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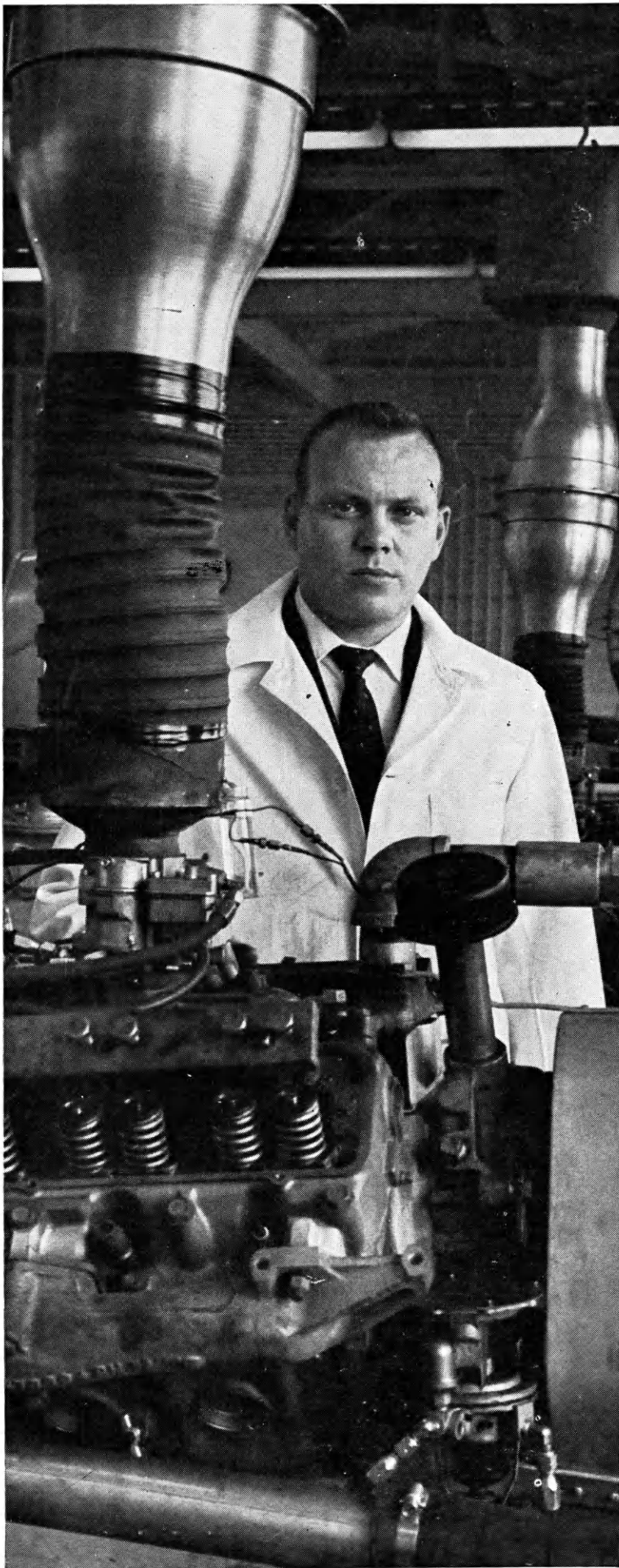
Kansas State University

A
KANSAS STATE UNIVERSITY
AG STUDENT

DECEMBER 1961



Can Farmers Cope With Fallout? page 10



*Good reasons why I
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by Don Anderson

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KANSAS STATE UNIVERSITY AG STUDENT

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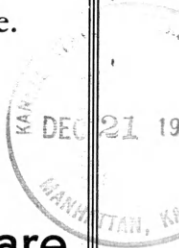
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Editorial . . .

IT ISN'T going to be the farmer alone who will solve the problems we have in agriculture. Since these adjustment problems affect the broad public, decisions will be made by the society as a whole and enforced through government action. Past legislative action and government programs are evidence of this fact. The pressures of the people, farm and nonfarm, put into action by the government have prodded and manipulated the farmer into his present position.

Therefore the question arises, should not the nonfarm as well as the farm people be properly educated and informed of the problems in agriculture? Are we bridging the gap in understanding between farm and nonfarm groups?

Agricultural education institutions have played a key role in increasing farm production and efficiency. Today, in addition to helping to maintain these increasing rates of production, should not, for instance the land-grant institutions and the extension service devote more time and effort in trying to solve the adjustment

problems in agriculture? Don't educational institutions actually have a dual responsibility?

The farmer needs a better understanding of agriculture as an industry and its relationship to the rest of the economy. Farm people need to understand the limitations of what they as independent operators can do to improve their conditions. They must also understand the need for industry-wide approaches to the solution of many agricultural problems.

Nonfarm people must have an understanding of the vital role of agriculture in the U.S. economy—of the trends in agriculture which affect the welfare of the nation. They also need to understand the reasons for public policies that deal realistically with the basic causes of the farm problem. The gap in understanding between farm and nonfarm groups must be bridged in order to produce a favorable climate for constructive public discussion and action on the problems of agricultural adjustment. People better informed and educated in the problems facing them will be better able to work out solutions for them.

