsibility of developing their own schedules, by line numbers, after they have had the benefit of course advisement from their advisers. We believe that many juniors and seniors in the School of Agriculture did develop their own schedules (after advisement) during our recent pre-enrollment weeks. Freshmen and sophomores may need assistance with their schedules.

Presumably this is no secret. Approximately one-fifth of those juniors in the School of Agriculture who take the English Proficiency tests are coming up with grades of F.

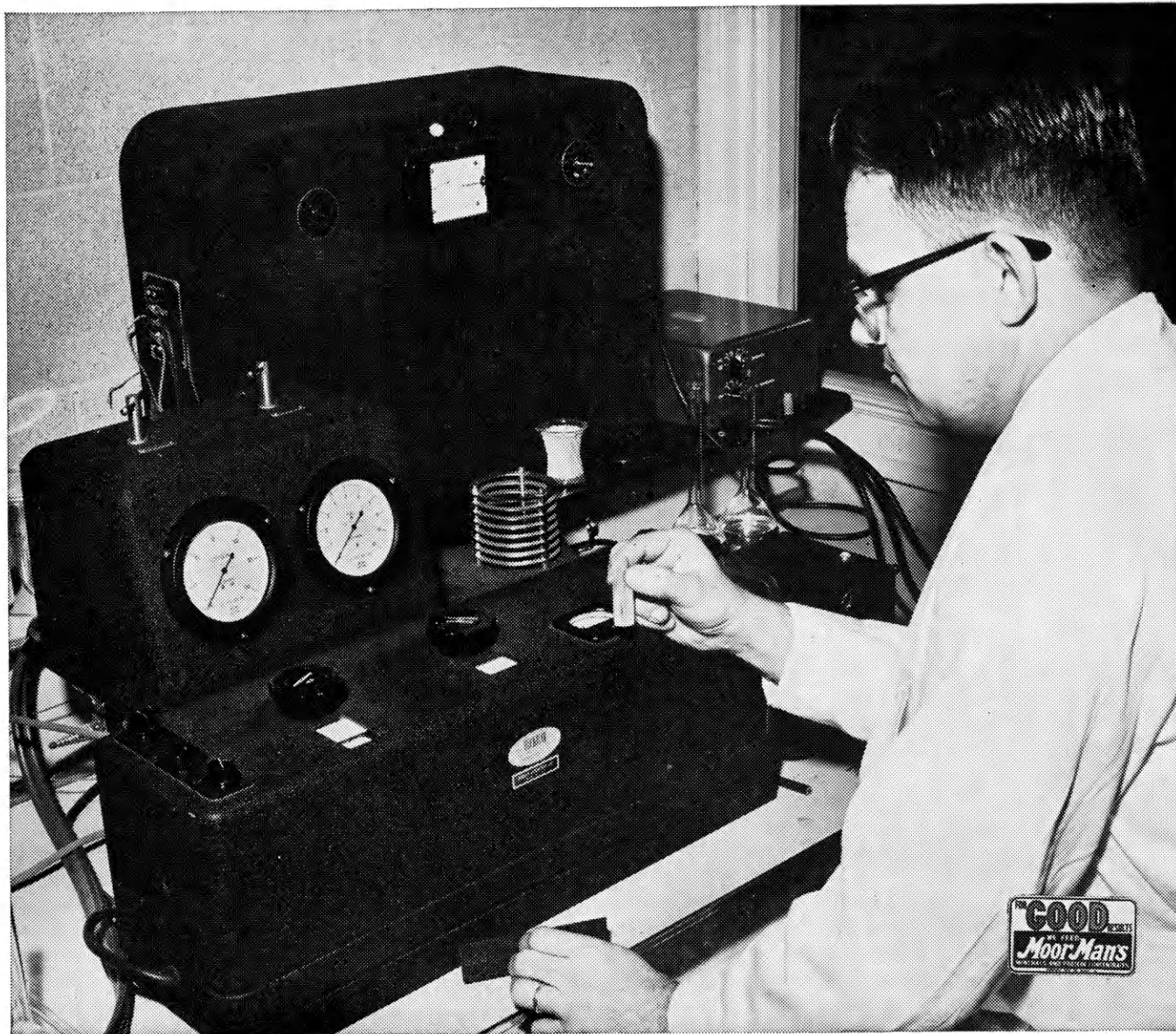
Presumably this is no secret. The School of Agriculture stands at the foot of the list when it comes to percentage of failures in English Proficiency.

Presumably this is no secret. Our boys can talk themselves out of almost any situation, but some of them can't write worth a whoop.

Surprise. Some of the lads who have a hard time in Written Communications go into Agricultural Journalism and make a grade of B. (That's a secret.)

Again the vote of the members of the Catalogue Committee has been not to include a listing of courses by departments in the next Student Catalogue. We had contended that,

(Continued on page 16)



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Not only must we combine the *exact* amount of stilbestrol premix with a likewise exact mixture of mineralized protein and vitamin concentrates, but the quality of that mix must be carefully checked and recorded.

