

Hog Cholera Is Dangerous Today

For Safety Against This Ailment Certain Precautions Are Needed.

(Prepared by the United States Department of Agriculture.)
A recent investigation of the hog cholera situation by the United States Department of Agriculture reveals surprising carelessness among farmers in dealing with the disease. The effectiveness of the preventive-serum treatment has given many swine owners a feeling of security which is not real. "Yet without proper safeguards," declares Dr. U. G. Houck, in charge of hog cholera control, "the disease is just as dangerous today as it ever was."

For safety against this disease it is necessary to observe certain precautions. Isolate all new stock, keeping it apart from other hogs for a period of at least two weeks. This precaution applies especially to hogs purchased at public sales or other sources likely to spread infection. Permit no sick hogs to roam at large. Keep hog lots properly fenced and maintain the fences in good repair. Burn or bury deeply the carcasses of animals that die on the farm. Dead animals lying above ground attract dogs. Many outbreaks have been traced to portions of diseased carcasses carried from place to place by dogs. Do not attempt to hide the existence of the disease, since every hidden center of infection is a menace to surrounding farms.

The preventive-serum treatment is a dependable insurance against hog cholera, but this treatment, it should be remembered, is a preventive and not a cure. By adopting the foregoing safeguards swine owners may largely reduce the loss from hog cholera which last year exceeded \$20,000,000.

Developing Implements for Use in the Orchard

It is always a problem to avoid barking the tree trunks and tearing the branches when plowing and disking an orchard. This is especially true when the work is done with teams and the ordinary field implements. To solve this problem, some of the manufacturers have given special attention to the development of orchard implements. When these implements are used with a tractor that may be kept under perfect control when used under trees very little damage is done.

Special plows for orchard use are built very low, without levers extending above the frame, with the axle on the underside of the beams and with a very narrow truck. The entire design is to reduce the barking of the trees to a minimum and make it possible to avoid catching limbs in operation. Both moldboard and disk plows may be secured for orchard use. In localities where the soil becomes extremely hard or in localities where there is a sticky gumbo type of soil the disk type of plow will give better results than the moldboard type.

Best Time to Purchase Different Dairy Feeds

A survey of the various feed markets indicates that wheat bran usually reaches bottom price in June, July and August; linseed oil meal in May, June and July; cottonseed meal in August, September, January and February, and gluten feed in May, June and July. By making out their feed budgets accordingly and buying what feed they need at the proper time, dairymen not only can make an important saving in feed costs but also will probably feed a better ration. It is pointed out by C. S. Rhode, dairy extension specialist of the college of agriculture, University of Illinois. Illinois dairymen should, and do, produce most of the feed that is necessary for their cows, but in most cases it is advisable to balance the home-grown grains with high protein feeds. It therefore is to the advantage of the dairymen to study the feed markets and determine when these feeds can be bought at the best price, he said.

FARM NOTES

- Does your farm have a name?
- Pure-bred sires should be judged by their progeny rather than by their ancestors.
- Feeds are low, and farmers who have money or plenty of credit may profit by laying in a supply of feed for fall use.
- Kansas now has more than 3,000,000 head of cattle and ranks fourth in the United States in beef cattle production.
- Tuberculosis of fowls should be watched for at all times, as its influence in the control of fowl cholera is not to be ignored.
- Do not feed brood sows for 24 hours after they farrow. They should have plenty of fresh, clean water all the time, but should not be back on full feed for at least eight or ten days.
- With potato seed high, farm management experts advise planting less to the acre. And a bushel of table stock sold now may bring enough to buy two bushels of certified seed next year.

Give the Farm Home a Distinctive Name

Movement Fostered in Tennessee for Past Four Years.

(Prepared by the United States Department of Agriculture.)
"Name your farm home" is the slogan of a movement fostered by home demonstration agents in Tennessee for the past four years. More than 3,000 homes have already been named, according to a report received by the United States Department of Agriculture. This year the idea is again being stressed, as there are still many homes which have not registered a distinctive name either with the extension service or the state department of agriculture. The state recently passed a law permitting such registry.

Farm home owners are urged to give some thought and trouble to the selection of the right name. It should be dignified, suitable, lasting, not too common, easy to say, easy to read, and easy to remember. It should appear on the mail box or over it, or on a signboard, or on the gate. It is intended that it should be used on letterheads and on the label of anything sold from the farm.

The naming of the farm home is often the first step in general home improvement. There is an effort to live up to the spirit which has been embodied in the new name. The indirect effect of the name can often be seen in the grading and standardizing of products offered for sale.

Farm Shop as Important to Farmer as Railroad

The farm shop is just as important to the farmers as division point and terminal shops are to railroad managements. C. K. Shedd, rural engineer at the Kansas State Agricultural college, is convinced. "It looks as if higher prices for machinery have come to stay, and it will no longer be possible for farmers to follow the wasteful method of using a machine until it is out of repair, then throwing it away," says Shedd.