Norman Werner

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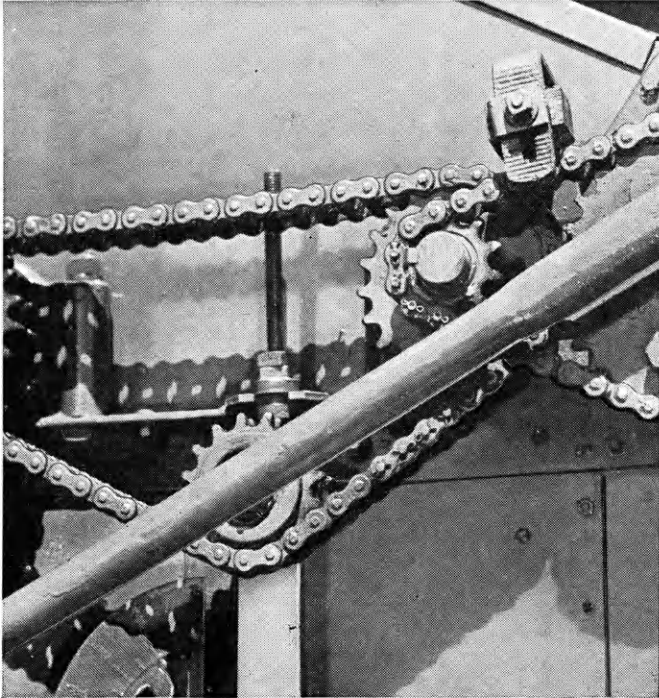
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
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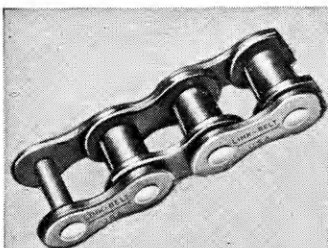
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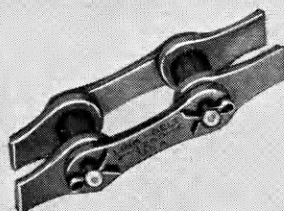
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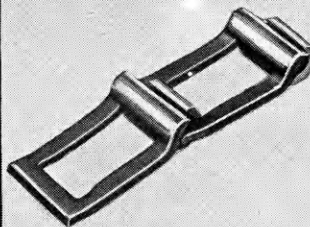
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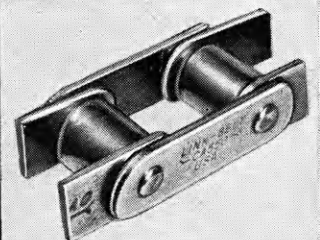
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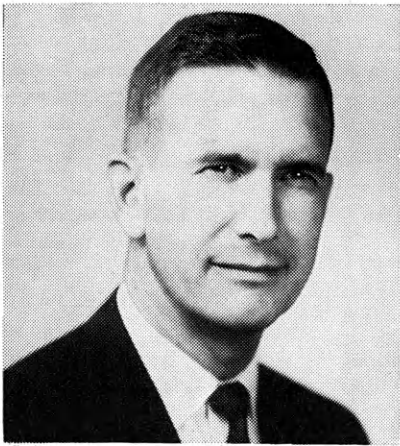


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From the Dean's Office

by Dean Carpenter

EVEN IF I have been on the Dean's side of the Dean's desk only a few short months, I have a new and greater appreciation for the great work of Dean C. W. Mullen and the other deans and personnel who, throughout the years, have worked in the Dean's office. It is not that students are unreasonable in most of their requests and problems, but the opportunities to assist students in this position are tremendous.

While attending Kansas State University as a student, I, too, had occasion to visit with the Dean in his office (and sometimes at his "request"). I recall the time when my on-campus parking tickets had been called to his attention. He listened closely to my explanation. I can't remember his exact advice, but I do remember that it was not a long lecture. I left the office saying to myself, "That's the last parking ticket I will receive on this campus."

As a student, I was not aware of the number of faculty committees on which the dean served, nor of the many other areas of his responsibility, including the

correspondence with students and prospective students. The work in this office is challenging and rewarding. As I began my teaching work in a rural elementary school in 1938, I have learned some of the rewards that come to teachers and others who work with youth.

Final enrollment in the School of Agriculture this fall is 708. This is up seven from last year. The fall enrollments in the School of Agriculture had been decreasing since 1956. With the many new jobs becoming available in the field of agriculture, we hope that this year's slight increase in the number of agricultural students is an indication that KSU will be able to fill more of the demand for trained agriculturists.

Opportunities Unlimited to Higher Education was the theme of the program that was presented recently on the Union Pacific educational car to approximately 2,500 Kansas high school students. Dean Wilson, Dean Leasure, Dean Hoffman, and other faculty members boarded the car at Sharon Springs November 27 and spoke to students and parents emphasizing the value of obtaining additional education. Personnel on the team were changed from time to time in order for faculty members to meet other obligations. The last program was presented at Hiawatha on December 8. The car program helped to celebrate the centennial of the Land-Grant Colleges and Universities.

Teams from the School of Agriculture here at KSU have continued to make outstanding records this fall. At the Kansas State Fair the Dairy Cattle Judging team placed first out of ten teams. The Livestock Judging team placed fourth, ahead of 19 others, the Meats team placed fourth out of 18 teams, and the Wool Judging team placed third, with eight teams competing at the American Royal.

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Kansans Grow Castorbeans on Idle Acres

by Darrell Garner

KANSAS farmers may soon be growing a specialty crop—castorbeans. A high yielding, non-surplus crop, the castorbean might be the crop you will grow on those idle wheat and grain sorghum acres.

Present castorbean production in the U.S. is not meeting the demand for this multipurpose crop. Future market opportunities appear good due to the use of castor oil in medicines, lubricants, dyes, and foodstuffs.

Castorbeans have been grown in Kansas since the Civil War, but idle acres and the falling prices of other crops have stirred the present interest in the crop. Increased plantings, from 1700 acres to about 4000 acres in Southwestern Kansas, indicate the increasing popularity of the crop. Only about 16 percent of the total demanded in the U.S. is produced in this country. It would seem to be a good idea to expand acreage, but our total requirements could be met by putting an additional 165 to 200 thousand irrigated acres into production. This would scarcely put a dent in the total acres laid idle by government programs.

Since relatively few acres can be planted without creating a surplus, castorbeans are a specialty crop. They

may be profitable to a limited number of farmers but offer no major substitute for wheat and sorghums. The crop is grown on a contract basis, and this contract should be obtained from the processor before planting.

Western Kansas is adapted to castorbean production because the low humidity and low rainfall of the area are less favorable to development of insects and plant diseases. The plant is not drought resistant and dry periods of more than two weeks may cause severe damage and reduce yields.

Light Irrigations Are Best

Light and frequent irrigations of fertile, well-drained soils are necessary; however, the plant cannot tolerate too much water. In 1960, yields from some irrigated combine varieties at the Garden City experiment station exceeded 2,000 pounds per acre while dryland yields from experimental fields in South Central Kansas have ranged from 294 to 1352 pounds per acre. However, dryland yields vary according to moisture, soil conditions, variety and location.

Thirty to 40 pounds of nitrogen per acre may be profitable on dry-



Castorbeans is a specialty crop that has a ready demand but lacks a large market.

land while irrigated ground may need double this amount. A soil test should be used to determine the amount of potash and phosphate needed. Castorbeans are slow coming up, so the seedbed should be free of weeds. 2,4-D is toxic to the plant and should not be applied. Otherwise cultivation and weed control proceeds much as in any rowcrop.

Special equipment is needed for planting and harvesting castorbeans. Conventional listers and planters may be modified with special seed plates which are thicker and have counter-sunken holes to protect the soft oily seed. However, a special planter is desirable because it prevents crushing of the seed and only a few crushed seeds may mean clogged seed plates. This cost is not too great but harvesting equipment is expensive. Since combines with special header attachments or special stripping machines must be used, it may be desirable to hire a custom operator for harvest. You should check to see if such an operator is in your area before planting.

