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WATCH FOR ACORN POISONING

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Producers may encounter sick and/or dead cows or calves if they have access to oaks and are eating acorns. The poisoning develops about 4 days after an animal has eaten a large amount of acorns. The problem may affect a high percentage of the herd during an "acorn year" when dry weather causes poor quality grazing. In some areas, of the state these conditions could be present this year. Acorns cause a problem in some animals in any year because certain individuals seem to love eating them, even when grass is good.

Generally, cows and large calves will be directly affected, but baby calves also appear to be affected through the milk and possibly before birth. Acorns can also cause agalactia (no or little milk) in fall calving cows. Affected cattle will first show signs of constipation, followed by an abnormal (dark or yellowish) colored thick diarrhea, sometimes with blood. Most cattle that have the advanced gastrointestinal problems will loose condition rapidly, and have a gaunt, rough, "humped up" appearance with a diarrhea stained tail and rump.

In mild cases, gastrointestinal distress may be the only result, and the affected animals will sometimes recover. In severe cases, kidney damage (tubular necrosis) occurs, and animals

can die within several days. Severely affected animals may be found lying away from the herd, and are dull and listless. If a calf dies, it is critical to get a necropsy to rule out other factors that can kill large calves such as blackleg or some other type of poisoning. Sick cows should be blood tested to rule out anaplasmosis because symptoms can be similar,

and could occur at the same time of year.

The toxic compound in acorns seems to be related to tannic acid, and is thought to be a gallotannin (or possibly a metabolite). One mystery is why cattle can be poisoned, when hogs, deer and squirrels seem to shell acorns and because the toxin is concentrated in the shell, this may explain their resistance to poisoning. They may also learn (or maybe naturally select) to not eat too many.

A grain/protein based supplement containing 10% calcium hydroxide (hydrated or slaked lime) and fed at a rate of 4 lbs/hd/day for cows and 2 lbs/hd/day for calves has been used to prevent the poisoning. This has helped in some situations, but not in others, and probably should not be an alternative to designing a program to keep cattle from eating acorns. If pastures contain a substantial number of oaks, the trees should either be removed or cattle fenced out. An alternative would be to set up a management program that will keep cattle off those pastures from the time acorns start to fall, until several weeks after the leaves have fallen. Treatment is to get animals off of acorns. If kidney damage has occurred, recovery is rare, but animals may be saved if they are confined and fed a ration low in protein.

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