seeds he is buying, and the name or names of such weed seeds.

It is a common practice here on Prince Edward Island to take two crops of oats in succession from the same field, and either seed out to hay on the oat stubble, or manure and take a crop of roots—potatoes, turnips and mangels—and possibly a little corn. This is generally followed by wheat and seeded out to hay. Hay is cut one or two years; pasture about the same, and then begin over again. But some have a different rotation from this already given, as follows: Sod, oats, roots (manured), wheat, clover, and, instead of pasturing the second crop of clover, plow it under for manure, adding humus to the soil; then oats or some grain crop again. But I would not, under any circumstances, take more than two crops of oats in succession from the same field, and unless the field is intended for roots the following year. I would rather seed oats on sod, unless I could top-dress with manure for the second crop of oats. This has been our aim for a number of years, either to top-dress the second crop of oats, or manure for roots, or both. The question might here be asked, "On which do you prefer to grow your root crop, on sod or stubble?" I prefer a stubble field every time. While I admit potatoes will grow as well, and perhaps better, in sod, turnips will not, and the extra labor in cultivating and keeping the sod field clean, especially if there is couch grass or weeds in it, will not pay for the extra potatoes grown. And I am convinced, by repeated experience, that turnips do much better on stubble land; never grow turnips the second year on the same land.

Prince Edward Island. C. C. CRAIG.

Keep Sap Cool; Boil Fast; Sell Quickly.

Editor "The Farmer's Advocate":

We have a fine maple bush of twenty-four acres, and tap about a thousand trees, if we can get help enough. We use a modern evaporator plant and spouts, and a fine sugar-house. Our storage tank holds sixteen hundred gallons, and the gathering tank five barrels. Last year we had all full in a day with sap from 700 trees. We make 20 gallons a day if we have sap enough to keep us going, and sell all we make in the Town of Galt, at $1.50 a gallon, and we can't make enough.

We gather the sap every day, and sometimes twice a day, if necessary. Our driveway is a littler higher than the storage tank, from which it runs down to the evaporator. It is on the north side of sugar-house, so as to keep the sap as cool as possible. It is very important to boil as fast as can be done to insure syrup of a good flavor and bright color. We provide a year's supply of wood ahead in a big woodshed, furnished with a track and car, so as to carry the wood right where we want it.

We always start as soon as weather is favorable, with two men and a team, and all other help we can get for a time, until all is in working order, then one boils constantly, two gather with team, and it keeps me busy to sell, so we never have more syrup at home than from a day's boiling; the people get the syrup fresh and pure. We use a felt strainer, so no particle of sediment passes into syrup. We also use a tester, to insure syrup of even density. N. HAID.

Waterloo Co., Ont.

Sound Advice on Soil and Seed.

Preliminary to a discussion on seeds, addressing an audience on the M. C. R. Better-farming Special, Anson Groh, of Waterloo County, Ont., emphasized the importance of good soil conditions, laying stress upon drainage, fertility and tillage. The plant wants warmth, air and moisture, and upon the start it gets the yield largely depends. If you take a little animal, a lamb, a calf, or a colt, and do not give it a chance to establish itself, it won't come into its own. That a soil may be warm, it must be well drained. It takes ten times as much heat to warm a pound of water as a pound of earth. Grow deep rooted crops like alfalfa, which will help to till, drain and aerate the soil. Farm deeply by such means. A seed is a living thing, subject to laws like other living things. There is an inherent power in seeds, as in animals, and we want seeds that inherit the best tendencies. Use plenty of wind and screens, so as to get the best seeds possible. Never sow a seed that is below the ideal. Do not chase new varieties. If you pick a breed of stock, stay with it, and do the same with seeds. Make a choice of varieties; find out what you want to grow, and grow it, leaving the production of new varieties principally to the professors and experimenters who have time to spend on such work. Those who fuss with every new variety that comes along will keep tangled up in their seed problems constantly.

Glendinning on Alfalfa.