Castorbeans Are Poisonous

While the plant will not establish itself as a weed, the seeds are quite poisonous. Even a few beans can condemn a carload of wheat for human consumption. This is a problem in a cropping program and precautions should be taken to insure no castorbeans are left in trucks, bins or loaders.

After the castorbeans have been harvested this fall you may get the urge to plant some next spring. Remember this before you plant. Castorbeans are a specialty crop which grows best under irrigation in semiarid regions, and you should have a contract before planting.



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Enjoy Hunting

But—Respect Your Gun

by Neil Dowlin

1. There is no fun in a hunting trip that ends with an accident before it gets started. These hunters check their guns before taking them into a car or a building.
2. Crossing a fence can be tricky, and dangerous too, for the hunter who tries to carry his loaded gun over the fence. In this case, one hunter holds both guns while his partner crosses over. A lone hunter can place the gun across the fence with the muzzle away from the point at which he intends to cross.
3. Now that they have safely crossed the fence it's time to load up and keep an eye peeled for game. Will they remember to keep the safety on until they are ready to fire?
4. Following another hunter is not done by the hunter concerned about safety! Walking abreast gives you open space on one side and to the front in which you can draw a bead. Shooting over the other guy's shoulder is unsafe hunting.
5. Before you climb a steep slope, jump a ditch, walk a log, or otherwise use unsure footing, you need to protect yourself,

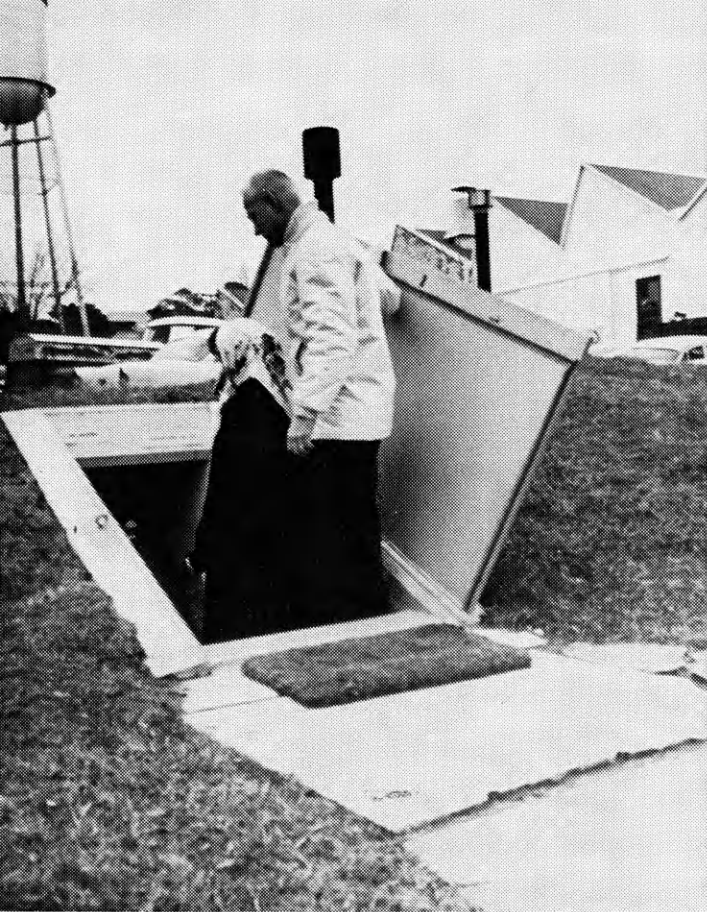




and others too, by unloading your gun. Carry the gun so you can control the muzzle direction, even if you stumble.

6. Neither man seems to realize that this rock or any flat surface may deflect the slug. The stray bullet may then hit livestock or buildings in the vicinity. Remember, a .22 caliber slug may travel up to a mile in free flight, so use it wisely.
7. **LOOK OUT!** If a twig trips the trigger of the lead man's gun, the man behind is sure to stop the slug. When pushing through brush or trees, better keep the gun in front of you and pointed up. The best thing to do is to avoid such situations. At least unload the gun if you must go through these places.
8. An eager hunter will often sight a gun on an object to get the feel of the gun. Shooting at transformers and insulators destroys property and is much the same as killing a farmer's cow. Sighting a gun on buildings and cars endangers the safety of any person inside them. The point to remember is just don't aim at anything you don't intend to kill.
9. Flushing game with a gun may force a weed or rock into the barrel and cause the barrel to blow up when the gun is fired. The painful result to your face would be a bad way to learn safety precautions.
10. A gun rack allows this young hunter to display guns in his room, but he knows a gun is more than a wall decoration. A gun should be out of the reach of small children and in a place where it will not be damaged. Because of the explosive nature of shells they should also be kept away from inquisitive children.





Underground shelters such as this one provide maximum protection from fallout. This type houses 15 persons.

Can Farmers Cope With Fa

Recently there has been a lot of talk about radioactive fallout. To find out how it would affect agriculture we boiled down the facts given by the Office of Civil Defense Mobilization.

by Ken Hofmeyer

CAN YOU imagine operating a farm from a bomb shelter? Can you think what it would be like to schedule work periods to carry on the farm operations?

Scientists tell us that bomb shelter farming would be necessary if the United States were attacked with nuclear weapons.

What are the effects of radioactive fallout on livestock and crops? This question, and many others, must be answered before farmers can be prepared for a nuclear war. Preparedness and a knowledge of fallout and its effects appear to be the means to survival should a nuclear blast occur.

The term, radioactive fallout, is currently becoming a part of the layman's vocabulary. But what exactly is it?

When a large nuclear weapon explodes on or near the ground, its blast and heat pulverize and vaporize large quantities of earth and other matter. These dust particles are sucked upward where they mix with the radio-

active materials of the discharged weapon and form a huge mushroom-shaped cloud. This cloud rises as high as 15 or 20 miles. The radioactive dust is scattered by winds and then gradually settles back to earth, perhaps hundreds or even thousands of miles from the point of explosion.

Time Before Fallout Varies

In areas near the blast, where radiation levels would be highest, fallout might begin 30 minutes after the explosion. Farther from the explosion the radioactive dust may not start to fall to the earth for several hours after the blast, but it would continue for a considerable length of time. If the fallout is heavy, it possibly could be seen as it falls through the air, or after it has settled. The intensity of radiation from fallout in the danger zone would reach its peak between two and twelve hours, depending upon the distance from the point of explosion.

