Mastitis or Garget

By D. F. Eveleth ¹

Astitis is any disease of the udder and when the milk is in any way abnormal the cow is usually said to have "garget". The dairymen are all familiar with this type of disease and and many have been led to believe that the new antibiotic penicillin or some of the sulfa drugs would quickly eradicate this disease. Many dairymen have considered the treating of those cases of mastitis in which the milk is abnormal as a sufficient control plan. The continued recurrence of mastitis in the individual cow and the appearance of new cases have convinced many dairymen that treatment is useless, others have found that the injection of anyone of the several drugs would clear up the acute condition and so have continued to inject each quarter as evidence of mastitis showed up. Neither of these methods of handling mastitis is satisfactory.

There are three main types of mastitis, one is spoken of as streptococcic, another as staphylococcic, and a third as coliform. In general penicillin treatments, usually repeated several times have been effective in completely eliminating the streptococci from the quarter. The other two types have in general responded much better to the use of the sulfa drugs. There are many cases in which the udder of the cow appears normal and the milk is normal but since the germs are present either "flare-up" of acute mastitis may occur or the disease may be spread to other cows by means of the milking machine or milkers' hands or by flies.

In a herd where mastitis is not present the greatest single danger is in the addition of mature animals to the herd. Heifers may have a dormant infection but it is not as likely as in mature animals. Heifers can be-

come infected as calves by allowing other calves that have drunk infected milk to suck their teats. It is a good plan to tie calves up when feeding them milk and let them eat some hay or grain before turning them loose.

Whenever a replacement cow is added to a herd it is a very good plan to have her examined by your veterinarian and a Hotis test made on the milk. In this way mastitis can be kept out of a herd.

If only an occasional case of mastitis is found in a herd it is wise to have the Hotis test run on each quarter of every cow. Those animals found to be infected should be isolated and either treated, used to raise beef calves or disposed of for slaughter. Usually these chronic cases are not heavy producers and the loss in milk is not great in removing them from the herd. If treatment is used on the mastitis

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cows it should be based on a knowledge of the kind of bacteria present and should be followed up with repeated tests and treatment until the disease is cured.

In those herds where there are numerous cases of mastitis it is frequently the best policy to treat the animals during the periods when they are dry and to use the drug most effective against the organism causing the disease.

Much of the loss due to mas-

titis can be prevented by improved methods of husbandry. Dairy barn sanitation, control of flies, washing the udders, clean utensils, and proper milking will all tend to decrease the cases of mastitis. There can be no control of this disease unless the dairyman makes use of the laboratory examination of the milk for diagnosis and then uses the proper drug to cure the case and removes those predisposing factors which originally caused the disease.

FISH AND MILK PROTEINS ARE A GOOD SUPPLEMENT TO PEA MEAL PROTEIN IN A RATION FOR YOUNG GROWING CHICKS

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Some of the results of these feeding experiments are summarized in the following table.

Average net gain of chicks in grams on pea protein ration, with different protein supplements, with and without Methionine.

Fish Meal	Dried Milk	Meat Meal	Soybean oilmeal	Oat groats	Wheat bran	Ground wheat
No Methionine added						
76.6	73.9	21.7	47.8	35.2	42.5	41.4
Methionine added						
101.8	89.9	100.4	105.6	86.5	94.6	101.0
Per cent increase in gain from the addition of Methionine						
32.3	21.6	362.7	120.9	145.7	122.6	144.0

Only a small percentage increase resulted from the addition of methionine to milk and fish supplements, indicating that milk and fish are a good source of methionine. The large percentage increase indicates meat meal to be a poor source of methionine, and poor supplement to pea protein. Soybean oilmeal, oat groats and wheat proteins were found to be a fair source of methionine.

The results of these experiments indicate that if large quantities of pea proteins are used as a protein supplement in poultry rations for young growing chicks, fish or milk protein should also be included in the ration as a source of methionine to supplement the pea protein. Free access to skim milk would be an excellent supplement to a ration containing peas for the young chick. (Reviewed by D. W. Bolin.)