The spreading is done with a shovel, in a dry, still time, and as uniformly as possible. Never spread lime on the land when it is wet. Then, it is worked into the soil as quickly as possible, or else it becomes carbonated in the air, and much more rapidly than in the soil. The lime is worked in by harrowing, by two or three cross-grubbing, or better, by a furrow 4 or 5 inches deep; for, as we saw, it is important to get the lime out of the reach of the air.

When the land to be limed is in grass, or is bearing a crop, it is obligatory to make up the lime into a long heap in the corner of the field or close by it. It should be covered as before to slake, until the teams are ready to draw it out.

Lime applied to green manure, (1) is very effective, for it neutralises the acidity and facilitates its decomposition, but lime and dung must never be applied at the same time, as the dung would lose its nitrogen in the form of ammonia and weaken the activity of the lime in the land.

Neither are lime and sulphate of ammonia to be used simultaneously, nor superphosphate of lime and lime. The two applications should be separated by an interval sufficiently long, for instance: lime the stubble of a grain-crop in September, and only cart on the dung just before winter, of better still, not till the spring.

From the French.

PROVINCIAL COMPETITION OF DAIRY-PRODUCTS.

General faults—Advantages of analysis—Opinions of the Judges on these competitions.

The competition of Dairy-Products, under the direction of the Department of Agriculture, announced in one of our preceding issues, took place on Thursday, June 25th, for butter, at Quebec, and, for cheese, on June 27th, at the Dairy-School, at St. Hyacinthe.

Forty-four boxes or tubs of butter, and forty-five cheeses were examined with the greatest care, by MM. A. A. Ayer and J. A. Vaillancourt for the butter, and MM. McKergow, McLagan, and J. A. Vaillancourt, for the cheese. These three judges were selected from among the principal Montreal exporters, and perfectly well informed as to the sort of cheese preferred by consumers, they found that some of the boxes or tubs of butter were good, and some of the cheeses were almost perfect. As regards both butter and cheese, the external appearance and the packing were not nearly what is required.

The analysis of these butters and cheeses will be made by the Director of the Official Laboratory, M. l'abbé Choquette, and, with the remarks of the judges and of M. Leclair, instructor in butter-making, and M. Bourbeau, instructor in cheese-making, at the Dairy-School at St. Hyacinthe, will serve to enlighten each maker as to the defects of his butter or cheese, and the remedies to be applied for their correction. Besides, these analysis will make known the cause of certain bad flavours that deteriorate some of the butter and cheese,—which, nevertheless were made according to rule. The judges, men of great experience, hold that these competitions are infinitely preferable to Exhibitions of Dairy-products, and that they are destined to be of very great service to our dairy-trade.

The following is a list of the competitors who won prizes and the number of marks assigned to each.

CHEESE

1st CLASS

SILVER-MEDALS

1.—J. A. Janelle, of Saint-Cyrille of Wendover, Drummond.... .... 98 marks
2.—S. J. Rose, of Huntingdon, Hillside Factory... 97½ marks

BRONZE MEDALS

3.—Arthur Critenden, West Brome, "Brome"... . . .. 97 marks
4.—H. J. Wales, Sutton Junction, "Brome" .... 97 marks
5.—J. Ferdinand Huneault, Montebello, "Ottawa".... 96 marks

2nd CLASS

MONEY PRIZES

6.—Arthur Marsan. Saint-Valérien, "Shefford" 95½ marks $20.00
7.—Louis J. Primeau, Sainte-Martine, "Chateauguay" 95½ marks $20.00.
8.—Joseph Archambault, Marieville, "Rouville" 95 marks, $16.00.
9.—Joseph Lemonde, Saint-Liboire, "Bagot." 91 marks $12.00.
10.—Osias Archambault, Sainte-Brigitte, d'Iberville, 94 marks $12.00.
11.—J. O. Hébert, Sacré-Coeur de Marie, "Megantic," 94 marks $11.00.
12.—Evariste Saint-Laurent, Lyster Sta. "Megantic" 94 marks $12.00.
13.—A. Gérin, Coaticooke, "Stanstead" 93 marks.
14.—Adolphe Parenteau, Asbestos Mines, Danville, "Richmond." 93 marks.
15.—Calixte Dion, Stanfold, "Arthabaska" 93 marks.
16.—Joseph Crate, Kiverfield, Howick, "Chateauguay" 93 marks.
17.—Chas H. Harvey, Venice, "Missisquoi" 92 marks.
18.—Achille Albert Jacques, Carthby Station, "Wolfe" 92 marks.
19.—A. C. Carter, Cowansville, "Missisquoi" 91 marks.
20.—Edeas Larocque, Roxton-Falls, "Shefford" 91 marks.
21.—Zéphirin Daubigny. "Champlain" 91 marks.
22.—David Cloutier, Sainte-Marguerite de Dorchester, 91 marks.

BUTTER

1st CLASS

BRONZE-MEDALS

1.—Léonard Dénault, Saint-Norbert, "Arthabaska. 96 marks.
2.—J. A. Courchesne, Lanoieville, "Richelieu, 96 marks.
3.—Francis Roger, Saint-Agapit, "Lotbinière" 96 marks.
4.—Télesphore Rhéaume, Château-Richer, "Montmorency" 96 marks.
5.—Préfontaine et Frères, L'Isle Verte, "Temiscouata" 96 marks.
6.—Edmond Brosseau, Saint-Laurent des Monts, ""Terrebonne" 96 marks.

