

say to lessen the size of the collar by use of a pad or other means.

In addition to having a collar that fits properly, it is necessary to keep it thoroughly clear of accumulation of sweat, dust, etc. During the first few days of work in the field, the team should be given a few minutes' rest occasionally, when the collars should be lifted forward on the necks in order to allow the shoulders to become dry and cool, when it is good practice to hand-rub them to remove dried perspiration, and lift the mane from under the top of the collar before starting again. The untoward results of the friction and pressure of the collar upon the shoulders are varied, and we cannot tell why they should act in one way on one horse, and in another on his mate.

The most common form of sore shoulders is practically a scalding. The shoulder becomes tender and hot, probably no swelling; the hair falls out, the skin becomes reddened, and soon raw. In these cases, as in other forms of sore shoulders, of course, the proper course is to give rest and treatment until a cure is effected. But in many cases horses are scarce, and the work must be done in a certain time, and rest is practically out of the question so long as the animal is able to work. Probably the best treatment is a dressing made of one ounce each of sulphate of zinc and acetate of lead, to a pint of water. This should be applied four or five times daily. Various means are taken to relieve pressure upon the sore parts. Some use pads with holes that fit over the sores, some cut or pound cavities in old collars, but all devices are more or less ineffective, as they tend to put extra pressure upon other parts of the shoulders. These are likely to become sore and complicate matters. When it is necessary to work a horse with sore shoulders, the better plan is to use a large breast collar. This can be done with reasonable satisfaction, except when machinery or vehicles with tongues are used.

In some cases of sore shoulders of this nature, it will be noticed that the diseased skin parts from the healthy skin in a circle, but a portion in the centre remains attached to the underlying tissues. This is called a "sit-fast," and it is necessary to dissect the portion of healthy skin in the center from its connection with the muscles, in order that the whole may heal. Sometimes, instead of a scalding, the result of pressure by the collar is the formation of an abscess. Abscesses are of two kinds: One contains a reddish, watery fluid, and is called a "serous abscess"; the other contains pus, and is called a "purulent abscess." The former kind forms quickly. An enlargement is noticed; manipulation reveals a soft, fluctuating tumor containing a fluid, just underneath the skin. A purulent abscess forms more slowly. The horse exhibits soreness when he is asked to draw. An examination reveals a swelling on the shoulder. It is hard, warm and tender. After the first few minutes at work the animal will probably show little inconvenience until after he has again stood idle for a few minutes, and in many cases the swelling becomes smaller; but the next morning the swelling and soreness are more marked, and in most cases in a few days it becomes soft in the center, and if not lanced will burst and discharge pus; while, in other cases, the pus is very deep-seated, and it is not possible to tell, without exploring with a knife and probe, whether there be pus present or not. In case of either form of abscess, treatment consists in lancing at the lowest part to allow all serum or pus to escape, and then flushing the cavity out well three times daily with a good antiseptic, as a five-per-cent. solution of carbolic acid. In case of a hard tumor, whose character cannot be determined without exploration, an incision should be made through the skin about the center, and a probe forced through towards the center of the tumor in search of pus. If pus be in small quantities, be found, the above treatment will effect a cure, and the enlargement will gradually disappear. Even though the walls of the abscess be thick, during the healing process; but if there be no pus present, the enlargement is a fibrous tumor, and the only treatment is dissection, which should be performed by a veterinarian. In case of either abscess or tumor, rest, or working with a breast collar, is necessary.

Another trouble often noticed is sore necks. The neck just under the collar becomes sore. This is caused by weight or pinching of the collar, and appears especially on horses that are worked to machines with tongues. It often takes the form of the appearance of a succession of boils. Treatment consists in lessening the weight as much as possible, lancing each boil, and dressing with the above-named lotion or other antiseptic and astringent. When intelligent and careful preventive measures, as those mentioned, and the removal of the collars at meal times, are observed, sore shoulders should be seldom seen. "WHIP."

