

less amount upon the somewhat worn lands of that State. Of course, when good plump seed is used upon a rich, well-prepared field, considerably less seed is required, and in most cases we believe the chances of a good grass and clover catch will be better where the grain is not sown too thickly. At the same time, it is well not to overdo the thin seeding business, and we cannot too strongly advise each farmer to experiment repeatedly upon his own soil before adopting radical ideas in rate of seeding or other important matters.—Ed.]

Do't and be Dune Wi't.

To the Editor "Farmer's Advocate":

I was a little surprised to read your editorial in the issue of Aug. 17th, "Why Doesn't the Farmer's Son Marry?" Why, indeed! You go on to state the advantages the young man in town has—I always thought it was the reverse. You say that when a man has steady employment in town or city with an assured wage, he can generally find a house at a rental to suit his income, and he generally proceeds to settle down. Now, I always thought houses in town were very hard to get and the rents very high. Then, take the man with the wage. I don't want to discourage him. He may do all right, and no doubt often does, but I don't think he is in it with the man on the land. Strikes may come, the breadwinner fall sick, or something else happen over which he has no control, and where is he? If, instead, he were on a farm, his wife could manage the cows and the poultry, and they would wriggle along somehow. Then you go on to talk about the boy on the farm; if he wants to get married, where can he get a house? Where did his father get his house? Where did all the pioneers of this country, who came from the old lands, get their houses? Did they look to a fatherly Government to rig them out in a brand-new outfit, fine farms, fine buildings and everything up-to-date, or did they set out in earnest to get it for themselves? No doubt some of them got help, but not all; the most of them had to set to with a will and hew out homes for themselves, and endure all the hardships of pioneer life. They did not buy a new top buggy first thing and get their linen done at the laundry, and start out with cigar in their mouth to give the best girl a drive whether they intended to be married or not. But, taking things seriously about the young man of to-day who has worked at home till he is twenty-one or older. You say that perhaps the farmer does not wish to divide his property and go to the trouble and expense of putting up a new set of buildings. Why should he? If he has come through all the trouble and hardship of getting a farm for himself, and raised a family of sons and daughters and given them (as he should) a good education, and they have—as they should have—good strong healthy bodies, what is to hinder them from doing for themselves? There are very few farmers who would not help their sons all they could. Take the young man at twenty-one. He owes his parents something for keeping him all the early years of his life and giving him an education. They don't all get the education, but the majority do nowadays. Supposing he wished to get married, and wanted to rent a farm and have a house for his bride, what is to hinder him? Very few fathers but would be willing to give him a team, a cow and a pig or two, some poultry and seed to sow his farm with, perhaps the use of the implements from home to put it in with, and, provided his wife brought with her another cow and a few more things, what more would they want? I think they would be far ahead of the couple in town who started with an assured wage. The man with the wage has not the same chance to lay up for old age as the man on the farm. The latter, if he were the right sort and had the right sort of wife, could go on from year to year adding a little and a little, till in time he would be enabled to buy his farm.

The trouble is with the young folks themselves. They want to begin where their parents are now, or a little farther ahead. They want too many fine things—buggies, watches, bicycles, fast horses, etc.; and the girls are much the same—organs, silverware, carpets, etc., are what they want, and their houses furnished as well as their mother's. Such things are all right if you can afford them; otherwise, you have either got to wait till you are forty, as the Editor says, before you can get married, or start at the foot of the ladder with less. You cannot kill the goose that lays the golden eggs and still get eggs. I often tell the young folks here that if I were as young as I used to be and had my health and strength, I would not object to being married if I had only enough to pay the minister. There are other sides to this question which I have not room to discuss at present. If a farmer wishes his son to stay at home after twenty-one and the son wishes to stay, some provision should be made for him, what he is to get, etc., but if he wishes to get married, I don't see what is to hinder him. Let him "do't and be dune wi't."

A GREY CO. READER.

Where Wheat is Not Grown.

There are localities in Manitoba in which the wheat harvest and market is not the predominating topic of conversation, nor the work incident to either the all-engaging pursuit of the inhabitants. One such district extends fifteen to forty miles north-east of Winnipeg. Here, in the pastures of long, waving grass, and among the bluffs of poplar, scrub oak and cottonwood, a species of farming is pursued as different from that on the proverbial Manitoba "ranch" as the latter is from the methods of cropping in the southern cotton fields. Over this area of many miles in extent dual-purpose cattle feed, and upon their products the farmers place their chief dependence for the necessities of life. It is a safe resource—the herds of cattle supplemented by droves of hogs and flocks of poultry. There is never a total failure of revenue and seldom a diminution from year to year. In such a system of farming there is none of the feverish excitement of the wheat farmer, but also a sense of security and thorough contentment.

