

## In the Dairy

### Dairy Instruction Work

The dairy instruction work carried on by the Department of Agriculture and the Dairywomen's Association during the past season has been productive of marked results. The quality of cheese has improved and the percentage of rejections from factories receiving instruction has been far smaller than from those not receiving instruction. The proportion of inferior samples of milk among those tested by instructors was about 40% less than last year. \$125,000 was spent in factory improvement as against \$85,000 spent in 1903.

### Siberian Butter Making Stopped

One of Russia's industries that has been seriously hampered by the war has been the Siberian butter trade. During the past few years the making of butter in Siberia has assumed large proportions and a growing trade had been worked up with England. As soon as hostilities broke out between Russia and Japan, the war with one blow brought this trade to a standstill. The butter trains were withdrawn and the dairies had to discontinue their work, being unable to find any outlet for their produce. Many large herds of dairy cows have been sold to the Army Provisioning Department. The sale of cream separators, a very important one in Siberia, has ceased entirely. Altogether, the war has wrought sad havoc amongst the Siberian dairies and butter merchants.

### Swedish Butter—How it is Made and Put Upon the Market

Some few months ago I was able to tell readers of THE FARMING WORLD something about the manufacture of butter in Holland and its subsequent marketing in England, and now propose to supplement it with a report of buttermaking in Sweden. The particulars are taken from a report issued by the government of that country, so they may be fearlessly taken as reliable. It is only of recent years that Sweden has developed into a butter exporting country, but so much attention has been given to this branch of the farming industry that now over 400,000 cwt. is exported annually. This is sent almost entirely to England and Denmark, but in all probability the bulk of that reaching the latter country is re-exported and eventually comes to the British Isles.

The number of cattle kept in Sweden has greatly increased during the past 30 years, there being now over 600,000 more than at the period when foreign stock has been largely imported and the Ayrshire is most frequent over the central and southern portion of the country, while the Shorthorn is also a favorite, large herds being found on many of the bigger estates. The red and white native cattle, which closely resemble the Ayrshire-Shorthorn cross have been greatly improved of recent years by judicious breeding and selection.

Until some thirty years ago butter making was confined to the dairies on the larger estates, but about that time dairy companies began to come into existence, which purchased milk and cream for conversion into butter and in many cases maintained branches where the milk only was collected, the cream being forwarded to a central dairy. Early in the nineties co-operative dairies came into existence, and these have enabled those farmers who produce only small quantities of milk to turn their produce to the best advantage, and have made Sweden a butter exporting country. In about 80 per cent. of these factories butter alone

is made, while about 10 per cent. turn out cheese exclusively. It may be said however that the production of cheese is barely sufficient for home requirements. Dairies range of all sizes, and as a rule they are substantially built with floors of asphalt, cement, limestone or slate. Modern machinery has been installed, which is usually driven by steam, although under certain conditions water power is made use of.

After the cream has been separated and ripened it is churned in the Holstein type of churn, although in some of the larger dairies newer methods are in force, in order to enable larger quantities to be turned out. Butter nowadays is not touched by hand, and after the first working it is salted and again passed through the mechanical worker. In the manufacture of butter the cream is specially soured by means of pure-cultures; when salted and worked the butter is packed in kegs of about 1 cwt. each. It may be mentioned however, that just lately the plan of making it up into rolls and then packing into 56 lb. boxes is growing in favor.

The government gives considerable assistance to the industry, for not only do they provide instruction in the manufacture of butter, but also aid financially a very complete system of butter testing which is regularly carried out; we state also maintain an agent in England to look after the Swedish exporters' interests. A. W. S.

### Dairying in the East

Miss Laura Rose returned Saturday from Cape Breton, where she has been during the last five months, conducting a traveling dairy school. She addressed in all two hundred and eleven meetings, with an aggregate attendance of over nine thousand people. Three years ago Miss Rose covered much the same ground. She found this season a marked improvement in dairy conditions, which the people were kind enough to attribute to her former efforts. More thought is given to the cow and her ability to make milk. In 1901 380 samples of milk were brought to be tested; this year 966, a striking evidence of increased interest. The people of the east are beginning to look upon Miss Rose as one of themselves, and a hearty welcome from them always awaits her.—Guelph Mercury, Dec. 5.

### Value of Pasteurization

Mr. M. Tupin, a French correspondent, writing to the N. Y. Produce Review upon the subject of pasteurization, summarizes the advantages to be derived from it as follows:

"Pasteurization, properly conducted, gives excellent results, for by this means the quality of the butter is improved by giving it the required aroma."

"French export butter is the product of pasteurized cream which is ripened by the addition of a good acid ferment."

"It is the ferment which determines the quality and quantity of the butter, and it is very probable that the differences of opinion arise from this cause."

"The preparation of the ferment demands the greatest care in order that its influence is not checked, a lowering of temperature would affect it materially. The conclusions, then, are:

"1.—That pasteurization of the cream kills most of the microbes.

"2.—It permits ripening, by the aid of well prepared ferments, according to the tastes of the customer.

"3.—It does not diminish the quantity of butter, even if it does not increase it.

"4.—It has a favorable influence upon the keeping quality of the butter."



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