

Selenium deficiency, pinkeye;

Beware these two cattle profit pickpockets

Outbreaks of selenium deficiency and pinkeye will quietly rob many beef and dairy farmers of their profits in 1986, predicts Dr. Harlan Bigbee, veterinarian with Schering Animal Health.

Both problems can undercut meat and milk production in cattle and reduce their market value, he says. In addition, selenium (Se) deficiency has been associated with white muscle disease and, according to university research, serious reproductive problems such as retained placentas and cystic ovaries.

"These two underrated cattle health problems sneak up behind the farmer and steal his profits," Bigbee adds. "By acting now to correct Se deficiency and prevent pinkeye in the herd, he can stay one step ahead of these pickpockets."

Selenium deficiency strikes

Cattlemen from coast to coast should be wary of Se deficiency, he notes. At one time, only the Northeast, Ohio Valley, Southeast, and the Pacific Northwest regions were targeted with Se shortages. Now, however, marginal areas of Se deficiencies are showing up in areas all across the country.

The transfer of Se from soils, to plants, to livestock is cyclical, so where soils lack this essential element, crops can also be deficient. Ultimately, livestock consuming Se-deficient crops suffer from the imbalance too.

High crop yields and intensive irrigation and fertilization have added to Se shortages in crops. "The higher the crop yield, the smaller the concentration of selenium in each plant," says Bigbee.

He adds that even cattle producers who live in areas with adequate supplies of selenium in

the soil must be wary of the problem. If they are buying grain or forages from Se deficient areas, their cattle could also be lacking.

Extensive research in the past few years has connected inadequate levels of Se with a number of severe health problems in cattle. Initially, Se deficiencies were associated with white muscle disease, but further research at several major universities has documented the link between low Se levels and higher incidence of retained placentas and cystic ovaries, ill thrift and poor weight gain, and immune system deficiencies.

Recent findings at Ohio State University have also revealed that Se and vitamin E supplementation has reduced the incidence of coliform mastitis in dairy cows.

Se and vitamin E have similar actions in the body, explains Bigbee. They each join in respective enzyme systems to protect body cells, and together they have an additive effect. "Selenium and vitamin E each do some good separately," he says, "but put them together and they help maintain optimum growth and performance."

The Se deficit problem is really a matter of balanced nutrition for cattle. But supplementing the diet does not simply mean adding Se to the cattle feed, cautions Bigbee.

"Adding selenium directly to the diet is a slow, somewhat ineffective procedure," he says. To bring low Se levels up to normal, he adds, a farmer often needs to feed a lot more of the element than is currently allowed by law.

Beef and dairy producers can obtain FDA-approved injectable Se from their veterinarian to prevent and correct deficiencies. Mu-Se and Bo-Se are two in-

jectables that combine Se and vitamin E to protect cattle and calves.

To detect a potential Se imbalance, producers can work with their veterinarian and do a blood or serum analysis on a representative sampling of the herd. One common standard, adds Bigbee, is to test at least six animals or 10 percent of the herd, to get a good picture of the herd's status.

Pinkeye: \$150 million problem

Like Se deficiency, pinkeye is another subtle, yet serious, health condition that can silently snatch away a cattleman's profits.

Cattle suffering from pinkeye, says Bigbee, experience severe reductions in weight gain and milk production. "In a cow/calf beef operation, that's really a two-pronged effect. The cow doesn't milk as well for the calf, and the calf in turn doesn't gain as well," he notes. "And when a dairy cow goes down in production because of pinkeye, she never regains enough to make up for that loss."

Beef and dairy farmers must also remember, Bigbee says, that pinkeye causes scarring of the eye, which reduces the market value of the animal. Purebred breeding stock can easily drop 10-20 percent in value, he estimates.

All together, pinkeye robs cattlemen of some \$150 million a year, according to USDA estimates.

The pinkeye season reaches its peak during the summer, when hot dry air carries dirt and pollen that irritate the eye and increase its susceptibility to infection. Keeping down weeds and controlling the face fly, which carries the *M. bovis* bacteria that cause pinkeye, are good disease management practices. To fully protect their

cattle, though, farmers can vaccinate in the spring as part of their usual herd health program.

Bigbee suggests a two-step vaccination schedule. Vaccinate once with Piliguard Pinkeye +7, which also gives immunity to clostridial diseases such as blackleg, and vaccinate again in one to four months with straight Piliguard Pinkeye. This program, he adds, gives the farmer a flexible

vaccination schedule, yet fully protects the cattle against outbreaks of pinkeye.

