

The Makers' Corner

Butter and Cheese Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making, and to suggest subjects for discussion.

Hints on Butter-Making

By L. A. Zureit, at E.O.C.A. Convention

THE color and texture of butter are influenced largely by the richness of the cream, temperatures of cream and wash water, and length of time in working.

Richness of Cream.

If cream has too high a percentage of fat and the churn is filled much over half full, we are liable to experience considerable difficulty by the cream swelling and hanging up in the churn. When we do get butter it is likely to be in large lumps, and difficult to thoroughly wash. The chances are that the butter will be rather soft to admit of proper working, and we will either have a coarse porous texture showing too much free moisture with a more or less mottled color, or if we work sufficiently to secure an even color we will have a soft, and possibly a greasy texture with too high a moisture content.

If the cream has too low a fat content we will also have difficulties in churning. The fat globules being so far apart will not unite so readily, and if we are churning at the usual temperature the small particles of butter are subject to so much friction by rubbing against each other as to seriously injure the grain. When the churning is finally completed the granules will be small and rounded, and the butter is likely to show a more or less speckled appearance with a sticky or greasy texture.

Experience has taught us that cream having from 32 to 35 per cent. fat with the churn not too full gives the best average results, with a possible range of 30 to 37 per cent. As the average percentage of fat in the cream delivered to our creameries is only about 28 per cent., a considerable improvement could be brought about by encouraging the patrons to produce a richer cream.

Temperatures.

The lack of the employment of proper temperatures in churning, washing and working butter is perhaps more responsible for defective color and grain than is the richness of the cream. The proper churning temperature depends on the length of time the cream has been cooled to this temperature and before churning, the richness of the cream, the amount placed in the churn and the nature or composition of the fat. Fat is influenced by changes in temperature, but very slowly, so if the cream is cooled just before being churned a lower temperature must be employed than if the cooling was done several hours previously. The advice is true if it is found necessary to raise the temperature before churning as a correspondingly higher temperature must be used.

As it is the common practice to churn on the day following the receipt of the cream, it is better to bring the cream to the proper churning temperature the evening previous, making due allowance for changes which may occur over night. Other wise, much valuable time will be lost in the morning, or the cream will be churned at whatever temperature it may be at, resulting in more or less rancid work with unsatisfactory results.

The object of washing butter is to remove the buttermilk and reduce the temperature so that the butter has that firmness of body to admit of sufficient working to thoroughly incorporate the salt and moisture and produce a smooth waxen body and grain with a uniform color. If sufficient water is used and the cream has been churned at the proper temperature, the temper-

ature of the wash water should be four or five degrees lower than the cream. Mistakes are often made, especially when the churning temperature has been too high and the butter is soft, by using water of too low a temperature. This only chills the outside of the butter, the centre not being affected, with the result that the butter will not be worked evenly and will have a mottled appearance when finished. In a case of this kind it is better to wash the butter with two waters with the first water only, four or five degrees colder than the cream and the second at the proper temperature to bring about the desired result.

In order to properly work butter it must have a sufficient firmness without being hard, to admit the application of a moderate amount of pressure to force it through the workers. If the butter is too hard, too much friction is caused with a corresponding loss in texture and moisture, if too soft the butter in reality is not worked at all, only mixed, resulting in a soft porous loose grain with too much free moisture.

Suggestions Wanted

HOW to continue in the business of manufacturing butter or cheese with a milk condenser slowly but surely creeping up to the back door is a problem a considerable number of creamery and cheese factory operators have been called upon to solve, and quite a number of them have apparently failed, for occasionally news comes to us of a creamery or cheese factory that has been forced

FOOD BOARD FOR CANADA.

AN important announcement coming from the Federal Department of Agriculture is to the effect that a Food Board has been formed for the more efficient direction of the forces engaged in Canada's supreme task—food production.

Mr. H. B. Thomson, the present Food Controller, as Chairman of the Board and Director of Conservation; Hon. Charles A. Dunning, of the Saskatchewan Government, as Director of production, and Mr. J. D. McGregor of Brandon, as Director of Agricultural Labor, are all men of proved ability and influence, men whose training and experience warrant public expectation of real results from their service. Working under the Ministerial guidance of Hon. T. A. Crean, the Minister of Agriculture, with whom agricultural development has been for Canada Food Board should provide inspiring leadership and effective organization for the coming national campaign of food production and food conservation.

to close because of lack of patronage after the opening of a nearby condenser. It is a problem that has confronted cheesemakers especially, for the greater part of the condensaries have been located in territories where the farmers have been accustomed to hauling milk, where the condenser people would not have to educate the farmers to the habit of bringing in milk instead of cream.