The products of this district are marketed in different manners. Where more than twelve or fifteen cows are milked the cream is usually separated with the machine, churned at home, put up into pound prints, wrapped in parchment paper provided by the city commission houses, and shipped once or twice a week. Where fewer cows are kept and the work of buttermaking is not popular, the cream is separated and shipped two or three times a week to the central creameries in Winnipeg. Occasionally one will run across a man who keeps from fifty to one hundred cows, and makes the product up into cheese or butter. Hog-raising is a natural adjunct to the dairy industry in this section, and every farmer sells a bunch or two each season. The prices this year are encouraging, and doubtless more porcines will be raised.

It is largely from this district that the Winnipeg butchers get their beef for their own killing, but the price they pay for it is absurdly low, and that seems to indicate that the great difference existing between live cattle prices at Winnipeg and the retail prices of beef is due almost wholly to the actions of the retail dealers.

It is sometimes argued that farming after the

oat straw are the chief fodders, both for horses and cows, while the nearby meadows—those historic lands which were allotted the volunteers of '85, and have been constantly changing hands since—furnish abundance of hay.

With the growth of Winnipeg, and the consequent development of the demand for fresh farm produce, will come a certain expansion in mixed farming operations throughout this and other districts. Fresh eggs, spring lamb, chickens, garden produce, new potatoes, fresh dairy butter, milk, etc., will all be demanded in larger quantities; this will inure to the advantage of the mixed farmers. One thing at present retards the growth of the trade between city and country, and that is the limited number of trains and the independence of the companies of this class of trade.

The suggestion a casual observer is inclined to offer inhabitants of the mixed farming districts is to work towards the building up of a herd of cows, every one of which would be, not simply a good cow, but an outstanding animal. As it is to-day, on most farms, but for the plentifulness of pasture land and the cheapness of fodder, not one-half the cows kept would pay for the feed they eat. Of course, the poorer milkers are generally the best beefers and raise the better class of calves, so that what is lost one way is often gained another, but the possibility of reaching a higher standard of milk production, without sacrificing anything of the meat-making possibilities, should not be lost sight of.

DAIRY.

Handling Milk on the Farm.

There is a steady, and, in many places, a rapidly-growing demand for cleaner and more wholesome milk and cream, both for direct consumption and for the production of butter and cheese. This demand will continue to grow in proportion as the consumers realize the importance of using a product produced under healthful and sanitary conditions, and the dangers which accompany the use of that produced under conditions both unhealthful and unsanitary. Many progressive dairymen are awake to this call for improved

quality, and are making an effort to meet requirements and seeking knowledge of how to perfect home conditions. The proportion, however, is small considering the number engaged in dairying in various ways, and there is great need of further interest in the matter.

To efficiently meet public demands for milk, butter and cheese, it is first necessary to have a thorough knowledge of the work to enable one to choose and adopt the proper conditions. It is the rule rather than the exception among farmers to be unfamiliar with the nature of milk contamination, and the general principles

underlying the development of flavors in milk and its products. These flavors are occasioned by the multiplication of exceedingly small germs (bacteria), each species of germ giving off its own peculiar flavor. It largely depends upon the handling of the raw material whether the flavors will be desirable or undesirable, as germs give the good as well as the bad flavors. All germs, or bacteria, are microscopic plants; in fact, the smallest forms of organic life known, but, though small, they carry on many processes of life similar to the larger plants. For growth they require suitable soil (or food), moisture, room to grow, and a suitable temperature. With all four conditions favorable they multiply with marvellous rapidity, and in their development the flavors are produced. Milk is an excellent food for all germs; that is, it contains suitable food and moisture, and with a favorable temperature radical changes soon occur. For the prevention of germ development two conditions are necessary—cleanliness and low temperatures. The first prevents inoculation with injurious germs, with which all dust and dirt particles are laden, and the latter prevents their development should the milk become inoculated at any time during the milking or subsequent handling.

Various methods of clarifying milk, such as strain-



The Canadian Pacific as a Horticulturist—In the Station Grounds at Regina, Sask.

fashion mentioned holds one too closely to his work, and that milking cows is disagreeable and tiresome, but this will depend upon the taste and customs of the people. Mr. Wm. Champion, one of the oldest dairy farmers in the section, sensibly remarked not long ago, that his aim was not to make a lot of money out of farming, but to have lots of fun out of his work, and everything on his farm goes to bear out this statement. The cream separator is run by a 2½-horse-power turbine engine, a pony upon a tread-power churns the cream, saws wood, turns the grinding stone, and runs other light machinery. As for the milking being disagreeable work, it is largely a question of a thing being what you believe it is. The writer well remembers when he, and, in fact, all the young men in his neighborhood, milked from eight to twelve cows twice a day, and when once accustomed to it the job did not seem any larger than if there were only two cows to milk.

In this land of dairy or mixed farming oats are the chief field crop. The soil is more adapted to their growth than it is to wheat, and it is found that they are a more profitable crop when marketed than is wheat. Oat sheaves, oats and