

# COWPOX

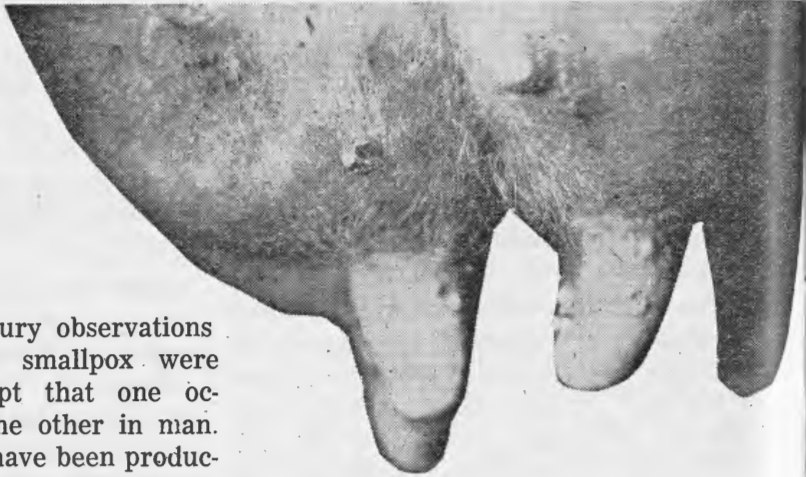
● I. A. Schipper

Early nineteenth century observations indicated cowpox and smallpox were identical diseases except that one occurred in cattle and the other in man. The lesions of cowpox have been produced in cattle following inoculation with materials from human smallpox cases.

When the virus of smallpox is transmitted from man to animals such as the cow it loses its virulence for man and is known as **vaccinia**. This form of the organism is employed in vaccination of man for smallpox. Milkers, whose hands come into contact with true cowpox, often have conveyed to them an immunity to smallpox. There are several published reports of outbreaks of cowpox in cattle through contact with milkers recently vaccinated for smallpox.

Cowpox is caused by a virus. The lesions of cowpox are usually observed on the teats, but may be present on the skin surface of the udder. In some instances it may be observed in the male, with lesions usually occurring on the scrotum.

The symptoms of cowpox usually observed include increased sensitivity of the udder and teats, followed by a papule (skin elevation), vesicle (blister), pustule (boil), and scab in their respective order. Eight to 14 days may elapse between the



first symptoms and the scab formation. Additional symptoms may include slightly elevated temperature, loss of appetite and decreased milk production.

Though death has never been observed, and incidence of cowpox is reportedly declining, an outbreak in the dairy herd will result in lowered milk production with possible infection to the milkers.

Mastitis infrequently is the final result of cowpox infection as constant irritation of the milking process produces open lesions followed by secondary bacterial invasion. Early measures must be initiated to prevent mastitis and further spread of cowpox throughout the dairy herd.

## TREATMENT

Maximum udder sanitation is first in the control and treatment of cowpox. The first step is the use of an effective skin disinfectant and cleansing agent which will not be irritating to the teats and udder. Chlorine is of little value

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in control of cowpox. Very frequently it irritates and produces increased sensitivity of the teats and udder, resulting in the spread of the cowpox infection.

Various recognized quaternary ammonium preparations available today have proved to be most effective. The following preparations are included in this group: Pfanstiehl-20, Roccal, and Zephiran.

In addition to the establishment of maximum sanitation and disinfection to prevent spread of the disease, cowpox lesions must receive special attention. Application of medication which will stick to the area, prevent secondary bacterial invasion, counteract irritation and promote healing, becomes an essential part of the treatment. An ointment containing hexachlorophene is of value for this purpose. This ointment may be obtained from veterinarians.

The following regimen has proved effective in the treatment and prevention of cowpox:

1. Isolate and milk last all animals exhibiting symptoms and lesions of cowpox.

2. Thoroughly wash hands, milking machine inflations, udders and teats with a recognized quaternary ammonium preparation before milking infected animals.

3. Following milking, thoroughly dry teats and udder with clean, disposable towel for each animal.

4. Apply a medicated ointment to teats and udder to prevent secondary bacterial invaders and promote healing, giving special attention to areas exhibiting cowpox lesions.

Animals to be added to an established herd should be isolated for 2 to 3 weeks, and milked following completion of milking of the established herd. Veterinary inspection of isolated animals before admission to the herd will often save the dairyman many dollars in medication for cowpox. ■ ■ ■

## *The Battle Against*

# PLANT DISEASES

● by W. E. Brentzel

The most startling thing about plant diseases is that they cost so much. It is estimated that each year more than three billion dollars are lost from plant diseases. The tragic aspect of this is that much of it is waste. Losses that can not be avoided are regrettable but waste, due to the lack of using known methods of prevention and control, is simply waste. This kind of loss is not in accordance with the nature of man.

It is estimated there are more than 30,000 different economic plant diseases

in the United States. We are able to control, in some measure, about half of these.

In the battle against plant diseases, about a half billion pounds or more of fungicides are used annually, so there is nothing unusual about fighting diseases with fungicides. In many places, and in the culture of a wide variety of different kinds of crops, the use of fungicides has become a regular practice. Such use is anticipated as a part of the

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