CIRCULAR NO. 148 JANUARY, 1923.

University of Kentucky---College of Agriculture

EXTENSION DIVISION

THOMAS P. COOPER, Dean and Director

Published in connection with the agricultural extension work carried on by cooperation of the College of Agriculture, University of Kentucky, with the U. S. Department of Agriculture, and distributed in furtherance of the work provided for in the Act of Congress of May 8, 1914.

Difficult Churning.

By J. J. HOOPER

Difficulty in churning usually is experienced when (1) the weather is cold, (2) the cows have been milking a long time and (3) the cows are being supplied dry feed.

To churn easier:

(1) In cold weather churn at 5 to 10 degrees F. warmer temperature than in summer and churn a thicker, richer cream. Half-fill a barrel with warm water and place the can of cream in this warm water. In this way keep the cream warm (at 72 to 75 degrees F.) for 24 hours, until it is thick, sour and glossy. Then replace the warm water with cold water and cool the cream to 65 degrees F. for churning. The thoro souring allows the lactic acid bacteria to produce lactic acid which in turn makes the casein brittle, making it easier to churn.

(2) After the cows have been milked for several months fat globules become harder and more difficult to churn. The milk becomes thicker; there is an increase in solids not fat, and a change in the protein constituents that causes them to become viscous. This leads to foaming instead of churning. It will help to feed the cow linseed meal, soybeans, gluten feed, grass or roots, as such feeds produce a softer fat. Reduce the cottonseed meal, as it causes a hard fat.

(3) Dry feed causes hard fat and thick, viscous milk. Green grass causes softer fat and more easily churned milk or cream.

Remedy: Churn at a warmer temperature, say 62 to 65 degrees F. (use thermometer); churn a thicker, richer cream; ripen the cream longer; change the feed of cow.