### Forage or Mold Poisoning.

Iowa farmers have suffered heavy losses in the past few months by the death of horses from a disease that affects these animals almost exclusively. It is usually fatal; it is not contagious, and it is quite certain that it comes from the eating of moldy fodder or grain. There is only one safeguard against it, and that is the rejection of any feed that shows signs of mold. Silage and corn fodder of any kind, and hay from swampy lands need to be inspected with special care, for they are the most likely to be moldy. Cattle often seem to eat spoiled plant food without harm, but to horses it is poisonous.

This disease has been called by various names: Forage poisoning, cryptogamic poisoning, enzootic cerebritis, epizootic cerebro-spinal meningitis, leuco-encephalitis, etc.

It usually appears in isolated outbreaks, and generally the horses on a single farm in a community are affected. In some cases, where horses are not fed alike, only those given a certain kind of feed are taken sick. In these facts there is quite conclusive evidence that the disease is associated with the food eaten, and that it is not transmitted from one animal to another. The outbreaks appear more frequently in low, swampy districts, because conditions there are more favorable for the development of the molds and the undesirable changes in plant foods believed to be responsible for the disease. It is not by any means confined to these districts, however, nor is it limited to any certain foodstuff. It merely occurs more frequently in some foods than others, due to their nature and method of storing.

#### CAUSES.

Forage poisoning is likely to appear whenever moldy grain or fodder is fed to horses or mules, but it does not follow in every case where such food is given. Moreover, it very seldom affects cattle. Horses and mules may sometimes be fed for a considerable time on fodder containing more or less mold, without sickness, while, in other cases a comparatively small amount of such feed will cause death in a short time. Danger lies in the use of fermented foods, also on account of poisons developed in fermentation. Some plants are likewise poisonous at a certain stage of their growth, or when partially wilted. This is true of sorghum, particularly the second growth, which in some cases causes almost instantaneous death.

There are several molds which grow on food materials under certain conditions, which are more or less injurious. The most common are the black mold, the blue mold, and the green mold. They are found most frequently in silage, corn, hay, oats and ground feeds. Moisture favors their development on all foodstuffs.

#### SILAGE.

Silage is one of the most important and valuable foods available to the Iowa farmer, but is often responsible for forage poisoning. Sweet silage is of proved worth as a feed for horses, as well as for cattle, but, speaking generally, silage feeding is attended by some dangers that the owners of silos should know. Silage contains the necessary moisture, and, in most cases, the required heat, to favor the development of molds. On this account it is more often a cause of forage poisoning than other foodstuffs. Perhaps 80 to 90 per cent. of the outbreaks reported to this station come from feeding moldy silage. The quantity of mold may be so small as to be overlooked, and yet be dangerous. Especially is that true of hay coming from low, marshy ground; though the mold in it may not be seen at first glance, there may be enough of it to produce poisoning and death.

Noble corn has been responsible for several outbreaks of forage poisoning. Crops that have been attacked by the corn ear worm are particularly liable to be moldy.

#### SYMPTOMS.

Two forms of the disease are most common, the acute and subacute.

In acute forage poisoning, loss of appetite and lack of thirst, associated with depression and lack of spirit, are usually the first symptoms. Following this usually come unsteadiness of gait and inability to control the hind quarters, which become worse, until the animal either lies down or falls, and is unable to rise. At the same time, there is in practically all cases a paralysis of the muscles of the throat and cheeks, as a result of which there is belching, due to inability to swallow, and a flabby condition of the cheeks, which appear swollen and puffed. After the animal is unable to rise, it will sometimes lie quietly for hours, and sometimes it will struggle or show spasmodic frequent intervals. In acute cases there is profuse sweating and many times a red, staring appearance of the eyes. The temperature is normal or frequently below normal, which is contrary to the fact in contagious diseases.

breathing is usually irregular and jerky. The acute cases invariably die after a course of 12 to 72 hours, and are usually the first animals to be affected after moldy food is eaten.