The principal concern to agricul-

ture in the case of radioactive fallout is the radioactive particles themselves. Fallout as a source of radioactivity can be compared to a lantern as a source of light. When the lantern is in a room, it gives off light rays that strike various objects. When the lantern is taken away, the light rays are gone. In the same way, once the fallout is removed, the radiation is gone and the materials which had contact with the radiation are not radioactive. The damage to living things, however, may continue or may not appear until later.

Roentgens Measure Radioactivity

Scientists use the term roentgens (renk-ens) to measure radioactivity. An amount of 200 roentgens is enough to cause illness to a human. Six hundred roentgens is considered fatal, while amounts of 25 to 50 roentgens will cause no obvious or serious injury.

The amount of radiation received in any area depends on several factors.

allout?

Location and intensity of the blast would be deciding factors. As would be expected, the radiation exposure is less farther away from the source. The lapse of time after a nuclear explosion is also a natural protection against radiation because radioactivity decays with time. The longer it takes the fallout to reach an area, the more time allowed for radiation

intensity to decrease because of decay. Naturally the prevailing winds would also help determine who would get the greatest fallout dosage.

In a nuclear war, farm families would be faced with the necessity of doing farm chores and making other necessary trips in the open. After the first acute hazard of fallout has passed, and as long as supplies of food and water have been protected, appropriate schedules of work and shelter times could be devised that could save lives and reduce injury to men and animals.

Timetable Regulates Work

Officials planning protection from fallout have devised a maximum work timetable. It indicates as a general guide the number of hours a day you could work outdoors in various levels of radiation without subjecting yourself to more than 25 roentgens per day; 100 roentgens per week; or 200 roentgens per total lifetime exposure. The timetable shows that seven hours after a nuclear blast giving off initial radiation at the rate of 300 roentgens per hour, you could safely spend 48 minutes outside of your underground shelter. Twenty hours after the blast you could safely spend three hours per day outside, and one month after the blast you could spend 11 hours per day outside.

More Radiation Allows Less Work

The timetable also shows how much time you could safely spend outside an underground shelter if the

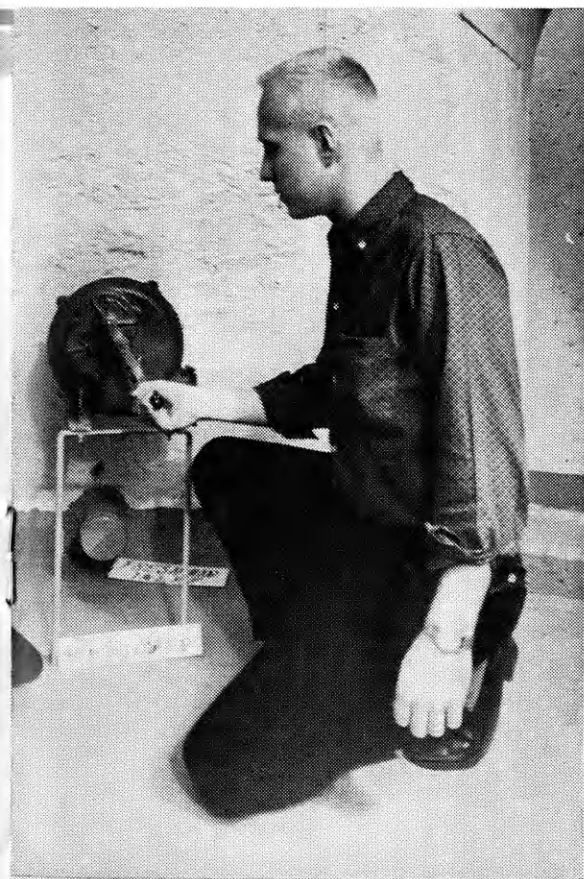
initial radiation after the blast was 3,000 roentgens per hour. You could spend only 48 minutes per day outside one week after the explosion. One year after the explosion you could safely spend only two hours per day outside the shelter.

Providing protection for livestock from nuclear fallout presents special problems. Specially constructed livestock shelters could be built, but the cost would be prohibitive. The cost would depend on what a farmer could do himself. If a farmer hires a contractor to cover a quonset-type structure with earth, costs could be more than the value of the animals he wishes to save.

The best shelter for livestock would be a two story basement type barn with a loft filled with hay. A good tight barn reduces the radiation dosage by one-half. But any shelter, even a shed without sides, gives some protection. Animals should be kept in the shelter for at least 24 to 48 hours, the most critical period after a nuclear explosion. A two week supply of uncontaminated feed and water should be a part of the shelter facilities.

Benefits Determined by Radiation

There would be few benefits to animals from shelter facilities if radiation levels were low. At high radiation levels, scientists estimate nearly all animals would die, sheltered or unsheltered. At medium levels of radiation, shelters would prevent sickness and death of animals. A medium dose is considered to be 300



A ventilation pump is standard equipment for the interior of an underground shelter.



Emergency food supplies are stored on shelves built around the inside of the igloo-shaped shelter. Other items needed are sanitation supplies and cooking utensils.

to 600 roentgens given off in a 24 hour period. In a particular farming area hit by a 600 roentgens dosage during a 24 hour period, fatalities to unsheltered farm animals would be: cattle, 50 percent; hogs, 98 percent; sheep, 80 percent; and poultry, 7 percent. Given the same dosage, but housed in a shed with tight wooden walls, scientists estimate that none of the animals would die.

Prevent Contamination

The principle of keeping feed and water for livestock from becoming contaminated is quite simple. Prevent the radioactive dust from becoming mixed with the feed and water. As long as feed and water come in contact with just radioactive rays, but not radioactive particles—or if the fallout can be removed, the materials will not be radioactive and will be safe to eat or drink. You would use the same methods to prevent feed contamination as you would in preventing ordinary dust from contaminating food or water for human consumption. Fallout can be removed in about the same way as dust—by washing, vacuum

cleaning, or brushing. There is danger, however, from inhaling the fallout while removing it.

A nuclear attack on this country could contaminate millions of acres of crop and range lands with radioactive fallout. Crops grown on the contaminated soil would absorb the contamination and food from these crops would be the source of internal radiation for our population.

Research workers are conducting tests to find uses for contaminated soils or to find ways to decontaminate it. Strontium 90, one of the radioactive elements given off as fallout, is the most dangerous contamination product of fallout taken up by plants.

Use Different Crops

Contaminated soil could be used for other types of plant production if the radiation level was too high for the original type of production. The amount of strontium 90 could be reduced by growing crops with lower amounts of strontium and calcium in their edible portions, since the amount of strontium taken up by plants is directly related to the

amount of calcium in the soil and in the plant. Deep rooted plants could be grown if contamination is found in the top several inches.