We all know why the condenser has been able to force the cheese factory out of business—simply because the condenser utilizes every part of the milk except the water, which is of no food value, and the cheese factory has the whey left as a waste or by-product, and when we consider that practically one-half of the total solids of milk remaining in the whey after the curd has been extracted, we need not

MAPLE LAWN STOCK FARM

at present offers four yearling sons of
KING SEGIS ALCATRA SPOFFORD

Owned by Leavens and Purteile and W. L. Shaw.

Their dams are daughters of

COUNT SEGIS WALKER PIETERTJE

who has 6 daughters with records over 100 lbs. milk in 1 day, and who average over 30 lbs. butter in 7 days. Two with world records.

Write for Pedigree or Come and See.

WM. H. GOUGH & SON

Bloomfield, Ont.

LLENROC STOCK FARM

ON THE BOULEVARD OF THE BEAUTIFUL NIAGARA RIVER

We offer a fine young bull, by our Senior Sire and a 29-lb. cow. ALSO A YOUNG BULL, by SIR VEEMAN HENGVERLO, and from a 15-lb. 2-year-old, who is a grand-daughter of DIONA KONIGEN PIETERTJE 37 lbs.

Write for prices and pedigrees. Address

W. C. HOUCK - R.R. 1, Chippawa, Ont.

HOLSTEINS

We have the only two sons in Canada, of the 46-lb. bull Ormsby Jane King—one mature son of the world's most famous cow. One of them for sale, also a 29-lb. self, whose dam and two great-grand-dams average 28.4 lbs. butter in 7 days. Also 11 bull calves of lesser note, and families of

R. M. HOLTBV,

R. R. No. 4,

PORT PERRY, ONT.

BACKED BY RECORDS

Our present offering is a young bull, born 5th April, 1917, nicely marked and straight as a line, top and bottom. Dam—FRANKY KOHNITZKE; Granddam—FRANKY 2ND, twice grand champion in the Ottawa Dairy test. Sire's Dam—ROYALTON DEKOL PERN, 34.60 lbs. butter in 7 days; 14 lbs. milk in 1 day.

D. C. FLATT & SON

R. R. No. 2

HAMILTON, ONT.

SPRUCE GROVE HOLSTEINS

4 BULLS FOR SALE, 6, 7, 12 and 13 months, respectively, by our best sire MAY ECHO CHAMPION, full brother to MAY ECHO SYLVIA, of 33.31 son of KING SEGIS.

FARM NEAR STOP 35, YONGE STREET RADIAL.
GEORGE COOPER WILLOWDALE, ONTARIO

LAKEVIEW STOCK FARM

offers for sale several daughters, granddaughters and grandsons from the following cows—LAKEVIEW HATFIELD, 27.54 lbs. butter 7 days, and the present Canadian Champion 30-day butter cow, 8 months after calving; LAKEVIEW DUTCHLAND ARTIS, 34.56 lb. Canadian Champion Jan. 2-yr.-old; PET CANARY COUNTRYMEN 2ND, 27.75 lb. after calving; QUEEN INKA DEKOL, 27.53 lbs. butter 1 lb. 8 mos. after calving; QUEEN INKA DEKOL, 27.53 lbs. butter 1 lb. 8 mos. after calving. And her granddaughter, LAKEVIEW 7-yr. butter cow, 8 mos. after calving, 15.31 lb. who is now on test as a 2-yr.-old, and running over 80 lbs. milk a day. This is the best time offered for sale.

DON'T WAIT TO WRITE, but take the first train for Bronto, Ont.

Major E. F. Osler, Prop.

BRONTO, Ont.

T. A. Dawson, Mgr.

"AVONDALE FARM" BULLS

Young bulls sired by WOODCREST SIR CLYDE, whose dam has 23.08 lbs. butter, and over 24,000 lbs. milk in a year. He is by the same sire as our bull, Prince Hengverlo Pietje, with seven daughters having over 30 lbs.

1. One 10-month-old from a 23-lb. cow, the dam of our well-known Lady Waldorf Pietje.

2. From a 24½-lb. two-year-old, daughter of a twice 23-lb. cow.

3. From a 19.84-lb. junior two-year-old.

These are going to be sold at a bargain! We have several young sons by our sire son of MAY ECHO SYLVIA, one of those 10 months old.

We are offering by private sale a few good yearlings, and two-year-old females by Woodcrest Sir Clyde.

H. LYNN,

Avondale Farm,

Brockville, Ont.