Every 10 minutes during production samples of finished pellets are taken and sent to the laboratory for analysis. After overnight extraction of the stilbestrol from the sample comes a seven-step purification process. Then the *exact* amount of stilbestrol in the sample is measured with a spectrophotometer.

This test procedure *sounds* simple, but in reality is exceedingly complicated. Few chemists are familiar with it because few laboratories are equipped to make it. At MoorMan's, laboratory equipment valued at more than \$3000 was purchased for this purpose only—a \$3000 "sharp pencil" to make certain livestock feeders get greatest gains at least cost.

How vital it is, then, that stockmen use their own 5-cent sharp pencils to keep accurate records of *their* feeding costs—in order to *know* which ration gives them the most pounds of beef for their feed dollars.

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Use Pole-Type Shelters for Spring Pullets

by Joe Horton



This low cost poultry house provides a good place to raise these pullets. When they go into production, nests can be installed or the pullets can be moved to a laying house.

IN A FEW months farmers will begin to house their pullets. Many farmers will use the same old house. They will keep about the same numbers of chickens as usual and have no need for a new house. Many farmers will also decide to specialize and will need a new house for their increased flock size.

There are many types of houses in use today. Some types are the straw loft frame house, the pole type, and the all weather conditioned house. All of these have been adapted to both floor and cage layer operations. There is a good deal of controversy on the merits of each and which should be used. The pole type house is probably the one most generally used today by the person going into the egg business because of its low building and operational costs.

Nesting Systems

Also a great deal of controversy has arisen about the use and merit of the cage layers over floor layers. Nothing very definite in the way of conclusions has been found in Kansas. Some of the floor flocks outproduce caged flocks and vice versa. The most economical nesting system for the ordinary farmer is the floor layer type because you don't have the cost of cages.

The construction of a pole type laying house varies little, but the equipment inside can vary from hand

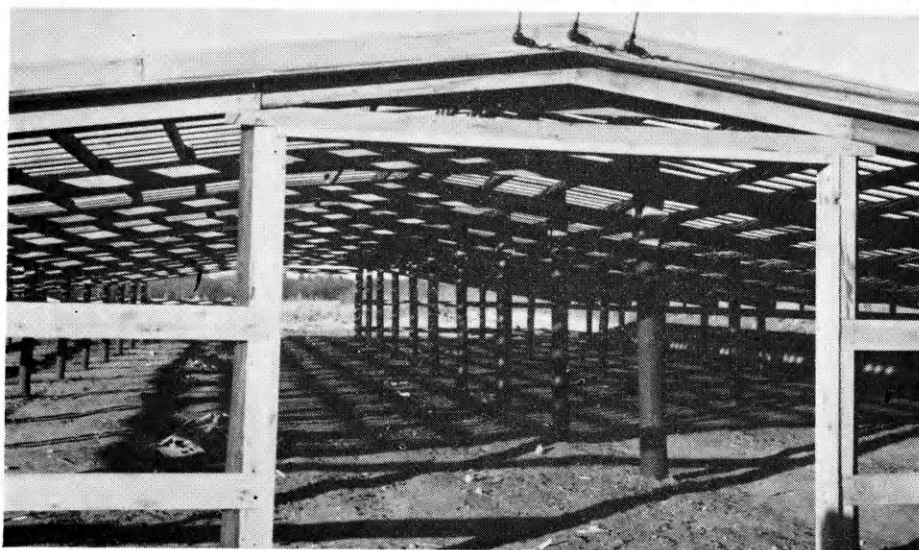
watering and feeding with wooden nests to a house with automatic waterers and feeders and metal nests. This determines largely how much your house will cost equipped. The extent automatic equipment is used can be determined somewhat by how much work you have besides looking after the chickens. If you have a large farm you can probably afford to have automatic equipment. This saves a lot of time and the trend is toward using more of it.

The building of the house is a big job, but not a hard one. The biggest job is setting the poles and getting the building lined up and squared.

Many individuals just cover the sides with a weatherproofed fiber board, but siding, sheet metal, and tar paper can be used. The roof can be covered with many different roofing materials, depending on preference and cost. The type of lighting used in the house may vary, but it should be lighted in order to get higher egg production.

The cost of building such a house varies according to the types of material used in its construction. You can spend about what you want when you build a poultry house, but as a whole, the pole type house using floor layers is the most economical way to house your laying flock in the fall.

This pole type house under construction is cheap to build and can handle large numbers of poultry, since the low building cost enables the farmer to construct a larger house.



CLOUD SEEDING

VS.

Kansas Drought Problem



by Dave Templeton

THE CRITICAL drought situation in Kansas has directed interest to cloud seeding. Grandfather would have laughed at the idea of producing weather as we want it; however, with modern science and research, weather modification has become a subject of importance to the farmer.

Much progress was made during the first third of the 20th century, and although little experimenting was done until 1931, perhaps the greatest result was the realization that man cannot produce rain—he can simply assist in the natural processes.