Cover provided by two tons of oat straw is practically complete. More than 90 percent of the fallout can be removed by removing the straw. Removal of a sod covering will also provide 90 percent decontamination. Removal of standing crops, however, will provide only approximately 25 percent decontamination.

Another method of decontamination, soil surface removal, is one of the most effective methods but the most expensive. It might be useful for small areas such as gardens, but would not be suitable on large acreages.

These are some of the problems facing agriculture in the event of a nuclear attack. All of the questions about fallout and survival cannot be answered because all the facts are not known. But research in radioactive fallout is being continued. New knowledge is expected to lead to improved methods of protecting American agriculture against the hazards of fallout.

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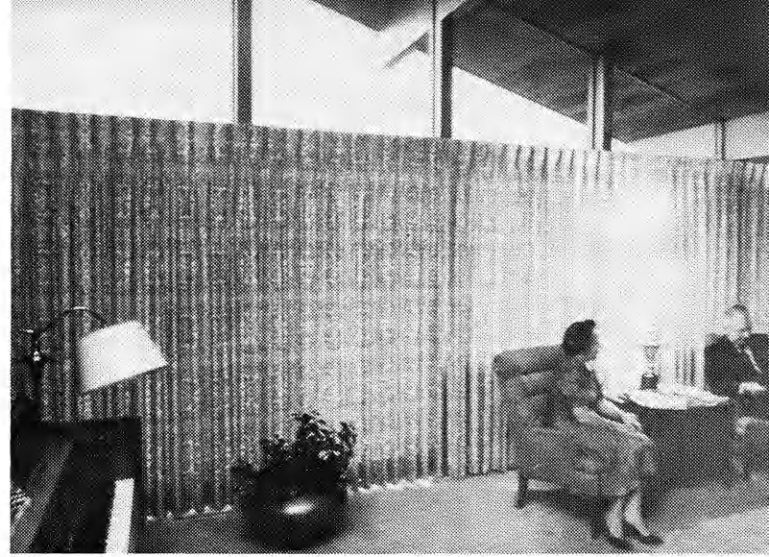
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Length is important when either buying or making draperies. Apron or "sill length" draperies blend well in bedroom decor.



Draperies can be used to improve room appearance. Full-length draperies covering entire wall add color to some rooms.

Draperies Beautify Problem Windows

by *Jodee Michaelis*



Any home seamstress can make and line her own drapes. She can choose from many fabrics, styles, and patterns.

"The windows in my house are too narrow," says one homemaker.

"Just be glad you don't have three windows of different sizes on one wall, like we do," answers her neighbor.

If windows are causing you problems, draperies may be an answer. They can be used to camouflage awkwardly placed windows, make narrow windows appear wider, and make low windows seem higher.

You may want to extend draperies across one entire wall to cover windows which are irregular in shape. If the material you choose is not too heavy, you will still receive some light from the windows.

A narrow window can be made to appear wider by hanging the draperies a few inches beyond the window frame at each side. Then, cover the top of the draperies with a cornice or valance. When the draperies are pulled back, the window will appear wider and you will have full advantage of all possible light.

You can give a low window greater height by hanging draperies above the window frame. Cover the space

(Continued on Page 18)

Sheer curtains or venetian blinds work well in filling the area between the draperies on the outer sides of the window group.



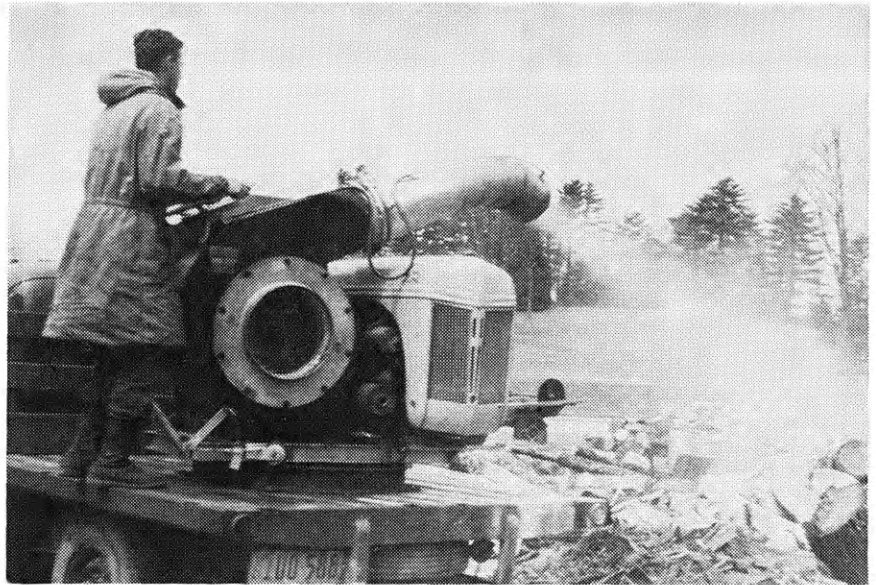
Many fabrics may be used for drapes; thus you can choose the one for your purpose. A variety of patterns is also available.



Killer Disease Threatens Kansas Elms



Dark streaks (arrow) running up the sap-conducting vessels of this tree indicate that it possibly has Dutch elm disease.



Spraying infested wood piles with a DDT-kerosene mixture kills adult beetles. Other methods, however, must be used to kill beetles that overwinter in the wood.

A laboratory test is the only sure way to positively identify this dreaded disease.



by *Gordon Bieberle*

DUTCH ELM disease is spreading southwest across Kansas, destroying 500 to 1,000 elms per square mile each year! This disease has the potential of destroying 90 percent of all elm trees in Kansas within the next 20 years!" said Dr. Hugh E. Thompson, assistant professor of entomology at Kansas State University.

In areas densely populated with American and European elms, spreading of the disease depends upon weather conditions, explained Dr. Thompson. Shade trees in eastern Kansas run from 75 percent to 90 percent elm. Therefore, an epidemic of the disease could eliminate 8 out of every 10 shade trees in many eastern Kansas towns.

You may ask, "How can I tell if my trees have the disease?" Dr. Stuart M. Pady, head of the botany and plant pathology department at KSU, has supplied some answers to

this question. He said that a symptom of the disease may be wilting and dying of one of the main branches. Another symptom is discoloration of sap-conducting vessels in the branches.

