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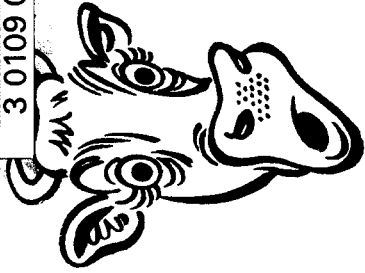
Lumpy Jaw and Wooden Tongue in Cattle

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Chairman, Department of Veterinary Science

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LUMPY JAW AND WOODEN TONGUE is a widespread disease complex of cattle in the United States. Reports of clinical diagnoses made by North Dakota veterinarians show that the disease is found all year in North Dakota, with little or no seasonal incidence. In a typical year there may be 400 to 500 cases reported to the State Veterinarian's Office. This probably represents a fairly small part of the actual number of cases in the state.

The economic loss to the producer from dockage and weight loss cannot be accurately tabulated. If an animal affected with "lumpy jaw" is sent to market the price paid is often docked because the head and occasionally other parts of the animal are usually condemned by the Meat Inspection Service. This is done to protect the consumer.

There are two diseases often called "lumpy jaw," and these are usually not differentiated in reports to the State Veterinarian's Office. Abscesses from other infections are also sometimes given this name. The true "lumpy jaw" is caused by *Actinomyces bovis*. It usually affects the bony tissue of the jaw of cattle and produces a hard, painful immovable swelling. The best name for this disease is actinomycosis. The other disease is caused by *Actinobacillus lignieresii*, and affects the soft tissue. Lesions from this organism are usually somewhat softer and are movable on the animal. The best name for this disease is ac-

tinobacillosis but it is also called "wooden tongue."

It is often difficult to tell the difference between these two diseases, but actinobacillosis is usually found in the soft tissue of the lower jaw and neck. The swellings usually develop slowly but may appear suddenly and grow rapidly. They are hard at first, but gradually get softer as they develop. In advanced cases they may break open and discharge a yellow to grayish white pus, leaving a deep ulcer. The pus contains granules called "sulfur granules." When these lesions develop on the tongue the disease is called "wooden tongue." This form of the disease may cause death if the animal is not treated promptly.

Actinomycosis in cattle usually is a chronic disease of the jaw and surrounding bony part of the head. It seldom affects the mouth, tongue or other soft tissues. When the lump in the jaw or head is cut open, abscesses with a viscid, cohesive yellow pus are exposed. The pus usually is not odorous. It also contains "sulfur granules" which are yellow and cheeselike.

In "lumpy jaw" the teeth often loosen and cattle chew with difficulty. The bone often becomes spongy and swells into the nasal cavity, causing difficult breathing and gradual loss of condition.

A veterinarian can often get infected animals in better condition for market by surgical treatment. He will probably use gauze packs with streptomycin or tincture of iodine. Once the bone becomes extensively involved, treatment will prolong life of the animal, but complete recovery should not be expected. A veterinarian's advice and early treatment of the animal is important.

The disease is occasionally found in man in varying forms. Several hundred cases have been reported in man in the United States. Direct transmission from an animal to man has not been demonstrated, however, and there is some evidence that a strain difference exists between organisms affecting humans and bovine animals. It is still considered prudent to use care in handling infected animals.

Prevention of these diseases is much more desirable than treatment of an infection. Since the organisms are thought to enter through puncture wounds, feeding areas should be carefully checked for sharp objects that might be possible sources of puncture wounds to the cattle. Protruding nails in feed bunks is an example. Feed with many sharp awns and stickers should be avoided. Cattle with active infections should be isolated from areas occupied by other cattle, since the organism is seeded to the area from infected animals.

The diagnosis and treatment of "lumpy jaw" or "wooden tongue" in animals should be done by a veterinarian. He usually will be able to make a differential diagnosis and administer the treatment required. Some of the most effective treatments are painful or toxic to the animal and professional skill is required for their administration.