General Electric Research Laboratories contributed much toward the pioneering of cloud seeding, when they began their research experiments in 1946. The results have caused much controversy over the subject. Experimenters in the field of cloud physics say that they can see no concrete evidence that proves that actual cloud seeding has been accomplished, since it could have rained anyway. Commercial weather organizations, however, argue that through cloud seeding increased precipitation has resulted.

Comparing Rainfall

As a suggested proof to settle this controversy, Prof. L. D. Bark, of the climatology department at Kansas State College, says that one way to show whether cloud seeding is successful is to select two areas, each as nearly the same in climatic conditions as possible. Both areas should have had approximately the same precipitation over a period of years. By seeding the clouds and recording the precipitation in one area, and at the same time measuring the natural rainfall in the other, the value of cloud seeding can be determined.

Professor Bark added, "Today we

can seed a cloud and measure the precipitation, but how do we know that it couldn't have rained that much anyway?"

National Research

Cloud seeding has become a national concern. In August, 1953, President Eisenhower signed a bill establishing an advisory committee on weather control. This committee's duty was to make a complete study of public and private experiments in weather control. This information would determine the extent to which the United States should experiment with, engage in, or regulate cloud

seeding and other weather regulation possibilities.

In February, 1956, the committee asked if it could be granted two more years for further research.

Further research is needed in this field, but the question of the Kansas farmer is, "Can cloud seeding help me in this drought period?"

Perhaps with future developments through science and research, additional rain will be possible in Kansas. Professor Bark says, "Due to the climatic conditions in Kansas, cloud seeding is not going to help us in a drought." He adds, "It may, however, be important for water storage."

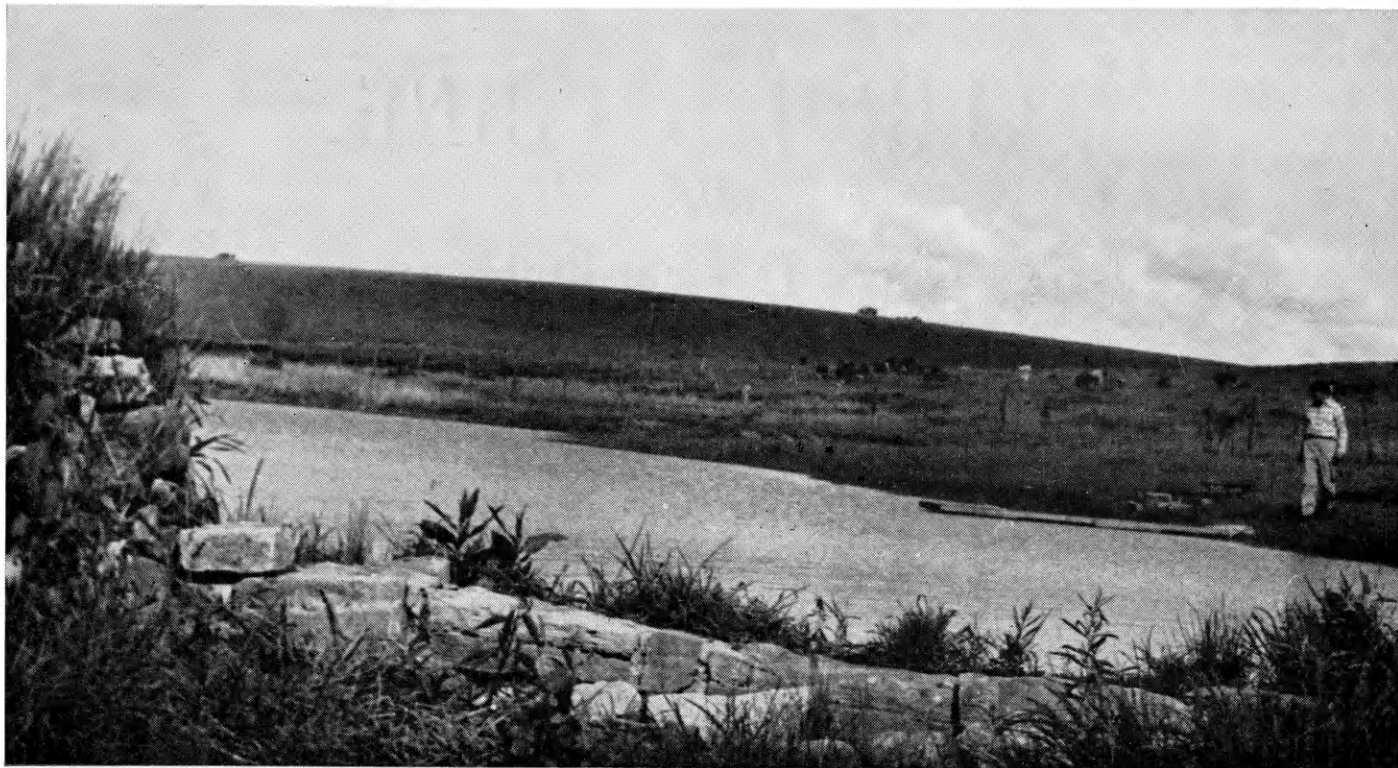
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With the persisting drought in Kansas many farmers are depending on the farm pond to supply an annual supply of fresh, pure water. By filtering and purifying the water in the pond it is possible to provide a safe and dependable source of water for livestock and man.