If the machinery is to be kept in service longer it must be maintained, he points out. "A farmer cannot afford to go into the busy season with machinery that is just about ready to break down," he declares. "Suppose that one is using a cultivator with dull shovels and wabby beams. If weather conditions are favorable through June and the ground stays reasonably mellow he can do good work with such a cultivator. On the other hand, if the weather is rainy for a week just when cultivating should be done, the ground is beaten down hard and has a healthy growth of weeds when it dries. Now with such a cultivator it is impossible to do good work."

"I have known a farmer to lose 25 bushels of corn per acre because of the work done by such a cultivator. Probably most farmers of several years' experience have observed similar results—in a neighbor's field, of course."

Practical Suggestions for Pruning Grapevines

Prof. Joseph Oskamp of the Cornell College of Agriculture gives the following directions for training young grapevines:

"At planting time, and the year after, young grapevines should be cut back to two buds and tied to stakes for support. The second summer each vine should send out a cane long enough to be tied to the top wire of a trellis. This trellis, if the Kniffin system of training is used, should have two wires, one at a height of five feet and the other three feet from the ground. Number 9 or 10 wire is generally used and strung on posts set 25 feet apart.

"In the summer after the third pruning, canes will develop from the one tall trunk left, and all of these should be removed in the winter pruning except two at the top wire and two at the lower wire; these four canes should be tied to the wires to the right and left at right angles to the upright trunk, and should be cut back to four buds each."

Lack of Equipment Will Cause Orchard Neglect

Lack of equipment has been the biggest single factor in bringing about neglect of the farm orchard, in the opinion of W. S. Brock, of the horticulture department, college of agriculture, University of Illinois. The farmer has been induced to buy the cheapest kind of hand-operated sprayers. A brave start is made with this kind of equipment, but almost invariably the individual loses enthusiasm, not only because the work is hard, but because the time required is many times greater than it should be. The hand-operated sprayer has been a failure because men have refused to work it.

Apple Pomace for Cows

Dried apple pomace, when compared with dried beet pulp and corn silage at the Virginia experiment station, showed that one ton of pomace was about equal to three tons of corn silage and that one ton of beet pulp was about equal to four tons of corn silage. The pomace was highly relished by the cows and was an excellent appetizer. The experimental results indicated that the value of the pomace was 75 per cent of that of dried beet pulp and that the present price of pulp is too high in comparison with corn silage.

FISH 5 DAYS FOR ATLANTIC CABLE

Thrilling Experiences Attend Mending of Strands in Heavy Gale.

Fayal, Azores.—The deep, black Atlantic wave mountains roll on endlessly, kicked up house-high by the furious northwest wind. The sky is leaden. For eleven days and nights our cable steamer has been rolling in this sea. Only once did we see the smoke of another steamer.

The ocean here is void, and the cable ship is pursuing its lonely path. We had to repair a broken trans-Atlantic cable of the line between New York and Fayal, and therefore our steamer, the Great Western's Colonial, had gone out to the very midst of the ocean.

We found the water was 3,000 fathoms deep. Three miles to the unexplored bottom of the Atlantic! But somewhere in that depth lies the nerve of the world, the cable, and it thrills with the messages of the people of two hemispheres. The Azores-America cable must be hauled on board and repaired. Of course, such repairs are not rare, but they seldom have to be done out on the sea, usually only near the shore, where a ship lets its anchor drag negligently.

How repair a cable in the very heart of the Atlantic? A cable hardly an inch wide. The water pressure of many thousands of tons holds it clasped to the bottom of the sea. Unknown currents deep down in the ocean may have washed it miles away from the spot where it was laid decades ago. It is thousands of kilometers long—who can tell where the defect is located?

The Azores-New York cable is 2,328 miles long. Precise machines at the end stations in New York and in Fayal register the resistance of the current of this cable. The normal figure is 4,656 degrees; that is, each mile of the cable has a resistance of two degrees.

With this figure the cable is intact. But of late it registered only 2,312 de-

grees in New York and only 1,444 at Fayal. The cable was defective. According to estimates, the defect was to be sought around 1,600 cable miles east of New York. The *Colonis*, therefore, drove out in the heavy northwest gale. It found the place 1,800 miles east of Sandy Hook and fished five days for the cable. The five-fingered grasping hook was searching on the sea bottom incessantly. Day and night the *Colonis* swam about in a slow pace, from north to south, and from south again to north.

Watch Day and Night.
Day and night the engineers stood watching at the dynamometer and looked at the red needle on a horizontal scale which indicated the resistance in numbers of tons. A hundred times the machine telegraph gave shrill signals to the engines, the ship stopped to haul in the hook. Very slowly the steel rope was wound up over a drum on board. The steel rope is hardly as thick as a man's thumb, but it is 6,000 meters long and can lift forty tons. It is worth \$2,500,000, and each unexpected turn of the winds may tear this heavily burdened rope.