Speaking about alfalfa on the Better-farming Special, at St. Thomas, March 4th, Henry Glendinning declared it the greatest of our forage crops. He believes it can be grown on practically all soils, except the swampy or peaty ones. If the land is not well drained, it will pay to tile it to the depth of three feet. Buy the best seed it is possible to purchase, and by preference get seed raised near home, as this will be better acclimatized than seed grown at a distance; besides, there will be less danger of infesting one's farm with seeds of new weeds. His own practice is to go through the fields every year about the first of July looking for new weeds. In one field sown with seed from Germany, he had discovered two kinds of mustard that had never been seen in Canada before. In another kind he found Russian thistle, and in still another gum weed, these latter kinds being from the Western States. Be careful about introducing new weeds.

Mr. Glendinning sows his alfalfa seed at the rate of 15 pounds per acre, with a nurse crop of three pecks of barley, on a field that has had a coating of manure applied for a well-cultivated hoed crop, the land being then cultivated the next spring without breaking, and worked to a fine seed-bed. Treat the seed with nitro-culture if neither alfalfa nor sweet clover has grown on the farm before, and sow the treated seed in front of the drill tubes to insure that it will be covered promptly, without exposure to the sunlight. Without nitrogen, the plants grow weak, the leaves turn yellow and soon drop off. Plants grown from inoculated seed, or in soil that has been naturally inoculated, grow green and vigorous. With a good catch on rich, well-prepared land, the alfalfa will often be as high as the barley. When reaping the grain, leave a long stubble to hold the snow, and do not pasture the new-seeded alfalfa after harvest. The thick, bushy growth will help to hold the snow, and under this brush the plants in the following spring will start perhaps a week earlier than where the top has been grazed off close in the fall. He believes there have been more losses and failures in alfalfa-growing in this country from pasturing than from all other causes. The more you pasture, the thinner the stand becomes, and the more liable you are to lose your stand in some exceptionally severe season. As to rate of seeding, the speaker remarked that it used to be recommended to sow 25 pounds per acre, but in those days the seed was often old and lacked vitality. Now, owing to the brisk demand, the seed is practically all fresh, and, if obtained from a good source, and sown as described above, practically every seed that sprouts will come up and produce a plant. Mr. Glendinning showed a glass-front case containing three kinds of hay: Red clover, made by the green-curing method (hauled to the barn the evening of the day it was cut), and the other two kinds showing first and third cut of alfalfa, made as follows: The green alfalfa was tedded the day it was cut, then raked into windrows, tedded twice the next day in the windrows, and in the morning of the third day tedded again, and loaded with hay loader. From the time it is cut, until it is fed, no fork is put into it, except by the men on the load. The samples of hay were very nice, and one could believe Mr. Glendinning's statement that last year his cows had eaten it readily in the summer, instead of green crops, and had done well on it. His winter ration consists of corn silage, roots, and alfalfa hay. Anyone, he claims, who can grow alfalfa and corn, and feed these to good cows, is favored with special opportunities to make money.

Salt and Land Plaster for Barley.

Dr. Wm. Saunders, Director of the Dominion Experimental Farms, reports that common salt, which has long had with many a reputation for its value as a fertilizer for barley, while others disbelieved in its efficacy, has been shown to be a valuable agent for producing an increased crop of that grain, while it is of much less use when applied to crops of spring wheat or oats. Land plaster or gypsum has also proved to be of some value as a fertilizer for barley, while of very little service for wheat or oats.

Fresh vs. Rotted Manure.

Careful trials, conducted over an extended series of years, and finally restated in the report of 1910 for the Dominion Experimental Farm, at Ottawa, show that barnyard manure can be most economically used in the fresh, unrotted condition; that fresh manure is equal, ton for ton, in crop-producing power, to rotted manure, which other experiments have shown loses during rotting about 60 per cent. of its weight.

Among all the forms of employment which engage man's attention, there are few which require more ability to conduct successfully than farming.—Sir Wm. Saunders.