FARM PONDS

Purified for Farm Water Needs

by Larry McGhee

ONE OF the greatest needs for the average farm is an adequate supply of water for home use and livestock needs. In Kansas and many other western states, a well that will not go dry during a hot, dry summer is a big asset. But, these wells are not too plentiful.

Dr. Thomas H. Lord, professor of bacteriology at K-State, and Ralph I. Lipper, assistant professor of agricultural engineering, have the answer to the water shortage problem, which troubles many farmers. Their answer is the farm pond.

Dr. Lord and Professor Lipper have

perfected a method of purifying pond water through filtration and chlorination, and the method is cheap enough that the average farmer can afford to construct a unit on his farm.

Pond Requirements

The first requirement, of course, is a pond. Ideally, the pond should be located as close to the farmstead as drainage will permit and should be located where there is adequate drainage from good grassland so that silt will be kept out. The pond should be of sufficient size to handle all the anticipated household and livestock

needs, plus surface evaporation that will occur for a suggested time of at least one year or more.

The pond should have at least 10' to 15 acre-feet of water storage capacity. An acre-foot of water is equivalent to an area of one acre covered with one foot of water. The less surface area the better, so the pond should be 12 to 15 feet deep. There are approximately 326,000 gallons of water to the acre-foot.

Filter Installation

The filter should be located downhill from the pond so that gravity

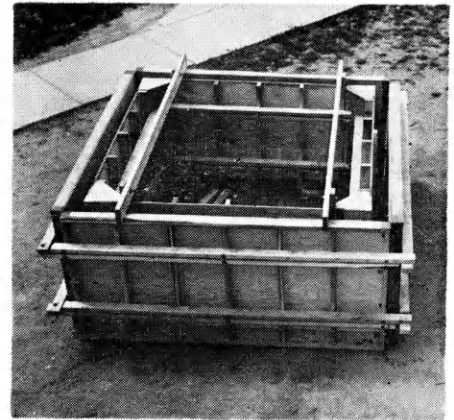
will cause the water to flow from the pond to the filter through a connecting pipe. The first compartment of the filter is the sedimentation chamber. Much of the silt and other particles in the water are removed here by an alum solution, which causes them to stick together, or flocculate, and settle out. Then the water goes into the next compartment, where it passes through sand and is filtered. Minimum depth of the sand should be 18 inches, but a depth of three feet is recommended. The sand should be washed, and fine enough to pass through a 1/8-inch mesh screen.

From the filter, the water goes to a storage reservoir. This reservoir may be specially built, or an old cistern will do the job.

Add Chlorine

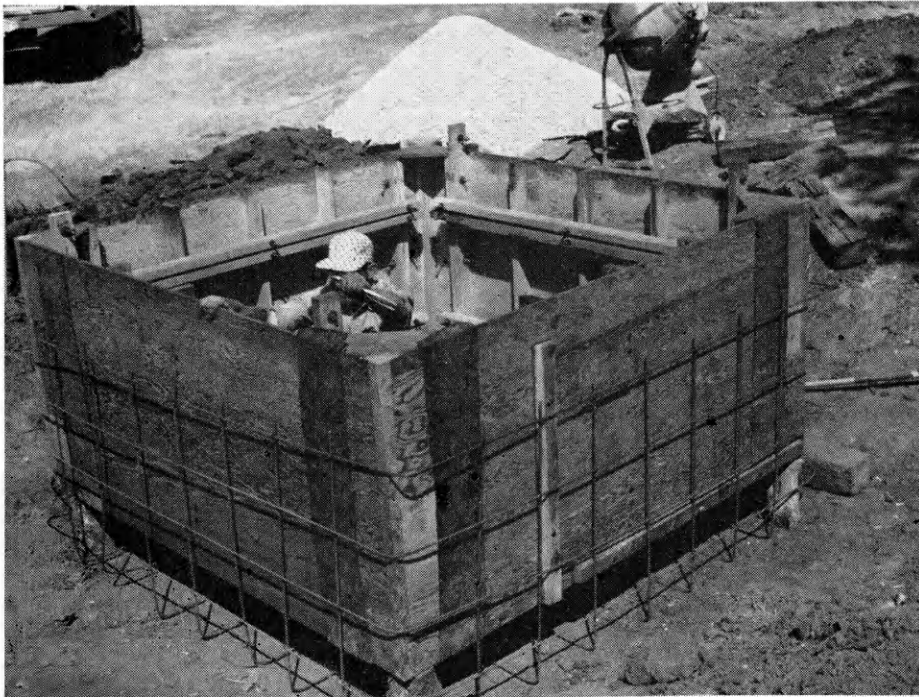
Before the water is safe for drinking purposes, it must be purified. This is done by means of a chlorinator, which is a device that automatically feeds a small quantity of a chlorine solution into the water supply line each time the pump operates. The amount of chlorine solution is from .5 to one part per million parts water. Regular laundry bleach, which is available at most grocery stores, will do a good job of chlorinating the water.