Now and then the red needle jumps back a few hundred fathoms. This means that the hook has lost its prey. Somewhere it has come upon a submarine obstacle, perhaps a rough rocky wall. After hours the hook comes on board and brings along a wrecked ship. Which ship? When wrecked? Whence did it come? Nobody knows the answer.

On the sixth day the hook works with great regularity and finds the cable. The hook has a cutting edge so as to slash the cable as soon as it finds it, clutching only one end of it instead of hauling up the entire tremendous weight of the whole cable. The end to which the hook had caught was carefully brought on board. It was the end that connected with America.

1,600 Miles of Cable Intact.

The engineers connected it with the galvanometer, which lay in a small dark room under deck. When the cable steamer lays a new line it is in constant connection with the station where the work of cable laying started and it is in connection with the station because of the apparatus in that small dark room. A thousand miles of cable may be sunk in the ocean, 3,000 more miles may be rolled up in

the storeroom of the ship—the cable dispatches from the sending room of the cable steamer run through the entire 4,000 miles to the furthest shore.

The end we caught gave a perfect connection with New York. The 1,600 miles of American cable thus were intact. New York apparently controlled this part of the cable without any difficulty. It gave signs of complete control till the *Colonis* landed in Pim bay, on Fayal. The obstacle, therefore, must have lain somewhere more eastward. Apparently a submarine earthquake had torn up the bottom of the sea and damaged the cable, which, strange to say, showed no traces of animal or plant life.

On other cruises we usually hauled up strange plants and animals up to 1,000 fathoms depth. But this cable, which lay for decades at a depth of 3,000 fathoms, showed nothing but slight mineral crystallizations on the gutta-percha insulation cover, which had remained unchanged since the day when the cable had slipped down to the bottom of the Atlantic ocean. The great cold of the deep sea, which is always just a bit above zero, had kept away all life and preserved the cable.

A thousand miles of new cable lay in the storeroom of the steamer. The repair could be done in no other way than by attaching a new cable to the old one. The weather made it almost impossible to look for the other end of the cable and to find its defective spot. It might have taken months, and every day cost \$3,000. So the old cable was welded into one with the new cable and was sent down once more to the bottom of the sea. It was a wild, storming and rainy night. Like a black serpent the cable rolled overboard. The engineers held close watch in front of the scale of the dynamometer, which showed the figures 30, 40, 50, 60, 70. Each figure meant a hundredweight. Usually the free pending end of the cable weighs two or three tons before touching the surface of the water. Of course, the more water it displaces, the deeper it gets, the lighter the cable weighs on board.

Anxious Moments.
But now suddenly the dynamometer went up considerably—80, 90, 100—120! What has happened? For moments it wavered between 130 and 140. The cable would have to tear! The pending piece of the cable reached the weight of seven tons—that is, it was

above the limit the steamer could stand. And just then there were great depths in the sea indicated by my map. If the cable touched no ground for many more miles it would have to tear and disappear in an endless depth, where the diverse currents would make it impossible for us to find it again.

The whole crew was alarmed. The breaks required the greatest attention now. The pulling power of the cable had become so great that it threatened to tear out all the rest of the cable which was rolled up in the storeroom.

One moment of negligence—and hundreds of miles of cable would shoot without any resistance down into the ocean, while destroying everything in their course.