THE DAIRY.

From Cow to Consumer.

An enterprise has been started in the vicinity of Moose Jaw, Sask., which should have special interest for dairy farmers in the Eastern Provinces, and whose career will doubtless be closely watched by them. This is an up-to-date dairy business, conducted by the Moose Jaw Dairy Company, on a 480-acre farm three miles out of the city. At present there are 90 cows in the herd, but it is intended that the number shall be increased to 120.

In the management of this dairy herd, there are several features of interest, but the one whose working out will be followed with the greatest intentness by Eastern milk producers is that the soiling system is to be practiced for summer feeding. In the large barn, which will accommodate 120 cows, the animals will stay winter and summer, except that they will be let out occasionally in winter, and more frequently in summer, for exercise. A plot, not a field, is provided for this purpose.

The company was organized in the spring of 1910, but the business of putting up buildings, securing cows, and otherwise preparing for carrying on a city milk trade, occupied the summer season, so that it is only a few months since operations actually began. For the present winter, the feed consists principally of oat sheaves, cut green, supplemented by a mixture of bran, middlings and "red dog" (low-grade flour), mixed in the proportion of three parts of bran and middlings to one of flour. For summer feeding, such crops as oats and peas, corn, alfalfa, etc., will be grown. These will be cut green and hauled into the barn. It is the intention to erect a silo next summer, and corn will be grown to fill it.

Many Eastern dairymen practice a partial soiling system profitably at present, and many others are in a waiting attitude towards the whole question, ready, once they are convinced that the theory will really work out in practice, to adopt it. If this Saskatchewan venture turns out to be successful, there seems every reason to believe that farther East, where labor is cheaper and land less plentiful, soiling ought to be even more likely to be profitable.

Mr. Boyd, the prime mover in this Western milk-supply company, has hit upon a ventilation system adapted to the particular needs of the situation. Fresh air enters from the hay chutes in the ceiling above the feeding alleys, and the vitiated air is drawn out through flues at the walls, starting at the ceiling, and extending some distance above the eaves. The mouths of these outlets are turned in towards the roof, so that the wind may blow from any direction without checking the upward current.

The present herd was purchased in Wisconsin and Ontario, and consists of Jerseys and Holsteins in almost equal numbers. The herd bull is Holstein, and comes from a noted milking family. Selecting heifer calves from the best milkers, and weighing each cow's milk daily, are the means employed to bring the herd up to a higher average of milk production.

"Cleanliness" is to be the watchword all through the process of producing milk on the farm. Each man has fifteen cows to look after, and each cow is well brushed and curried every day. The milk is drawn into sanitary milk pails, and as quickly as possible taken to the milk house. Here it is cooled at once to a temperature of from 40 to 45 degrees, put into a bottle-filler that fills and caps 12 bottles at a time, and then into a cool room, ready for delivery.

That the public in the average Western town and city are willing to pay for quality in milk, is evidenced by the fact that the milk sells for ten cents a quart, and that the demand has been in excess of supply ever since the business opened.

I saw a query about creamy buttermilk by "A. E. H.," and if you will allow my experience, I thought perhaps it might help him. First when we got a separator I had that trouble, and found out that, as I have seen you advise, I must not put cream in cream can for a day before churning, or if not very much, and cream is fit to churn, it could be churned in the latter part of the afternoon if the evening cream had been added the evening before. I make a good deal of butter, and have not had any trouble for years.

Simcoe Co., Ont. (MRS.) J. W. MURRAY.

I saw in your issue of February 23rd a subscriber had trouble with butter not coming. We had trouble with ours much the same, and we asked Miss Rose, of Guelph, privately. She said she found the best way was to heat the cream to 150 degrees as soon as skimmed, and then cool it down before putting it into the vessel for it to ripen. We tried this way, and have had no trouble since, butter always coming inside of an hour, and no fresh cows.

HOWICK SUBSCRIBER.