By means of the alum feeding into the pond water in the sedimentation chamber, then filtering the water through three feet of sand, then chlorinating the water, we can have a most satisfactory water supply use-



This is a complete, reusable form for the water filtering system costing about \$325.

Another form on the outside of this one will make up the frame for the water filterer. Some counties are buying these forms and making them available for use in the county.



able for any purpose around the home, dairy, and other farm buildings that may be desired. This method of treatment will clean and purify the pond water supplies so that they are safe for use in modern Grade A dairies, as well as for normal household purposes.

Low Cost

Upkeep is small, requiring only that you scoop off the top layer of sand periodically to keep the water running through the filter, and replacing clean sand when the depth gets below 18 inches. The entire unit should be buried or banked with dirt to within six inches of the top to prevent freezing in the winter.

The average cost of materials for such a filtering system would be about \$325 for the filter and \$250 for the reservoir storage compartment. To this must be added the cost of a chlorinator (from \$100 to \$250, depending on type), the water pump, and the necessary amount of water pipe. Usually some old lumber is available around the farmstead from which you can build the forms for the construction of the filter and reservoir.

Buying lumber for the forms is rather costly; therefore, the idea of making reusable forms for a county or some such area is now being worked out.

Get Further Details

Anyone interested in more details about this water supply system should write to H. E. Stover, Extension Engineer, Kansas State College, Manhattan, Kansas.

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Interpreting

Seed Tags

by Gary Yeakley

HOW MANY farmers know what "Inert 12%" or "Hard Seed 10%" on a seed tag tells about the sack of seed?

Farmer Jones, a Kansas farmer, drives to the nearest elevator and says, "I need some oats seed for this spring, Sam."

"What kind? Cherokee, Nemaha, . . . ?" Sam asks.

"Oh, I don't know. What's good?"
"Well, I've sold quite a bit of Cherokee."

"OK, give me about four sacks of your cheapest."

When he is buying insect spray or feed for his cattle, Jones studies labels to compare prices and contents to get the best buy. Seed tags as well can be compared to get the best seed at the lowest cost.

Seed tags are for the protection of the buyer, but the farmer who cannot interpret the information on the

tag is not protected. A tag on a sack of seed doesn't make it superior, it merely states the true contents in compliance with state and federal laws. Only certified seed must be of higher quality to meet the standards for certification.

Seed Tag Terms

The key to comparing sacked seed is in the definitions of the terms on the tag.

Germination refers to the percent of the seed tested, and found to germinate and sprout. *Hard seed* is expressed as the percent of the seed with seed coats too hard for water to penetrate; therefore, it will not be able to sprout. *Purity* is the percent of whole, undamaged seed. *Inert* means the percent of inert matter or anything that will not sprout, such as hulls and pieces of seeds.

Other crop is the percent seeds of

other plants grown as crops. *Weed seed* means the percent of the contents of the sack that is weed seed. *Nox. weeds* represent the number of noxious weeds per pound of crop seed. Included would be seed of bindweed, Canada thistle, and other objectionable weeds.

Seed tags further specify the variety, crop and the net weight of the sack of seed. Tags on certified seed give the name and address of the grower of the seed, the certification number, the number of the laboratory that tested the seed, and the date it was tested.

Tag Colors

The color of a seed tag gives further information. A regular tag is white or light tan. Certified seed tags are blue or occasionally orange. Orange or yellow tags are used only in years when there is a short seed supply. They mean that the seed does not meet the ordinary certification standards. Blue tagged seed does meet the standards.

Certified Seed

For seed to be certified the field must be inspected by a KCIA (Kansas Crop Improvement Association) inspector for weeds, other crops, and possible cross-pollination. Records on the seed of the crop must show that it was certified. Later, the harvested crop is sampled for laboratory tests on germination and other items shown on the seed tag. The seed, if

(Continued on page 18)

Farmers that know how to read seed tags can quickly recognize the quality of the product in the seed sack. By using certified seed the farmer can expect higher crop yields.

KANSAS CERTIFIED SEED			
Produced and processed under the rules of The Kansas Crop Improvement Association Manhattan, Kansas.			
Grown by <i>John Doe</i>			
Route #1		Manhattan, Kans	
Variety and Crop <i>Ponca Wheat</i>			
Purity	98.16 %	Germination	90 %
Inert	1.81 %	Hard Seed	0 %
Other Crop Seed	.01 %		
Weed Seed	.02 %		
Nox. Weeds	0 Per Lb.		
		Cert. No.	56-100
		Lab. No.	3,000
		Date Tested	8/15/56
		Net Wt.	120 Lbs.
ORIGIN: KANSAS			
All Kansas certified hybrid seed corn must be sealed; Kansas certified seed of all other crops bearing this tag must be sealed unless obtained direct from the grower. Save this tag and the seal, if you intend to apply for certification.			

