

RECENT INVESTIGATIONS

Skim Milk for Milch Cows.

From Germany comes the report of a practical experiment showing that skim-milk may be fed to milch cows with advantage. One pound of concentrated feed (wheat and rye bran) was found to about equal ten pounds of skim-milk. The milk must be fed gradually, thinning it with water, or feeding it mixed with concentrated feeds.

Effect of Changes in Stable Routine.

North Carolina Station Bulletin 116 reports the effect on cows accustomed to being fed before milking of not feeding them at that time. One cow that commonly gave $7\frac{3}{8}$ pounds of milk per day gave only one pound at a milking; the next milking was larger, but did not make up for the loss. Another cow, whose milk tested from 3.6 to 4.4 per cent., gave milk containing only 1.6 per cent. of fat when grain was not given before milking. This illustrates the great need of regularity in all things pertaining to the management of cows, and no doubt lack of attention to small things is costing many a man the greater part of the profit from his dairy.

Angus vs. Shorthorn.

Bulletin 28 of the Iowa Experiment Station reports two feeding trials with ten animals of each breed. No marked difference in the gains made were observed. At the close of the experiment the animals were all sold and slaughtered. Each lot brought \$5.65 per 100 lbs. The meat was cut up and priced by an expert, but no marked difference between the two breeds was observed. The author concludes that, from the standpoint of feeding for beef, the two breeds differ very little. A comparison of pasturage with and without grain was made with two lots composed of five animals of each breed. The addition of grain was not found profitable.

Formalin as a Milk Preservative.

S. Rideal reports favorably on the use of formalin as a milk preservative. He found that one part of formalin to 10,000 of milk kept the milk fresh for seven days. The formalin used for pre-

serving milk in the trade he found to contain five-ounces of pure formalin to the gallon. Of this, one-half pint was used to seventeen to eighteen gallons of milk. This quantity does not impart any taste or smell to the milk, even after boiling. He considers it much to be preferred to borax or boric acid, seeing that the quantity used is so much smaller. He states that he has never known any injurious effects from its use, and that he has frequently drunk the one per cent. solution.

Wheat Smut.

A very simple method of treating smutty wheat is described in Bulletin 46 of the Minnesota Experiment Station. The method is as follows: Dissolve one pound of copper sulphate in two and one-half gallons of water. Spread out ten bushels of wheat on a tight floor and sprinkle the solution over it. With a shovel, turn over the grain several times during sprinkling until every kernel is thoroughly wetted. The solution needs to penetrate even the hairs at the blossom end of each kernel, and also the crease of the grain. The sprinkling should be done only a few hours before sowing, as the copper sulphate is liable to injure the grain. It is almost as effective as the dipping methods, and more easily performed.

Zinc in Evaporated Apples.

In many European markets the consumption of American evaporated apples is either restricted or prohibited on account of the supposed contamination of the product with zinc. The United States Department of Agriculture has investigated the matter, and Bulletin 48 reports the results of investigation.

In samples of American evaporated apples, weighable quantities of zinc have been found in nearly every instance in which the drying was accomplished on galvanized iron wire trays. It is recommended that pure aluminium or well tinned iron wire should be substituted for the galvanized iron, and that bronze cutting instruments should be excluded and steel substituted.

Although the amount of zinc in the apples was very small, it is believed that it would pay factories to make the suggested changes in order to place the goods above suspicion.