2nd CLASS

MONEY-PRIZES

7.—J. Arthur Talbot, Saint-Aubert, "L'Islet" 94 marks $20.00.
8.—David H. L. Francoeur, Tr.-Pistoles, "Temiscouata" 92 marks $16.00.
9.—Amédée Gaudreault, Tr.-Saumons, "L'Islet" 92 marks $16.00.
10.—Onésime Mercier, Saint-Charles, "Bellechasse" 91 marks $12.00.

(1) i. e. a crop to be ploughed in green.—Ed.

THE MAKING OF CHEDDAR CHEESE.

Pastures — Milk — Making cheese—Cutting curd—Test by hot iron—Pressing.

Before entering upon the subject of this paper I deem it necessary to say a few words in regard to cows, pastures, milking and care of milk to fit it properly for the manufacture of finest cheese.

COWS.—Every cow must be in perfect health if her milk is to be used for cheese making.

PASTURES.—Pastures should be composed of mixed grasses with a good proportion of clover (white) and should be free from all carrion, pools of stagnant water and all bad smells, and places should be provided where cows can drink while standing on good firm ground and not in several inches of mud. This can be done by placing a trough a few feet below the source of the water and placing a spout or pipe from source of water to trough; this will give the cows good fresh, running, clean water to drink. Cows should be given all the salt they will consume every day, this will cause them to give better and more milk, and when being taken to or from pasture should be driven very quietly and never worried by a dog.

MILKING.—Our cows are now ready to give us perfect milk and in order to not injure its quality the cows should be milked at regular hours by the same person with clean dry hands, being sure to have the cow udders perfectly clean before commencing.

CARE OF MILK.—Strain as soon as milked through a clean cloth strainer, into a clean bright aerator placed over a clean, bright can and allow it to be exposed to the air while finding its way to the can very slowly. The can should be placed in fresh pure air while the straining and airing is being done and should be kept in such till its removal to the factory, the night's and morning's milk should not be mixed but in case of necessity the mornings milk should be cooled after straining and airing to the temperature of the night's milk before mixing and the night's milk should be stirred a few times after airing at intervals so as to allow of it cooling evenly and keep the cream from rising, and by all means do not cover the cans with the can covers, but allow at least several inches of space above the cans opening so as to allow all vapor and odours to escape.

It is not necessary to cool milk by means of water, that is placing cans in cold water during the night. Now our milk is ready for delivering at factory, place bright clean covers upon cans, put cans into clean wagons and deliver to the factory not later than eight o'clock in the morning.

FACTORY AND MACHINERY.—As we are about to receive perfect milk we must not injure its quality: and to avoid doing this I would make a tour of inspection of the utensils which I am to use commencing with the weighing can, conductor, strainer, vat, knives, rake, agitator, covers, mill and hoops, and so see that everything is perfectly clean and bright, before receiving any milk. We should have a factory well ventilated, well drained and so constructed that we can control the temperature.

PROCESS OF MANUFACTURE.—In order to produce finest cheese from the milk cared for as above described, I would proceed in the following manner.

I would heat the milk by means of steam inserted round the vat to 86o, and in order to determine its ripeness I would make a test with rennet called the rennet test, this is done by taking 8 oz. milk from the vat and I draw off rennets and mix them together by stirring and noting the number of seconds it takes to coagulate; this will denote its advancement or ripeness; this will vary in different places and according to the strength of your rennet but in all cases it should be just at such a number of seconds that the curd would remain in the whey one hour after the heating has been finished before a sufficient amount of acid has developed for the removal of the whey.

If at first test I found milk was not advanced enough, I would prefer using a starter, that is milk slightly sour, rather than let it ripen by standing.

As soon as I found milk ripe enough to commence working, I would use enough rennet to thicken ready for cutting in 15 to 45 minutes according to the season of the year; 15 in April increasing gradually to 45, in the fall less rennet will be required as the season advances. The rennet should be diluted with cold water before mixing with the milk and there should be about 1 gal. of this diluted rennet mixture used for one vat of milk, the mixing of the rennet must be done very thoroughly, and stirring should be kept up for about 5 minutes, after which the vat should be covered and be left perfectly quiet till ready to cut.

The way I determine when curd is ready to cut is to insert the front finger in the curd and press forward and upward, and if curd breaks clean over the finger it is ready.

Commence the cutting with the horizontal knife; first, lengthwise of the vat, being very careful when putting knife in and taking it out of the curd do so in an inclined position causing the blades of the knife to cut the curd and not break it, turn the knife at each end of the vat instead of lifting it out of the curd; let curd stand after first cutting till the whey begins to show on top of it, which will be in about 10 minutes; take the perpendicular knife now and cut once crosswise and once lengthwise. Stirring should be commenced with the agitator now very carefully and two or three turns of the vat made, when the perpendicular knife should be taken and cutting continued alternately crosswise and lengthwise, once, twice or three times according to the mesh of the knives, the larger the mesh the more times you will have to cut.

Stirring should be commenced at once, very gradually, and continued for about 10 minutes when all curd which adheres to the sides of the vat should be removed with the hands and heating commenced; very slowly at first gradually increasing to the finish, which should take about 30 minutes from commencement, stirring must be done with the agitator during the whole of the heating and should be so done as to let no portion of the curd rest quiet on the bottom of the vat.

The exact degree to heat to varies from 98o to 100o, this is in different places and at different seasons of the year if cooking to 98o does not give you a curd firm enough, then cook to 100o if this does not give it firm enough I would prefer cutting a little finer rather than cooking higher as cooking to over 100o will cause a less of butter fat.

As soon as the heating is finished take a hand hey-rake and stir the curd all