Before Storing—

Mothproof Your Clothes

by Carol Ward



Carol Wilmore, EEd Jr, knows that sweaters rinsed in a solution of EQ-53 will be safe from insect damage during summer storing.

HAVE YOU ever taken a favorite sweater or woolen garment out of storage only to find it ruined by moths? With spring just around the corner, now is the time to make sure the garments you store this summer won't be ruined before fall.

A few garments now come already mothproofed with such protectorates as Mitin. Dry-cleaners asked about these products reported that they held up quite well through several cleanings and washings, and were generally effective.

If a garment has been treated with a mothproofing agent, this information will appear on the label. Unfortunately, most clothes don't come already protected, so it's up to the homemaker to insure their safety.

Most commercial dry-cleaners have mothproofing treatment that provides maximum protection. The average charge made for a sweater is about 75 cents. Of course, the price varies with the garment.

Actually, if proper storage methods are used, garments can be kept mothproof at home without professional treatment. The consumer education department of the Household Finance Corporation has a list of suggestions for storing woolens in its booklet, "Your Clothing Dollar."

Storing Procedure

First: Wash or have dry cleaned all woolen garments before storing them. Moths and carpet beetles attack soiled spots first. Also brush

clothes thoroughly, turning the pockets and cuffs inside out, so that all parts of the garment will be exposed.

Second: Insecticides, which are available for home use as mothproofing agents, can be used. Some can be sprayed on, and others can be used in liquid form in wash or rinse water.

Third: Paradichlorobenzene and naphthene are effective moth damage protection when used as directed. They are available in ball, crystal, and flake form for placing in storage containers.

Clothing must be stored in sealed airtight containers (chests, boxes, or clothing bags) to make this type of protection valuable.

Those few lucky homemakers who have cedar chests or cedar closets like to store their favorite woolens in these. Besides providing moth protection, cedar containers lend a fragrant odor to the garments.

Protectorants

One of the products, which can be used to protect woolens as you wash them, is EQ-53, according to Mrs. Ethel Self, extension specialist in home management at Kansas State College. EQ-53, which is sold under various

(Continued on page 14)

COMING SOON

THE

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April 6

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Drawing, 12:00 p.m., February 23

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CERTIFIED GEMOLOGIST
AMERICAN GEM SOCIETY

Mothproofing

(Continued from page 13)

trade names, contains DDT and other ingredients.

This product can be used in the wash water. Directions for use appear on the brand labels. It is effective only until the next washing or dry-cleaning, and needs to be renewed each time.

Clean woolens can be treated by just rinsing them in the EQ-53 solution.

When the garments are dry, they

will have no EQ-53 odor. The product does not cause shrinkage or matting of fibers.

With three choices of ways to protect woolens—built in, professional, and home mothproofing methods—there is no reason why this winter's clothes can't be as good as new when they are unpacked next winter.

A drunk decided to shave. As he was poised with his razor, ready to start, the mirror fell unnoticed to the floor. "Just my luck," he said, staring at the empty wall. "I cut my head off."

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No Odor

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1219 Moro

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Kansas State's Best Dressed
Men and Women
Featuring—*

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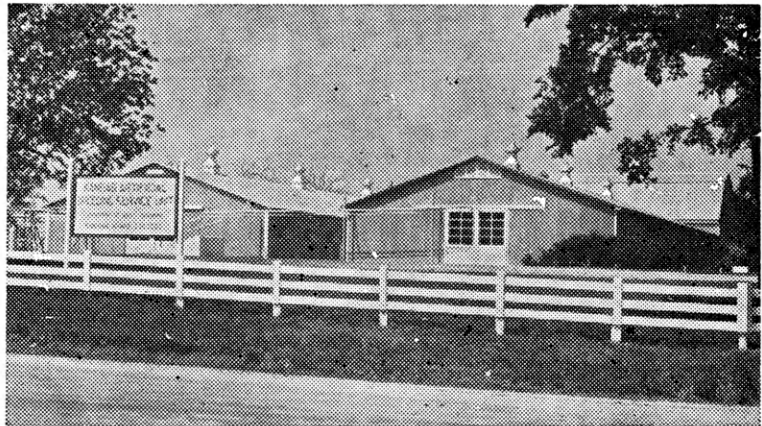
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THE MEAT-TYPE HOG

In Demand

By *Roe Borsdorf*

OVER THE last few years the housewife has turned modern and started demanding a meat-type product instead of the old fat, lard-type hog. This demand was the needed stimulus for the production of more meat-type hogs.

The meat-type hog is not a bacon variation of the lard-type hog, but is a distinctly new type based on a high percentage of the lean cuts of pork. The most distinguishing feature of this hog is superior muscular development.

Demand Less Lard

The housewife's continuous demand for the meat-type hog has influenced breed associations and pork producers to set up a program having a uniform standard for certifying meat-type hogs.

This program has been set up in order to identify superior breeding animals within each breed that are producing offspring of an acceptable meat-type hog at the desired market weight.

Not only have the producers stressed the weight and type of the litters to please the housewife, but also the rate of growth and the number of pigs weaned per litter.