In sub-acute cases the symptoms are similar to those in acute cases, but they do not come on so suddenly, and are less violent. The sub-acute cases occur among animals that have eaten less of the poisonous food, and they are the last to show symptoms. Dullness and difficulty in swallowing, associated with slobbering and dropping partially-chewed cuds of food into the manger and feed-box, are early signs of the disease. These are followed by increasing paralysis, especially of the limbs, weakness, and often indications of delirium. In fatal cases death follows in from several days to a couple of weeks. A few of the less severe cases may recover.

The length of time between the feeding and the appearance of the symptoms, the suddenness of the attack and its duration, depend upon the amount of poisonous food taken. The course is shorter, from 2 to 4 days, the attack is more sudden, and death soon follows in from 12 to 36 hours when large quantities are consumed.

#### PREVENTION.

Since horses and mules are very liable to poisoning with moldy foods, where cattle may eat the same foods with little or no danger, the method of preventing the disease is clear. Under no circumstances feed horses or mules silage that is the least moldy or decayed. In feeding silage to cattle, do not put it or scatter it where horses or mules can get to it, for they will sometimes eat the leavings in the feed trough after the cattle have picked out the best food. Do not throw waste silage where horses or mules can reach it. Sweet silage is a wholesome food for horses, and of known nutritive value, but unless it is certain that it is perfectly fresh and free from mold it should not be fed to horses at all. Moldy silage has already caused such heavy losses on some farms that it will take all the profits a silo can bring to make good the cost.

The hay, corn, oats and other grains fed to horses should always be of the best quality, and the water troughs should be kept clean, and the water pure and fresh. With all these precautions, forage poisoning can be eliminated.

Iowa Exp. Station.

C. H. STANGE.

### Shoe Boil.

Editor "The Farmer's Advocate":

For the benefit of your many readers, especially for "A. M.'s" inquiry in your issue of February 8th, I should like to say that I have found tincture of iodine a sure cure for shoe-boils. Paint the boil every day, and it will entirely disappear. I had a very bad case; nothing seemed to help, until I was told by an old stallion-owner to use iodine, which I did, with the above pleasing result. It is true that the shoe is, in a large measure, responsible, but a horse will have shoe-boils that never wore a shoe. Tie a bag around the foot at night, or tie horse so that he cannot be on the side affected.

Annapolis Co., N. S.

W. S. P.

We always like to receive experience notes of this character, even though the conclusions implied sometimes require qualification. In this case, for example, all that can be safely claimed is that tincture of iodine was used for a certain case, and a cure resulted. We have had a still more remarkable case on our own farm. A horse that had been employed at circulation work was brought to the farm to be wintered. She had a large, long-standing shoe-boil, but, as the mare was not highly valuable, no attention was paid to it. However, the shoe-boil gradually began to disappear. As stated above, absolutely nothing was done for it. The mare has been kept shod all winter, and stands in an ordinary stall, and the enlargement is about gone. Had either scald or boil, we did not even exercise our common-sense when she came in, whatever we did, whether wise or foolish, would naturally have been given the credit. In the case mentioned by our correspondent, as also in our own, we doubt the cause was in some way remedied. There was neither serum nor pus in the tumor, and the iodine, by increasing the activity of the abscess, arrested nature in reducing the enlargement. When either serum or pus is present, even in very small quantities, neither iodine nor any other application will effect a cure. The shoe-boil is arrested. Again, where there is a large tumor of small size, external application cannot be effective, and dissection must be practiced. The majority of people are too inclined to make hasty conclusions. If our correspondent had been aware of a rapid elbow to treat, he would have known that iodine would fail him. Iodine is an excellent and valuable drug, but as a cure for shoe-boils it has its limitations. We have had a few cases of rapid elbow in unshod horses, but the cause was lying with the shoe, and not upon the heel.