If these two symptoms appear, you can be fairly sure your trees have the disease. However, since drouth, bark beetles, and other diseases may also cause these symptoms, you should send samples from suspected elms to a laboratory for a culture test to determine definitely whether your trees have the Dutch elm disease. If the test is positive, a fungus similar in appearance to a mold will appear on the culture plate.

Submit Good Samples

"Cultures are only as good as the samples sent in," said Dr. Thompson. To get good samples you should take them from live branches near the diseased part of the tree. The sample submitted must be 4 to 5 inches long and tightly wrapped in waxed paper. It must also be labeled for identifica-

Dutch elm disease struck here. Infested trees are cut to prevent the disease from spreading to non-infested elms in the area.

This wood pile must be burned to kill the overwintering beetle larvae in the wood.



tion because several thousand samples are sent in each year.

What can you do to save your trees after they are infected? Nothing! To date, no satisfactory method has been found to cure the trees once they have the disease. However, a method has been discovered to retard its toxic effect.

Treatments Delay Disease

As early as 1946, Dr. A. E. Dixon from the Connecticut agricultural experiment station determined that injection of a material known as 8-hydroxyquinoline benzoate into trunks of trees before they were infected with the Dutch elm disease gave nearly 100 percent protection. When he injected this material into trees after they were inoculated with the fungus, he could delay symptom development in 50 percent of the trees only as long as he continued the treatment. "Best results were found in those trees which showed less than 5 percent symptom development at the time of treatment," remarked Dr. Thompson.

Approximately 30 materials have been submitted to the United States patent office as cures for the Dutch elm disease. None of these have ever proven effective.

"All we can hope to do by treating

diseased trees is to counteract the toxic effect of the fungus, thus allowing trees to continue to live and grow," added Dr. Thompson.

There are ways to help prevent your healthy trees from getting the disease. Since the Dutch elm disease fungus is carried by the elm bark beetle, control of the beetle will eventually lead to control of the disease. You can help in the battle by spraying your trees and dead elm wood with DDT—this kills the adult beetles. This spray may be applied any time during the winter and early spring when temperatures are above 32°F. However, according to Dr. Thompson, if you want to eliminate the bark beetle effectively, you must destroy all the infested elm wood. This is most effective during the winter months because bark beetles that would emerge and feed during the favorable period in the spring are destroyed in the larvae form.

Deadwood Harbors Beetles

However, destroying infested elm wood during the summer eliminates many adult bark beetles which would produce young beetles. During dry years trees weakened by many reproducing bark beetles would die.

You don't want to destroy all your

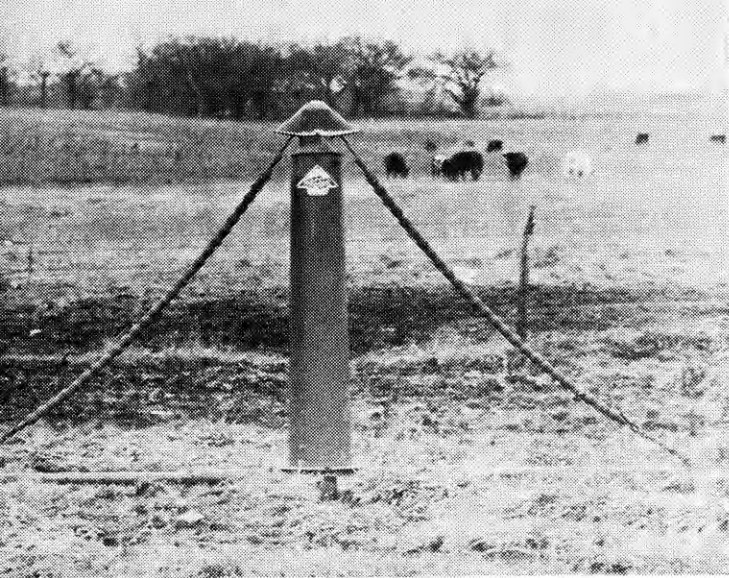
stored elm wood? In this case, you have an alternative—you may strip and burn the bark from elm logs. A still less effective means of control would be saturating the bark with a strong DDT and kerosene or fuel oil mixture.

New Hope for Elms

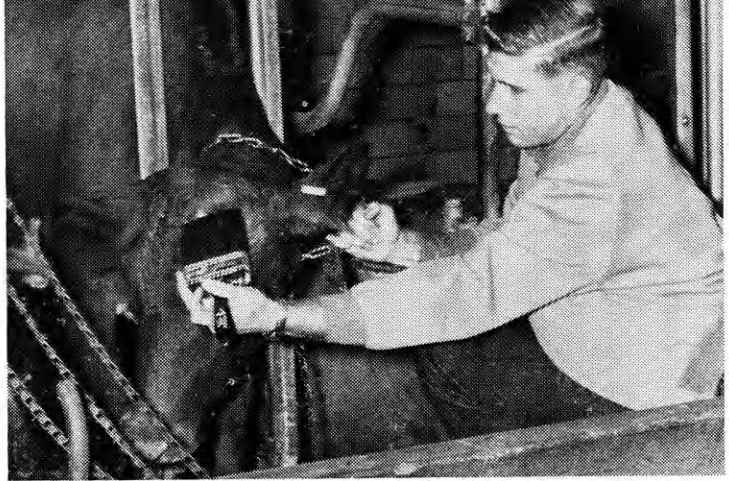
If your shade and ornamental elm trees are being threatened by the disease, Dr. Thompson recommends that you keep them pruned and sprayed with the DDT mixture. After Dutch elm disease invades an area, residents often make plans to eliminate elms from future plantings. The danger that elms will disappear from our landscapes is greater from them not being planted rather than they will all die because of Dutch elm disease. For several years, it was thought that the elm was doomed; today, however, the picture has changed. Recent research findings, including new chemicals for disease control and resistant tree varieties, have resulted in an optimistic outlook that healthy trees can be protected.