The outward appearance does not necessarily determine the desirability of the meat-type hog, as accurate results are obtained by measuring the length of the carcass, the backfat thickness, and the area of the loin eye of the hanging carcass.

Research has shown that these



It's the housewife who makes the final choice between meat and lard-type pork products. The trend is definitely toward meat-type pork because the product the housewife picks will have less fat per pound, which gives her family more meat for each budget dollar.

measurements are reliable indicators in the selection of desirable lean meat carcasses for the housewife. Experiments have shown that when the carcasses measure in their respective areas in the chart they tend to pro-

duce a higher percentage of the lean cuts.

In measuring the backfat thickness of a carcass the average of three measurements is taken. The measurements are: opposite the first rib, op-

posite the last rib, and opposite the last vertebra. In measuring, the rule should always be kept at right angles to the back in order to obtain a correct measurement to the outside of the skin.

The carcass length is measured with a steel tape, which measures from the front of the aitch bone to the front of the first rib where it joins the vertebra.

The loin eye is measured between the 10th and 11th ribs. The measured area of the loin eye is traced on paper, and then measured with a planimeter.

The planimeter is an instrument that accurately measures the area of any flat form.

Set Standards

The breed associations have set up three certification programs now in operation. They are: certified litters, certified sires, and certified matings. These programs were set up to increase the number of meat-type hogs for future household use.

In order to qualify for a certified litter, eight pigs must be weaned from each litter that weigh 275 pounds at 56 days, if from a gilt under 15 months of age. If the sow is over the 15 months, the eight pigs must have a total weight of 320 pounds when weaned.

Two of the pigs from the litter must be slaughtered the same day at

an approved slaughter plant, and both must meet all of the meat-type hog carcass requirements in order for the litter to become certified.

Each of the pigs must weigh 200 pounds at 180 days of age, and if slaughtered at an earlier age, their weight must be adjusted to 200 pounds. Two pounds is added to the live weight of each pig for each day they are under 180 days.

Certifications

To become a certified sire, he must have sired five certified litters. These five litters must be from five different sows, only two of which can be full sisters or dam and daughter.

A certified mating is a repeat mating of a boar and sow that have produced a certified litter.

Then there was the girl penguin that met the boy penguin at the equator. After a brief and charming interlude the boy penguin returned to the North Pole, and the girl penguin to the South Pole.

Soon a telegram arrived at the North Pole. It said, "Come quickly—I am with Byrd."

Husbands used to ask their wives: "What's cooking?" Now in this modern age they ask: "What's thawing?"

Weight	Loin area (minimum)	Length (min. and max.)	Backfat thickness (min. and max.)
180-199 lbs.	3.5 sq. in.	28.5-31.5	1.1-1.6
200-214 lbs.	3.75 sq. in.	29-32	1.2-1.7
215-230 lbs.	4.00 sq. in.	29.5-32.5	1.3-1.8

In order to be certified, pigs must meet these requirements within the given weights. The requirements have been set by breed associations adopting certification programs.

Chit Chat

(Continued from page 6)

since General Catalogues are not available for all students, the students were entitled to know, by departments, at least the names of courses offered by each department. This is important in making out electives. Our little vote was snowed under.

Arguments were that students can always find a copy of the General Catalogue in offices of advisers, departmental heads and deans.

A survey among girls of an eastern university seemed to reveal that only seven percent of them wished to marry farmers; 16 percent of the boys planned to become farmers. That isn't going to balance, if college-trained farmers insist on marrying college-trained gals. Betcha at KSC, our beautiful young ladies draw no such line of distinction. Try to find an Aggie who has been turned down by a KSC femme, whether he be farmer or no farmer.

Joe: "Cigarette cough?"
Moe: "No, that was me."

