

ESSENTIALS OF A SAFE MILK SUPPLY IN CITIES OF FIVE THOUSAND AND UP- WARD IN ILLINOIS

CLARENCE W. EAST, M. D., F. A. C. S., ILLINOIS DEPARTMENT OF PUBLIC HEALTH

It is to be noted that the discussion does not turn upon the production of an ideal milk supply. An ideal milk supply would be one in which a clean milk is available within a few hours to every household. An ideal milk supply would involve cows scientifically cared for as to the hygiene of diet, personal health, range and housing. It would involve strict cleanliness of the animal and the milker. The milk must be cooled promptly, stored, transported, delivered and stored again so as to avoid contamination or a temperature favorable to bacterial growth.

It is a pleasure to recognize that the items just mentioned are receiving much attention and to some degree have become fixed in dairy practice. It is on the basis of the increasing attention to healthy and clean dairy animals, healthy and clean milk handlers and proper home storage that even a safe milk supply can be predicated. A safe milk supply is one which secures the proper pasteurization of good milk. Pasteurization does not imply the cooking of dirty and infected milk. Warfare must be kept up to secure all the results of a clean milk.

But there are factors in milk production and distribution which make necessary the proper pasteurization of all milk produced in quantity for distribution to communities of at least five thousand population and above. These factors are:

1. Continuation of sources of contamination.

Dairy barns, milkers and milk handlers do not provide for the same degree of cleanliness found in domestic food handling processes in the dwelling of the dairymen. The housewife has abundant facilities and a long tradition for the cleanly production of foods; besides, she has

the cooking art as a constant ally: but the dairyman works with a living animal in a barn, and with a feeble tradition of personal cleanliness outside of the house and not always a robust personal tradition of cleanliness in the house. About the barn the dairyman is a barn and field worker; the provision in the barn of water supply, soap and towels approximates the barn level rather than the dwelling level. Though improvements are acknowledged, a barn will remain a barn for a long time to come.

2. Infection of milk. For a good while to come milk will be exposed to sources of infection especially in the animal and the milker. Only a few herds are tuberculin tested, and most of the items of veterinary hygiene are scarcely dreamed of. As to the controlling of disease carriers among humans, we have hardly begun it. The average disease carrier of an enteric, a respiratory, a genito-urinary or a skin disease is not thought of as a carrier until after he has spread contagion for a life time; then his control is a very indifferent matter. Milk borne epidemics of disease are started usually by milk handlers in approximately good health.

3. Cooling, storage and delivery of milk.

A strictly fresh milk, even if produced in a clean manner, must be transported and stored, not reaching the consumer as a rule for twenty-four hours and upwards. There is always some bacterial life in any milk, either pathogenic or such as to change the milk materially in palatability and digestibility. Time and temperature are the factors for the increase of this bacterial life. Proper pasteurization only can defeat the effects of this contamination in a clean milk delivered to the consumer in the usual time.

PASTEURIZATION NOT AN EXPERIMENTAL PROCEDURE

In speaking confidently of pasteurization an experimental procedure is not being considered. The greater cities require it invariably. No unpasteurized milk is sold to the public in Chicago, New York or other large cities, but most of the smaller cities lag behind. Evanston on

the north side requires pasteurized milk; Cicero on the west side does not. The only down state cities in Illinois which have a milk ordinance requiring pasteurization of milk at all are Savanna, Decatur, Pontiac, El Paso and Staunton. Such cities as Peoria, East St. Louis, Joliet, Rockford, Galesburg and practically all the rest do not require a safe milk supply.

This constitutes one of the greatest public health causes in our State at the present time. We may expect morbidity and mortality rates in cities not safeguarding their milk supply to exceed those which do. Milk borne epidemics will be in proportion to the proper pasteurization of the milk supply of a community.