The American elm tree, which is more often attacked by the disease, was planted throughout the state in early years. "It's a favorite shade tree of American people—it grows

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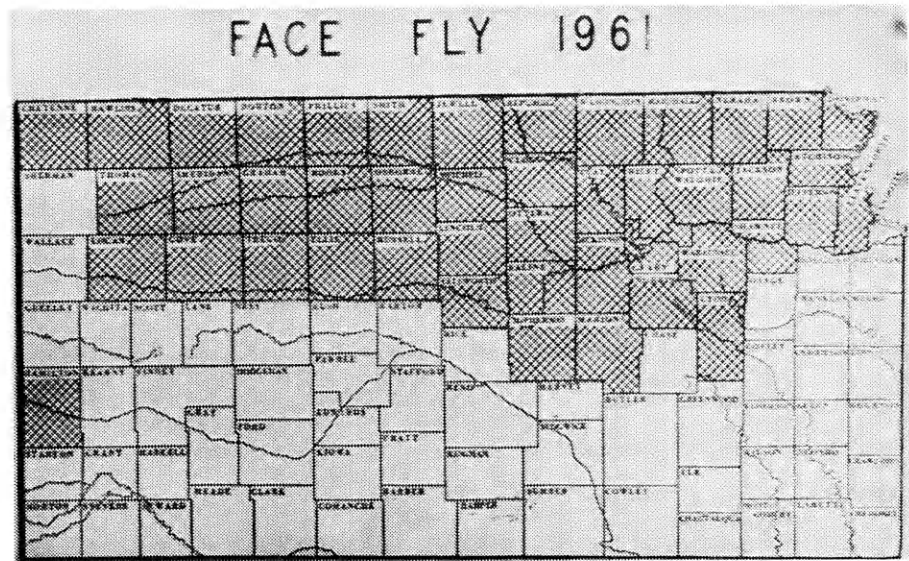
A cattle oiler with a DDT and fuel oil solution is needed to control face flies.



It is easier to treat dairy cattle than beef cattle, since the DDVP and sugar bait solution can be painted on the cows at milking time.

In one year face flies have spread from Marshall county to this darkened area. →

In less than a year a new profit-robbing pest may invade your farm.



Be prepared to

Fight Face Flies

by Merle Jones

A NEW MENACE is cutting beef and dairy production on the Kansas livestock scene. This menace is the "face fly." "Face flies may spread over the entire state next year," said Dell Gates, extension entomologist at K-State.

During the past year, face flies have spread from one county (Marshall) to most of the northern two thirds of the state. It probably will be a matter of less than a year before the whole state will be infested by these flies.

You might have them on your farm and not even know it. They may be cutting your profits right now. If you live in the infested area, they certainly will be taking their toll next summer.

The face fly is similar to the housefly, both in appearance and in life cycle. They are slightly larger than

the ordinary housefly and have some distinguishing marks, but it takes a trained observer to properly identify the flies. They must be examined under a hand lens for definite identification.

Face Flies Irritate Cattle

They do their damage principally by irritating the animal so he doesn't feed normally. This will cause beef and milk production to drop. It is impossible for them to bite, says Gates. Their mouth structure is designed to act as a sponge and they simply absorb their food. They feed on the secretion of mucus around the eyes and mouth of livestock.

The flies have tremendous multiplying ability. Their life cycle, from the time the fly is hatched to the time it lays eggs, is from 8-12 days. Thus they require constant control methods. The eggs will hatch in 10-20 hours after being laid. As many as

10 generations may occur in a year.

Face flies are rather hard to control. Like houseflies, they lay their eggs in manure piles but there is one big difference. While most flies lay their eggs around the buildings that house the livestock, face flies deposit their eggs in the manure that is scattered throughout the pasture. Also the flies rest out in the pasture on fences and trees. This makes it impractical to control them by spraying buildings. Range cattle can't be rounded up and sprayed every three or four days, nor can the range be sprayed satisfactorily. There is just too much area to sanitize. Dairy cattle are much easier to treat though, for they can be treated at milking time.

Cattle Oiler Is Essential

"Effective treatment for beef cattle consists of a five percent solution of DDT, toxaphene or methoxychlor, in No. 2 fuel oil applied with a cattle oiler," said Gates.

The cattle oiler or "back scratcher" is an essential part of beef cattle fly control. Since the flies will rest only about half an hour a day on the animal, the flies will often escape a lethal dose of cattle spray. Thus an oiler in the pasture, readily available to the cattle, will give the continued application of insecticide necessary for effective control. In tests using the "scratcher" and a DDT solution the fly population has been limited to four flies per animal. This rate is low enough to provide satisfactory protection to the animal.

Bait Attracts Flies

Dairy cattle control is simplified because the cattle are easily available for treatment. A thick solution of sugar (to make it sweet) and DDVP should be painted on the animal's face daily. The flies are attracted by the sugar to the insecticide. The bait will lose its effectiveness after a day, so it must be applied frequently. It is more effective when applied in the morning. If applied in the evening, a heavy dew may dilute the solution, making it less potent.

The cold weather has stopped the face fly problem for this year, but you, as a cattleman, must prepare to again conquer a new menace to the livestock industry. The fly at the present is not too much of a problem, but it will become one in the next two or three years.



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Draperies

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between window and drapery rod with a valance or cornice.

Bay windows and corner windows may also cause decorating problems. Try using a valance with draperies on the outer sides of the window group. Sheer curtains or venetian blinds can fill the area between the drapes.

No matter what type room you have, draperies are a vital part of your decorating scheme. Choose a window treatment which will do something for the room. Take into consideration your need for light, privacy, and air. Then pick draperies which meet these needs and fit in with your decor. Remember though, few rooms can stand more than one pattern. Use plain draperies if your couch or chairs are patterned. Patterned draperies will look best in a room that has furniture in plain materials, or that has a plain rug or carpet.

The length of your draperies is important. They should be "sill" or "apron length," which is to the bottom of the board just below the window, or "floor length." If the hem of your draperies falls between these lengths, they will look too short—as if you ran out of material or the fabric shrank.

Many different materials may be used for draperies. Silk is used for some of the more expensive draperies. However, silk will deteriorate if used on windows that receive direct sunlight. Silk is combined with the synthetic fibers now to produce materials that are more durable than the pure silk.

Many Fabrics Are Used

Cotton and various synthetics are used extensively for draperies. These fibers may be used alone or be combined. Linen fabrics are also popular.

Fiber glass draperies are being used more all the time. They don't soil easily and can be cleaned by using a vacuum or a spray cleaner. Fiber glass is fire proof so would be good to use near a fireplace. One caution though, when you take down fiber glass draperies, don't fold them. Folding will break the fibers. Instead, carefully roll the draperies.

For the home seamstress, there is an abundance of fabrics which you can use for draperies. Inexpensive

cotton materials can be quite satisfactory. Sheets may also be used. Dress fabrics can be used although they may be too narrow. You can sew too strips together or, if you have small windows, use the fabric as one continuous strip across the window. There's no need for seams then.

Patterns used for drapery material include everything from abstract designs to spring bouquets. A small provincial print might be your choice if you have early American furniture. Stripes are often used with modern and contemporary decor. It is best to use the stripes horizontally—vertical stripes often get lost in drapery pleats.