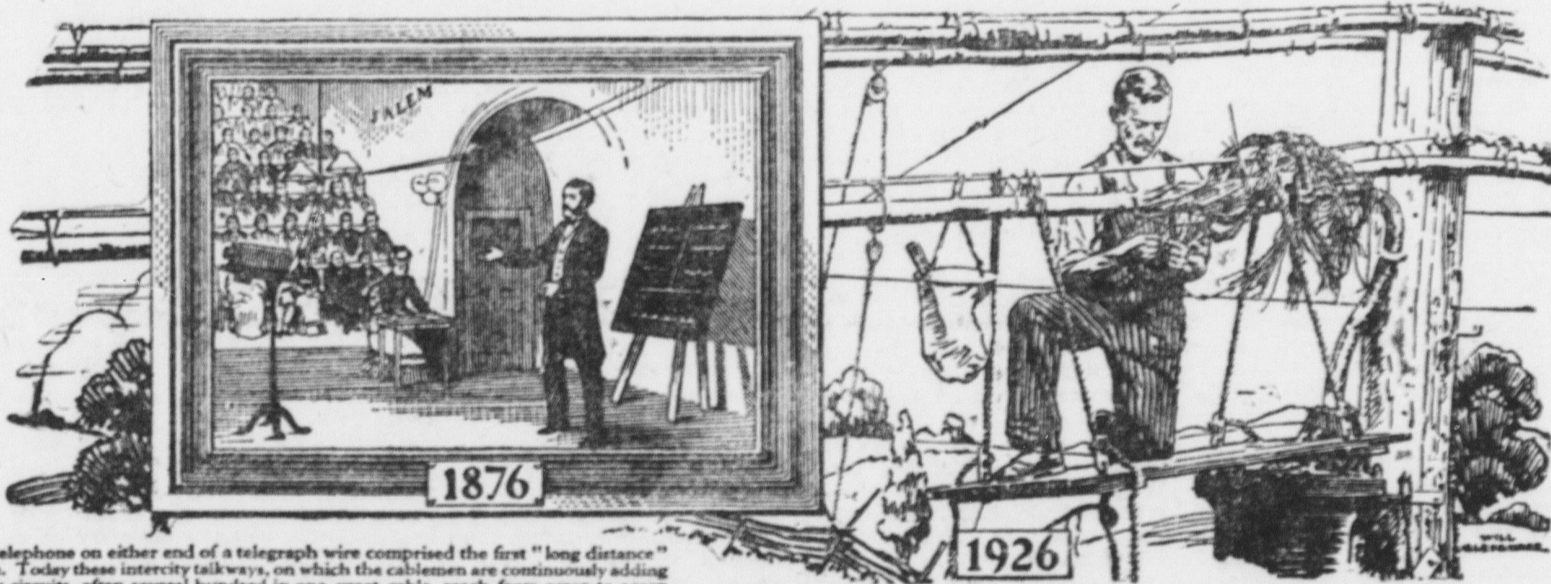
The tragedy of the first cable ship, of the Great Western, revived terribly in our memory. . . . Then, thank goodness, the dynamometer showed a reaction. But once more it went up dangerously and threateningly.

For twenty-four hours the Atlantic cable was in constant peril. Then the ground of the deep sea, which is always just a bit above zero, had kept away all life and preserved the cable. A thousand miles of new cable lay in the storeroom of the steamer. The repair could be done in no other way than by attaching a new cable to the old one. The weather made it almost impossible to look for the other end of the cable and to find its defective spot. It might have taken months, and every day cost \$3,000. So the old cable was welded into one with the new cable and was sent down once more to the bottom of the sea. It was a wild, storming and rainy night. Like a black serpent the cable rolled overboard. The engineers held close watch in front of the scale of the dynamometer, which showed the figures 30, 40, 50, 60, 70. Each figure meant a hundredweight. Usually the free pending end of the cable weighs two or three tons before touching the surface of the water. Of course, the more water it displaces, the deeper it gets, the lighter the cable weighs on board.

Only One Woman Bobbed in Population of 11,000

Paris.—The fortified island of Re, lying off La Rochelle, believes it holds the world's record for the scarcity of the bob among its female population—at least a record for that portion of the civilized world which has been swept by the mania for shorn locks. In a population of 11,000 there is only one bobbed female head.

Until four months ago, all the women of Re wore their tresses long. Then came Henri Beraud, winner of the Goncourt prize for literature in 1923, and with him came Madame Beraud with her hair modishly clipped. Her example, however, has not been followed by the women of Re, who, like their sisters of all the islands of the French Atlantic seaboard, are proud of their beautiful long hair and would consider bobbing it a desecration. The trade of the barbers of Re still is limited to male customers, whose average is about one shave a week and a haircut every two months.



"Long Distance," then and now

The first public demonstration of "long distance" telephone conversation was held in November of 1876 between Boston and Salem, fifteen miles apart. At both points were posted notices commanding absolute silence of those present, lest the experiment fail.

As lines were established between more distant cities, the struggle with "outside" and "inside" noises increased. Those who used the toll service in the Nineties and even later will recall how they had to shout to drown out the buzz and crackling on the wires, if possible.

In fair weather, all went well—sometimes. But the storms of winter, and even of summer, put the crude lines out of service in wholesale fashion.

It is not unnatural that fifty years of telephone history should have marked great progress in these respects.

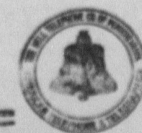
That the ordinary tone of voice now carries to the Pacific or to Cuba perhaps causes no public wonder—certainly not so much as to the thousands of technicians who worked so many years against great obstacles to accomplish it.

We are fast approaching a practically storm-proof plant in Pennsylvania, in which over three million miles of exchange wire and a quarter of a million of toll wire are now in cables.

In many ways not consciously observed by the users of the service it is being surrounded by continually increased protection and dependability. And today, greater effort is being made along these lines than at any previous time in our fifty years of history.

F. L. RICHARDS, Manager

THE BELL TELEPHONE CO. OF PENNSYLVANIA



ONE POLICY, ONE SYSTEM, UNIVERSAL SERVICE