

When cows stop the beam of this "electric eye" (see arrow) they pass through a curtain of spray. This device provided effective control of horn, stable and horse flies in tests in 1956 by Dr. Tien-hsi Cheng at the Pennsylvania State University Agricultural Experiment Station. The livestock spray used contained pyrethrins and a fly repellent mixed according to manufacturer's directions. Pressure was provided by a small motor and pump. To decrease costs, this fly sprayer could be connected to a tractor-driven weed sprayer.

Modern Water Storage Displayed At World's Conservation Exposition

PEEBLES, Ohio — Visitors from all over the world will get a firsthand view of modern on-farm storage of our most valuable natural resource—water—as they tour the site of the 1957 World's Conservation Exposition and Plowing Contests here September 17, 18, 19 and 20.

Among the many conservation attractions on the 2,500-acre site, just north of Peebles, are seven farm ponds. Six were specially built to show visitors how water can best be stored and used on the farm. Livestock watering tanks also will be on exhibition.

Those ponds, ranging in size to more than an acre and a half of surface, are fed both by springs, and by runoff from sur-

rounding area of crop and woodland. As a part of the complete drainage system planned for the 16-farm area, these ponds supplement such control measures as drainage ditches, tile lines, terraces, contour strips, sod waterways and rotation cropping. They also illustrate how farm ponds can provide flood control water supply for livestock and irrigation, fire control, and in some cases furnish drinking water—or at least raise the water level in nearby wells.

The rolling land of Adams County provides ideal situations for farm ponds to act as basins for water draining in from surrounding slopes. The ponds also illustrate good fish pond management for farmers and sportsmen.

State Issues

Warning Bulletin On Wild Cherry

HARRISBURG — Reports of cattle killed from eating wilted wild black cherry leaves today prompted the State Department of Agriculture to warn farmers of the danger.

According to deputy Secretary L. H. Bull, reports of losses are scattered. Death is caused by hydrocyanic acid, more commonly known as prussic acid, which develops in wilted leaves of wild cherry and sometimes choke cherry.

He attributed the immediate causes to cutting or spraying wild cherry in pasture fence rows, along power lines and highways where the wilted leaves are eaten by cattle. Effects of hurricane Audrey also contributed to the danger when branches and leaves were torn from trees, blown into pasture fields and allowed to wilt.

Prussic acid is not found in any dangerous quantity in healthy growing plants, Bull explained.

To avoid trouble, he said farmers should use care in removing wild cherry cuttings, also sprouts killed by spraying for plants pest control, so that cattle cannot reach them.

The poison developed through wilting may kill an animal within a few minutes or several hours at most. Symptoms include depression and paralysis, colic, stupor, difficult breathing and frequent convulsions.

Dollar for dollar and man for man, the submarine is this country's most economical weapon. Comprising only 1.6 per cent of the Navy's World War II personnel, the submarine service accounted for 55 per cent of all enemy shipping destroyed.

Radioactive Cobalt Being Used In Cotton Utilization Research

18 RADIOACTIVE Cobalt (Cobalt 60) will soon be used by scientists of the U. S. Department of Agriculture to speed up their investigations into new uses for cotton and other crops. Future research calls also for radiation treatments to help create useful new products from pine gum, tung oil, and castor oil, the Department says.

Dr. Jett C. Arthur, Jr., of USDA's Southern Utilization Research and Development Division in New Orleans is in charge of the new research project. He has been specially trained and licensed by the Atomic Energy Commission to use radioactive materials. A two-ounce supply of Cobalt 60 has recently been received by Dr. Arthur's group. It is one of the largest single supplies of this material outside of the AEC installation at Oak Ridge, Tenn.

Cotton is the first commodity scheduled for radiation study. In the past few years, agricultural researchers have made much progress toward increasing the demand for cotton through physical and chemical modification of cotton cellulose. The scientists believe that Cobalt 60 will now provide them with a faster and more accurate means of determining how various modifications affect the chemical reactivity and physical properties of

cotton. It will also be used to increase the absorption and adhesion of cotton dyes and to obtain other information about the behavior of the cotton fiber under varying conditions.

Radiation research is also planned on cottonseed products and fruits and vegetables, and scientists see possibilities for creating new materials from other radiation-treated farm-produced substances.