If you're willing to shop around, you should be able to find a fabric that will exactly fit your needs. If you don't find the color you want, try dyeing plain cotton. A little imagination is all you need to make draperies fit your personality and home.

Lining Improves Drapes

Draperies should be lined for satisfactory use. The inexpensive cotton sateen generally used for lining protects the more expensive drapery material from deterioration and fading. It insures privacy too. The lining may also help your draperies hold their crispness longer and hang better. For best results though, sew the draperies and lining together by hand.

When sewing curtains, pleater tape is a great advantage. Just sew on the tape at the top of your draperies, then insert the metal pronged pleaters. Your pleats will all be exactly alike and the right distance apart. When it comes time to clean, just slip out the prongs and your draperies will be flat for pressing.

Killer Disease

(Continued from Page 15)

well and has a beautiful shape," said Dr. Pady.

All American and European species of elms are susceptible to Dutch elm disease, so you should consider replanting with the resistant variety—Christine Buisman elm.

Elm Bark Beetles Spread Disease

Dutch elm disease is so named because it was first discovered in Holland. Disease-carrying elm bark beetles traveled from there to Europe and then to America by way of log shipments. "It took 50 years for the beetles to spread from Boston to central Kansas, a distance of nearly 2,100 miles. Since the beetles were discovered in Kansas, they have been traveling about 30 to 40 miles per year, and moving in a southwesterly direction," stated Dr. Thompson. Moving at this rate, the disease carrying beetles will travel reasonably fast until they reach Central and Western Kansas. Then they will be slowed down because of the fewer numbers of the two susceptible elm varieties.

Dr. Thompson pointed out that the first front of the disease entered the state through Wyandotte county in 1957. A new wave struck Kansas through Cherokee county in 1959.

The latest disease movement was discovered this year, entering Kansas through Doniphan county and extending through Jefferson county. The three fronts have combined to push the spread of the disease through Osage, Coffey, Butler, Greenwood, Woodson, Cowley, Elk, Wilson and Labette counties. The beetle will probably push westward until it reaches the Rocky Mountain range, added Dr. Thompson.

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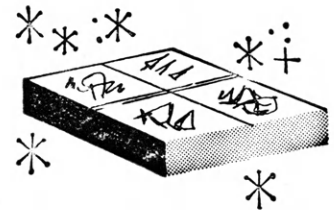
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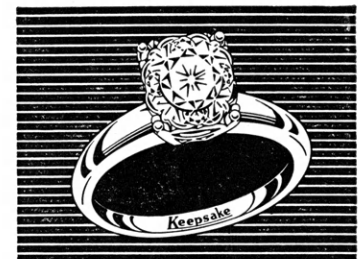
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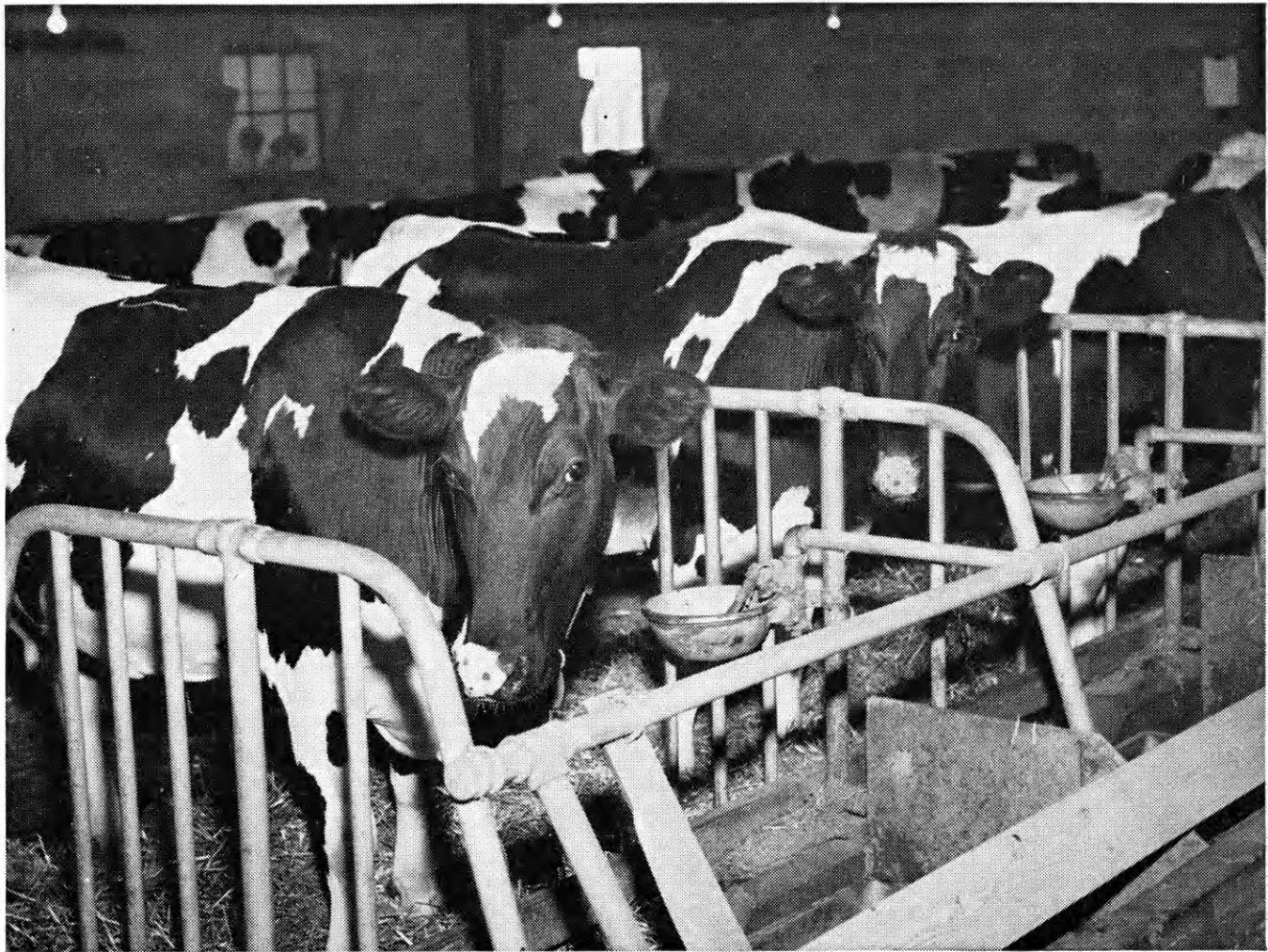
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