

North Countries

Tackle Livestock Disease

“**W**E DON’T HAVE MUCH TROUBLE with contagious diseases here,” the young Norwegian veterinarian told me. “In the part of the valley I serve we have about 5,000 dairy cows and a much lesser number of hogs and horses. Horses are fast giving over to tractors.

“With the exception of vibrionic infection and mastitis in dairy cows, we have few contagious diseases in Norway.”

Later, Norwegian disease control officials told me that there had been no cases of brucellosis in Norway during the last year, and that within a short time even the last vestige of tuberculosis in cattle will be wiped out.

Scandinavians have either eradicated or kept out of their country a whole parade of contagious diseases that run rampant through the livestock herds and flocks in our own country. These include diseases like hog cholera, trichinosis, rhinitis, and vesicular exanthema in swine, Newcastle disease and fowl cholera in poultry, rabies in dogs.

Brucellosis, tuberculosis, and anthrax have been brought under strict control.

How do they manage it? Well, let's look at their disease control programs.

Just as in our own country, they have an effective tuberculosis program to eradicate the disease from their cattle. Today the disease is disappearing. Finland and Norway have gone a step further. They have control programs for avian type tuberculosis that infects both chickens and hogs. We have hardly started in this country on this control task.

Thirty years ago 80 per cent of the Danish dairy herds had tuberculosis. Today, for all practical purposes, tuberculosis doesn't exist in Denmark. It is about the same story in the two other Scandinavian countries. In order to erase the last vestige of the disease in Norway and Finland, the entire reacting herd is generally slaughtered, and control measures taken with the same precision that we used in America to eliminate foot-and-mouth disease.

Today American livestock men and health officials are becoming more and more concerned with the eradication of brucellosis. The Scandinavian countries several years ago rolled up their sleeves and went to work to get rid of this disease, not just half-heartedly control its spread. With the exception of a few states like Michigan, Minnesota, and Wisconsin, we have nothing in brucellosis control that comes anywhere near approach-

ing the effectiveness of the Scandinavian programs.

At the head of the list stands Norway. In 1935 there were 3,000 infected herds in Norway. In 1951 they did not have a single reactor. Finland had 4,000 herds infected with brucellosis in 1945. Five years later, less than 100 herds had reactors. This represented one reactor to every 8,000 head.

In 1938 Sweden started an intensive campaign to get rid of the disease. Around 50 to 70 per cent of the larger herds in the country were infected. The program, incidentally, carried out the recommendations of the leading research veterinarians in America.

Today, Sweden has around 370,000 dairy herds. Only 1,200 of them have brucellosis reactors. This is a little less than 0.4 per cent, or 1 herd out of every 250. Sweden hopes to have the disease completely eradicated in three or four more years.

During the thirties, 20 per cent of the herds in Denmark had infected animals. In some districts as many as 40 per cent of the dairy herds showed reactors on blood tests. The Danes have made slower progress than the other Scandinavian countries, but they still have reduced to 6 per cent the herds with reactors. In sharp contrast, about one herd out of every five in America, has brucellosis reactors, and about 1 animal in 25 has brucellosis.

There are no secrets in the methods these countries are using to get rid of brucellosis. With the exception of the ring test for milk, they use

the same weapons that we have known about for years. True, they are not faced with the problem of beef cattle. They have only dairy cattle. But their success still depends on the strong determination of these countries to get rid of the disease once and for all.

Since 1948 Finland has slaughtered all brucellosis reactors. In acute cases, abortion storms, the entire herd may be destroyed. They have used no vaccination since 1946. It is compulsory for farmers to test their herds when an abortion occurs on the farm. Ring tests on milk are run at all the dairy plants. In case of ring test reaction, the animals in the herd are given blood tests. Norway has about the same regulations, and they do not vaccinate either.

Sweden requires slaughter of reactors only in clean areas, but cattle cannot move from infected areas to clean areas. Infected cows must not be sold except for slaughter or into infected herds. Ring tests are made on all milk coming into the dairy plants to spot infected herds. This is followed up by blood tests of the individual animals in the herd if reaction is found on the ring test. Strain 19 vaccine can be used on permission, but actually very little vaccine is used in Sweden.

Denmark, too, uses the ring test three times a year on all dairy herds. Reactors may be removed all at once or gradually, depending on the number. Once 90 per cent of the herds supplying a dairy are clean, then the other 10 per cent of the

farmers must clean up their herds. Vaccination is used in Denmark, but only on permission from livestock health officials. Normally, permission to use vaccine is not granted except in herds that have had abortions, or if 20 per cent or more of the animals have positive brucellosis blood tests.

If a farmer keeps reactors in Denmark, he must keep them isolated. The law even requires him to keep the reacting animals at least three yards from his neighbors' land. If he pastures next to his neighbors' land, he must put up an additional fence three yards from the boundary fence. Dairies pay less for milk from infected herds. For many years these countries have required that skim milk or whey returned to the farm be pasteurized.

There is no hog cholera in any of the Scandinavian countries. Outbreaks have occurred, the last in Norway was in 1930. Sweden had a few outbreaks during the war. Both were quickly eradicated by disposing of the animals and quarantining the area.

Recently in America we had many widely scattered outbreaks of anthrax, particularly throughout the Midwest. It was thought to have been brought into the country in imported bonemeal. Left to their own, without national guidance, each state moved independently to stop the spread. But by then much of the damage had been done, and many new farms and new areas were seeded down with anthrax spores capable of living for 20 or 30 years in the soil.

Since Scandinavia must import much of its feed-stuffs from other countries, it, too, is in constant danger of introducing anthrax. A few outbreaks occur each year, but with this difference. These countries are prepared to stop the disease in its tracks and prevent the seeding down of anthrax spores in new areas.