"A pinkeye vaccination program is really a sound insurance program. For each dollar invested in vaccination, the farmer can save the \$10 or \$20 it costs to treat the disease and to feed cattle that are not producing milk or meat," Bigbee concludes.

Grassland FFA names

"Members of the Month"

NEW HOLLAND — The Grassland Environmental FFA of Garden Spot High School has instituted a program to recognize the outstanding first-year (Greenhand) members and second year (Chapter) members within their organization. This recognition program known as the "Member of the Month" was developed by the Environmental FFA's Scholarship Committee.

According to committee chairperson, Gretchen Frederick, "the program was developed to recognize those students who have displayed outstanding leadership in the FFA, scholastic achievement in school, and involvement in activities throughout the school and community."

The program is designed so that a member must be nominated by one of his peers. Upon nomination, the candidate is then selected by a vote of all the other members in the chapter.

The first member of the month from the Chapter Degree group is sophomore Jim Shirk. Jim, the son

of Mr. and Mrs. William Shirk, East Earl, was given special recognition for the outstanding job he has done promoting the chapter's Building Our American Communities program. He has exhibited leadership ability as co-chairman of the BOAC Committee and is currently serving as vice president of the chapter. He is also an honor student who is involved in numerous activities in his school and community.

This month's Greenhand member of the month is Phil Horning. Phil, a freshman, is the son of Mr. and Mrs. Harvey Horning, RD1, Denver. He is currently serving as second vice-president of the Environmental FFA and is active on several committees. He is a member of the football and track teams at Garden Spot. Phil's supervised occupational experience program (SOE) includes work experience at Weaver's Orchard, market hogs, and a wildlife conservation project in which he plans to raise and release ring-necked pheasants.

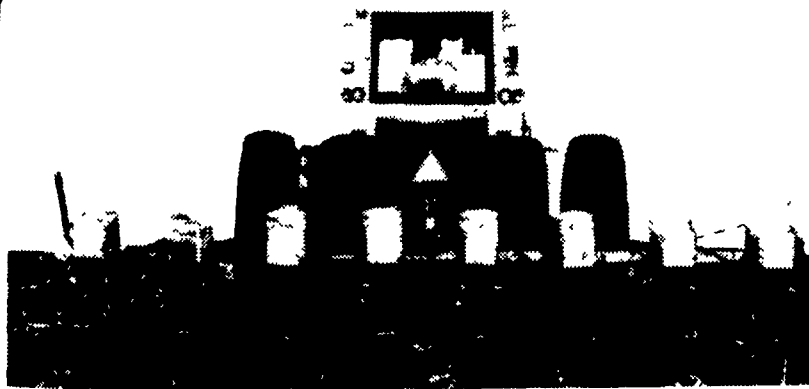
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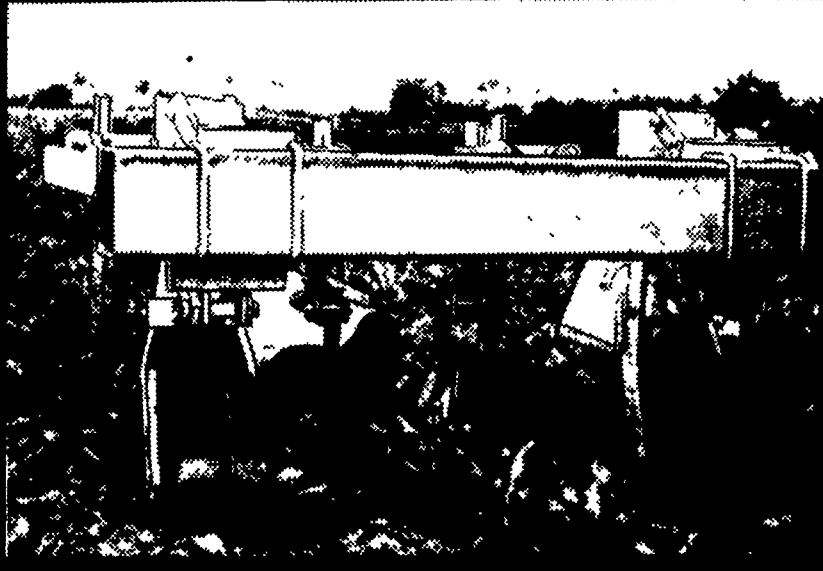
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