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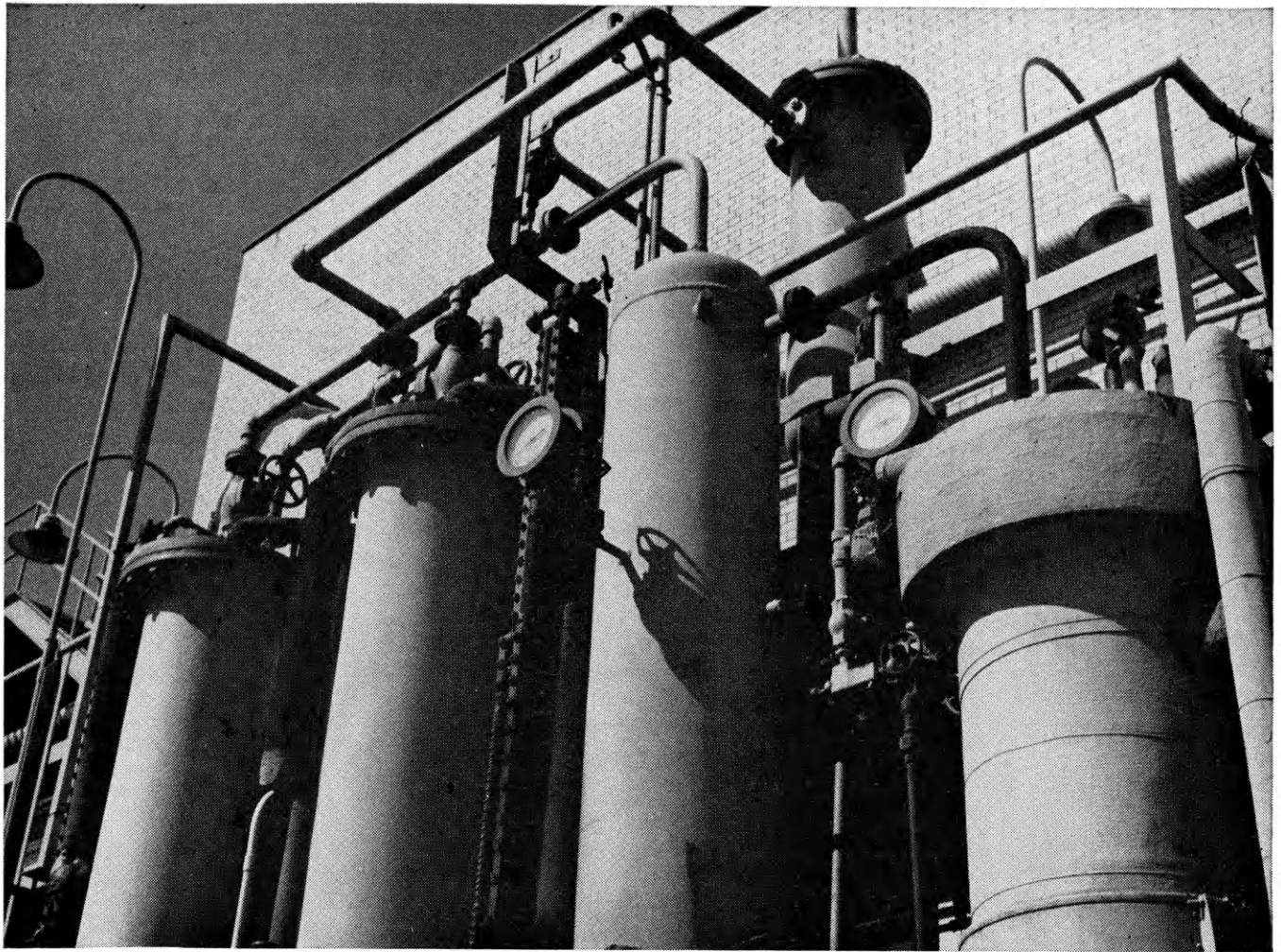
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Like to try on this man's shoes?

DONALD PLAUTZ belongs to the group of engineers at Standard Oil's Whiting, Indiana, Research and Engineering Laboratories who are fitted by training and talent for a process engineering career. His fraternal affiliations include Phi Eta Sigma, Tau Beta Pi, Phi Lambda Upsilon and Theta Tau.

B.S. (University of Wisconsin); M.S. (Ohio State); Ph. D. (University of Illinois), all in chemical engineering, Dr. Plautz has utilized this training in carrying out varied responsibilities on development of the Ultraforming

process. He has operated pilot plants, correlated data, prepared process manuals, and assisted in the initial operation of new Ultraforming units.

Ultraforming is an intricate refining process which Standard invented, patented and makes available to other refiners, as licensees, to provide increased yields of high octane gasoline.

Perhaps you're not ready to try on this man's shoes yet, but Standard Oil offers outstanding career opportunities to college men in almost all fields of science and engineering.

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Seed Tags

(Continued from page 12)

it passes the tests, is cleaned, bagged, sealed, and tagged for sale.

Certified seed is a safe buy. Non-certified seed may be comparable, but good-appearing seed won't necessarily germinate or develop true to the type of that variety, unless tests prove that it will.

It is smart farming to compare and consider the information on seed tags to get the best seed for the least money.

Late to sleep
And early to rise
Keeps your roommate
From wearing your ties.

KCIA Standards for Certification					
Crop	Min. purity	Max. inert matter	Min. germination	Max. other crop	Max. weeds
Alfalfa	98%	2%	85%	.05%	.1%
Sorghum	98%	2%	80%	10/lb.	*
Corn	99%	1%	90%	.1%	none
Oats	98%	2%	85%	*	10/lb.
Wheat	98%	2%	85%	*	10/lb.

* Excess amounts judged by KCIA inspector.

These are the certification standards of some common Kansas crops. Farmers are assured that seed sacks bearing blue certification tags will meet these maximums and minimums.

A smart-alec engineer signed up for ROTC, and the first thing he did was fail to salute the commanding officer. "Do you realize who I am?"

the officer fumed. "I am in command here. I command a thousand men." "You gotta good job," the engineer answered. "Don't louse it up."



The FARMER knows he is a BUSINESSMAN

He needs to know feed prices, when to buy, when to sell, what improvements are needed, utilize his machinery and handle his hired help.

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