Farmers Need Not Stop Work for Social Security

Many farmers, unlike the self-employed man in town, will no doubt continue to live on their farms after they start getting social security benefits.

Social Security Administration officials remind that the law does not require such farmers to stop all work in order to get payments. They may, if they wish, work part time or throughout the year and get some or all their monthly social security benefits.

If they earn \$1,200 a year, or less, they get payments for each month, but if they work all 12 months of the year and have earnings in excess of \$1,200, they will lose one or more monthly payments.

More specifically, a retired farmer will get a payment for each month in which he neither earns \$80 working for someone else, nor does substantial work on his own farm. He will not be considered to have done "substantial work" if he repairs his own house, for example, or raises vegetables, livestock, or poultry for home consumption.

Under some arrangements, the SSA officials say, rental income farmers get counted as earnings for social security purposes.

Grain Feeding Needs Adjustment During Pasturing

Now that most cows have been on full pasture feeding for two or three weeks, Associate County Agent Harry Sloat says adjustments can be made in grain feeding. He recommends a grain mixture containing 10 to 12 per cent crude protein when cows have plenty of good quality pasture to graze. By early July, when forage becomes more mature and less abundant, 12 to 14 per cent mixture may be necessary.

In each case, the lower protein level is suggested with largely legume pasture, while the higher protein recommendation applies to forage that is principally grass. When small grains, like sudan or millet are grazed, they should be considered grasses.

Amounts of grain fed can also be reduced when a large amount of good quality pasture is available. Grain to milk ratios of 1.4 to 1.6 should be more common for small and large breeds respectively. When the forage is more mature and scarce, larger amounts of grain may be required. Feed enough grain to keep cows in "working" flesh.

High producing cows can not be expected to get their nutrient needs satisfied on pasture alone. Some cows frequently lose considerable flesh during the early pasturing season, so they need extra grain later to maintain milk flow.

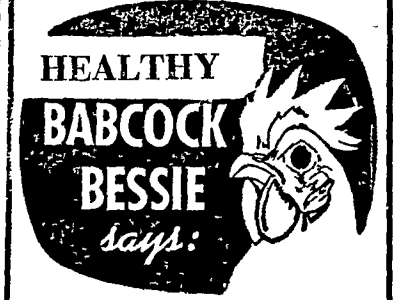
When cows on good pasture refuse to eat all of their grain allowance it is especially important to use a high energy grain mix. A high fiber feed is often low in energy and is actually a "hotter" feed than a heavy grain mixture. Such bulky and low energy feedstuffs as wheat bran and brewer's dried grains are not well adapted for use in summer feeding.

Ice Cream, Turkey Plentiful in July

Ice cream and turkey are featured on the plentiful foods list for July and they will receive extra promotion from the USDA. Emphasis on ice cream will be given during the week beginning July 7, turkey during the weeks beginning June 30 and July 21.

Other items on the plentiful foods list will be peaches and summer vegetables during the weeks beginning July 14 and 28 respectively.

Lemons, limes, frozen strawberries, milk and dairy products, eggs, fresh fish, peanut butter and fats and oils are also listed.



A Third Reason Why Pullets Pick

Lack of exercise and not enough to do encourage cannibalism in laying pullets. Heavy laying pullets have lots of energy, lots of zip and this liveliness has to be worked off one way or another. One reason poultrymen who feed their pullets on crumbles instead of mash have trouble with picking is that the pullets can fill up on the crumbles so quickly that they have lots of time on their hands they don't know what to do with it. I, therefore, suggest that for layers you feed your laying ration in mash form because it takes birds several times as long to get their fill with mash as with crumbles or pellets.

I suggest that you not feed more than 4 lbs of fleshing pellets or supplemental pellets per hundred birds per day. If you feed higher levels of pellets the birds are full for a number of hours and are more likely to pick.

Scratch grain should be fed in the litter which encourages exercise and the birds really like to scratch (scratching in the litter also helps to keep their feet cleaner and give you cleaner eggs).

I believe, but I am not sure, all mash rations usually cause more picking than when you feed a laying mash plus scratch grain. Pullets appreciate the diversion they get if you feed scratch in the litter.

Pullets do not have magazines, radios or television. Try to give them a little variety of activity. The more personal attention you give the birds the better they will lay for you.

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