How many times have you read in the papers of children being bitten by mad dogs? Far too many times! But you don't read about it in Scandinavian papers, for there is no rabies in the Scandinavian countries.

Dogs must be held in quarantine before they come into the country. While it has angered many movie stars, rich old ladies, and even a few ambassadors who insist on traveling with their pets, it has kept Scandinavia free of the scourge. Last year Finland had 27 dogs along the Russian border come down with rabies. It was thought to have been brought across the border by strays. The animals were disposed of and the disease stopped by compulsory vaccination of all dogs in the eastern section of the country.

It would seem that in most parts of America we prefer not to have compulsory vaccination of all dogs. We would rather wait until the children are bitten and then vaccinate the children.

Every year in America we have cases of trichinosis in our people. It comes from eating infected pork that is either raw or improperly cooked. We have tried to keep it under control by requiring

pork to be frozen and encouraging housewives and restaurants to properly cook pork before serving it. Scandinavia has tackled the problem from the other end. They require official inspection of the meat and compulsory cooking of garbage fed to hogs.

Today, we Americans have been greatly concerned with the possibility of foot-and-mouth outbreaks. We are all aware of the effective campaign waged against the disease in Mexico and more recently, during the outbreak in Canada. On previous occasions, we too, have eliminated the disease from our own country.

Southern and central Europe are hotbeds of infection. With infection running high in bordering countries, it is not easy for the north countries of Europe to control foot-and-mouth disease. About every three years the disease builds up in intensity in Europe. It is then that outbreaks are apt to occur in Scandinavia.

Finland recently had a new outbreak of foot-and-mouth disease. It will be wiped out by slaughtering infected herds and stopping the movement of livestock in a zone around the infection. A method similar to that has been used in America, Canada, and Norway.

When the disease starts building up in Germany, Sweden vaccinates the cattle in its southern province of Skaane. As single outbreaks occur, the infected herds are destroyed and an almost military control of livestock movement is slapped on in

the area. If the disease becomes widespread, they use a combination of vaccination and slaughter of infected animals, similar to the program used in Mexico.

Denmark, with a common border with Germany and many of its islands only a few miles from the continent, stands in constant danger of the disease by reinfestation. She tries to keep the disease down by controlled vaccination. While vaccination has lessened the severity, it cannot be said that Denmark has eradicated foot-and-mouth disease.

Why have these countries been more successful than we in keeping down infectious diseases? It is true that they have some advantage over us. Much of their livestock is kept in small herds and flocks. Few farms have the large number of cows, hogs, and poultry that you find on many American farms. Frequently the farms may be scattered and farther apart. This is particularly true in some parts of Norway and Finland. On the other hand, in Denmark and even parts of Sweden and Norway, you will find just as great a concentration of livestock as we have in areas like Wisconsin and New York. There is also a constant source of infection in nearby countries, some of which join their borders. Frequently in the north woods and in the mountains, the young stock run on common grazing grounds in the summer so that the cattle from many farms are mingled together.

These countries have the advantage that they

do not have the great movement of livestock that we have in America. Few animals go from one farm to another. When they do, it is generally only to another farm a short distance away. These countries do not have anything that corresponds to our salesbarns or large terminal markets like Chicago, St. Paul, Omaha, and Denver. Nor do they move livestock over long distances from one area to another as we do with feeder cattle, sheep, dairy cattle, and feeder pigs. Even the slaughtering is done in small, scattered packing plants rather than in great terminal centers.

While this may have made the job easier, it is not the whole story. The same operating conditions exist in parts of central Europe, yet disease runs rampant through these herds and flocks.

I think there is an important reason why Scandinavia has blazed the trail far ahead of us in disease control. When a new disease, like vesicular exanthema in hogs, comes along, the Scandinavian countries immediately jump on it. "Let's get rid of it," is their battle cry. We in America are more apt to sit back and say, "Oh well, they'll find a cure or a new vaccine for it."

It is true that our scientists have led the world in the development of vaccines and effective medications, but the tragedy is that a cure is only good after the animal has taken the disease. As we should have learned in recent experience with hog cholera vaccines, even the best of them is seldom, if ever, 100 per cent sure. The disease

continues to be a constant threat and constant cost year after year. The Scandinavians are more apt to look on these things as extra tools to exterminate the cause. We are more apt to look on them as a means of living with the disease.

In Scandinavia the job of disease control is done with surprisingly limited personnel. There are only 300 veterinarians in all of Finland, only 67 district vets directly responsible for disease control work.

Disease control laws differ in each of the four Scandinavian countries. Their greatest advantage over American laws is that they provide better central control and coordination. Most of the countries provide greater freedom in moving against an outbreak of any new disease not spelled out on the statute books.

Of even greater importance than the laws is the cooperation between farmers, dairy, and meat packing plants, and disease control officials. Since most of the dairy and meat packing plants are cooperatives owned by the farmers themselves, they have led the way in encouraging disease control programs.

Much of the burden for disease control is placed on the dairies and packing plants. All slaughter animals must be inspected by an official veterinarian and any disease reported at once to the disease control people. Under the Scandinavian slaughtering system, each animal is marked so the disease can easily be traced back to the farm from

where it came. This is one great weapon that disease control officials in Scandinavia have that our people do not. One of the quickest places to spot a disease outbreak is in the slaughter plant.

The Scandinavian extension people, along with the dairy and meat packing plants and farm organizations, have banded themselves together to educate themselves, as well as the livestock producers, of the dangers and control of contagious diseases. Compulsion has been of secondary importance. In Sweden even the local agricultural societies that direct local extension work have their own extension veterinarians.

Scandinavia has indeed done an outstanding job of disease control work. We could well copy their example and make America the healthiest place to raise livestock!