

Rancher's Report

By BILL DECKER

Wayne Hickerson believes that he has found the answer to a problem that has plagued cattlemen since the beginning of time: insect pests. He has developed an improved version of a cattle scratcher which automatically spreads an insecticide on the animals as they rub against it.

During the past six months Hickerson has been manufacturing his Elwaco Automatic Cattle Oilers in Merrill and has sold over 100 of them to local ranchers who have been pleased with the results.

The oiler consists of a five gallon can which holds the insecticide and an eight foot length of giant rope hawser. The can is equipped with a pump which is activated when the cattle rub against the

cal industries we urge you to inspect these improved oilers and try them out. They seem to be fool proof and are considerably cheaper than most of the other models we have seen.

A new, potentially valuable estrogenic hormone has been isolated from Ladino clover, and its structure has been determined by Agricultural Research Service scientists, the U.S. Department of Agriculture announces.

This estrogen has been named "coumestrol." It is known to be present in alfalfa and strawberry clover, as well as in Ladino clover. The new hormone was discovered at USDA's Western Utilization Research and Development Division, Albany, California.

Estrogens, which regulate specific growth and reproductive activities, are on type of the chemical compounds known as hormones. They occur naturally in both animals and plants or they can be synthesized. Stilbestrol, used to promote faster weight gains in feeder cattle and poultry, is a useful synthetic estrogen. Synthetic estrogens have been extremely valuable also in human medicine.

Estrogens that occur in animals are secreted by the ovaries and are associated with female sex development. Less is known at present about the character and function of estrogens in plants.

Coumestrol is not only different in chemical structure from known animal estrogens, but it differs also from plant estrogens previously isolated. Although estrogenic compounds are known to be active in about 40 plants, only a few of these plant hormones have been isolated.

The new compound, a crystalline substance, is about 50 times more active than genistein, one of the most potent estrogens previously reported in forage crops. However, it is considerably less powerful in its effects on animals than the synthetic estrogen stilbestrol.

In livestock rations, estrogens may have either good or bad effects. For example, stilbestrol can increase meat production efficiency and rate of gain in weight of beef cattle. This estrogen is used also in the poultry industry to fatten chickens for market (by causing chemical caponizing). But when animals are fed or graze upon forage containing excess estrogens (or feed excessively on forage having estrogenic activity), a decrease in their fertility, and stillbirths or early death of their young, may result.

Interference of estrogenic forage with normal livestock fertility occurred spectacularly among sheep in western Australia during the 1940's. The cause of the decline in

reproductivity, at first not understood, was eventually traced to excessive intake of clover estrogen. This was due to a combination of wartime shortages of fertilizers and bulk feeds, and scanty rainfall in the area, which caused a much greater consumption of clover per sheep than was normal.

Estrogen behavior in plants is just beginning to come under systematic scientific study. An early experiment at the Purdue University Experiment Station, for example, demonstrated wide variations in estrogen concentrations in alfalfa during the growing season. Workers there, however, did not determine the nature of the substances responsible for the effect.

It has also been noted that alfalfa leaves have more estrogen than the flowers, and the flowers more than the stems. The Purdue work indicated that alfalfa silage made

Variety Meats

Shipped Abroad

U.S. shipments of variety meats to foreign countries have been skyrocketing in recent years and bringing a substantial return to American farmers and exporters, according to the Foreign Agriculture Service of the U.S. Department of Agriculture. People in the U.S. have been eating more and more meat—to a record of 167 pounds per person last year. But the variety meats—liver, tongue, sweetbreads and heart, for example—in spite of their high nutritive value have not been in heavy demand. While per person consumption of many cuts of meat

has gone up, that of the variety meats has remained the same. But abroad, especially in Europe, variety meats are relished.

with blackstrap molasses contains more estrogen than alfalfa in pasture or alfalfa ensiled without molasses.



WAYNE HICKERSON

rope and small amounts of the solution are pumped out to be absorbed by the rope. This keeps the rope saturated and guarantees that the cattle will receive adequate protection.

The can is mounted on a post about 60 inches above the ground and the other end of the hawser is anchored to a dead man with adjustable linkage to allow for the slack to be taken up or let out. Hickerson says that the installation of the oilers is important for their success and that he supervises the setting up of each unit that he sells.

Each unit, he says, will accommodate from 50 to 75 head and will protect them from lice, ticks, mosquitoes and other insects as well as providing a way for the animals to remove dead hair. "It will keep them off the fences," Hickerson says, "and will save you an average of 50 pounds of beef per animal per year."

In the interest of supporting lo-



BEER BEEFS UP BULL. Down the hatch of a junior yearling bull named Vermillion Supreme gurgles a bottle of beer served up by Bill Kiser of Waukesha, Wisconsin, before the guzzler goes out to the show ring at the International Dairy Show in Chicago. Many exhibitors feed beer to their prize stock judging competition, claiming that it improves the animal's appearance. One showman says he pours a fifth of whisky into one of his prize bulls, and the "animal does real good."



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