

Horticulture and Forestry.

Brown on Horticulture.

One of the most instructive little booklets to reach our desk for some time is entitled "Horticulture," and is a reprint of a paper read at the Brandon Farmers' Institute by Mr. Harry Brown, Horticulturist at Brandon Experimental Farm. In fourteen pages it contains a wonderful fund of information, including the development and present status of horticulture at Manitoba's noted experiment station. Mr. Brown is to be congratulated for the excellence of this work, a free copy of which may be secured by addressing P. Middleton, Hon. Sec., Horticulture and Forestry Society, Brandon, Man.

Trees for Wind-breaks.

At the Brandon Experimental Farm last year over 1,000,000 trees were grown from seed. These are being distributed through the country by the forestry department, and when a representative of the "Farmer's Advocate" recently visited the Farm, the forestry department, under the supervision of Mr. A. P. Stevenson, of Nelson, Man., were busy filling orders.

Shrubs and ornamental trees are sent out by the Experimental Farm department.

Potato Culture.

Should potatoes be hilled or not, is a question often asked by the amateur. The answer depends on conditions. Low ridging I find to be most satisfactory on ordinary soil; just ridging the plants enough to prevent the stalks becoming exposed to the sun, and to keep them from the ground. Continual stirring of the soil between the rows is the secret of the immense yields that have been secured by level culture, for by so doing the moisture is kept from evaporating, and the air entering the spaces between the particles of stirred soils, acts on the compounds containing plant food in the soil, thus liberating the elements that are to a great extent unavailable. Holding the moisture in the soil and the prevention, not the killing of weeds, is the main thing in potato growing. Whether it is advisable to hill or ridge is a secondary consideration, the answer to which depends on conditions. Some people half prepare the soil before planting, and try to finish it while the crops are growing. The successful grower gets the soil into the best possible condition of texture and fertility beforehand, and then tries to maintain the soil in that condition throughout the growing season.

E. MACKINLAY.

Poultry.

Two Eggs Per Day.

A New York State poultry-raiser, who has been experimenting for some years to produce a strain of hens that would lay an egg every day in the year, has met with such encouraging success that he is now theorizing on the possibility of a breed of hens that will produce two eggs every day. On March 1st, he says, one of his special hens became sick, and was put in a coop by herself. The following day she laid two eggs, one at 9 a.m. and the other at 4 p.m., and this had been kept up a period of 34 days, to the time the paragraph was published. It is the belief of the owner that he has the greatest hen for commercial purposes in the world.

"This," says a writer in the Farmer and Stock-breeder, "is a tall tale, even for a Yankee Sunday paper, but before we finally dismiss it let us examine the probability of it. The ancestors of the domestic fowl of the day, the Jungle fowl, probably never laid more than twelve to twenty eggs in the year. Even now we have hens laying under fifty eggs in the year, but there are various authentic instances of individual hens laying 300 eggs in the year and over. Considering how far the hen has been educated into laying early and laying well, there is no reason why she should stop at this total. But two eggs a day, and for a period of thirty-four days! The most common reason for a hen laying twice in one day is that a fright or some cause makes her retain a perfectly shelled egg, and meanwhile the egg next it in the ovary is growing, and is produced a few hours after the delayed egg before it. As a general rule, more than twenty-four hours elapse between two eggs. With this particular hen the growth must have been more than twice as fast as usual. The feat is not impossible, but it is very improbable, and though one cannot believe the tale of the hen, evolution has done so much for the fowl that one can say at what point in its evolution its capability is reached."

Rearing of Incubator Chickens.

It was suggested to me to write a few lines on my method of raising early chickens. I have an outdoor brooder, which cost me \$20, express included. In March I had both the incubator and brooder in a sitting-room which we do not use in winter. I put the brooder on the gravel, in the front of the house, early this month; so that the little chickens are quite a distance away from the hens, and I have not started my flower



RAILWAY AND GOVERNMENT OFFICIALS IN BARR COLONY.

1. C. W. Speers, special immigration agent; 2. T. Dillinger, Supt. West Div. C. P. R. at Regina; 3. Geo. Langley, land agent, Battleford.

garden yet. For the first hatch I bedded the brooder with lawn clippings, from last summer, and most of the chickens suffered from indigestion; for the second hatch I bedded with sand, and clippings on top, and not one chick was similarly affected. From the day they go into the brooder I feed "johnnycake," made of four parts Indian meal, two parts bran, two parts provender or shorts, one part white flour, one part bone meal; in the early spring, not later, large handful of salt; tablespoonful of soda; mix stiff with buttermilk, and bake three hours in a paper-lined meat pan. I soak the crust of the cake in cold water. My March hatch had slices of raw mangels and potatoes, cut lengthwise and chopped crisscross from one end to the other, and it gave them plenty of exercise trying to pull the pieces apart, which they thoroughly enjoyed, and I always tried to give them two or three whole boiled potatoes after dinner to pick at. Every warm, sunny day, I carried the chickens to



BARR COLONISTS HAPPY AND HOPEFUL.
The younger element will soon learn to love Canada.

a sheltered corner of the garden. At three weeks old they had to go to an amateur brooder in the henhouse, and now, at six weeks old, they are being promoted to the roosts; we were obliged to make a step-ladder for them to climb up by. Brooder chickens are wonderfully tame, and follow me wherever I want them to go, and give me very little trouble.

TRIX.

Raising Ducks.

Although May is the best month in the year to have ducks or chickens hatch, the hatching of duck eggs may be continued on into June with good results. Ducks are a fast-maturing class of fowl, and do not need an early start to make them ready for the table at Thanksgiving or Christmas. In fact, if it were not for the fact that they forage most of their living, the expense of keeping them from maturity until the market requires them would far exceed their value. The market for ducks, and for all other poultry, promises to be active for some time yet, and for this reason all the eggs available should be set, even though it be late in the season. Ponds or streams are not essential to duck-raising; all the water that is required is plenty for drinking purposes, and it should be clean, as dirty water is liable to cause digestive troubles. If fed lavishly, there is little profit in duck raising, but when they are compelled to forage, there is something to be made from them. See that there is sufficient to supply the demand when owing to prosperous times people begin calling for more fowl.

Henhouse Cleaning.

When the back yard has had its annual spring cleaning and everything about the building begins to take on a new appearance before entering upon the long hot days of summer, it is a good plan to devote a little attention to the inside of the henhouse. They all need an annual cleaning; some need more light. Cleanliness and sunshine are the best and cheapest disinfectants one can employ. It might pay to put another window or two in the sunny side of the house, but by all means give it a good coat of whitewash after it has been well cleaned out. A good wash was described in our last issue. The work is facilitated if a spray pump can be employed. White wash is death to lice, and fills the small cracks in the walls, thus preventing drafts; besides, there is something about a clean, white henhouse that makes the hens respond and try to do themselves proud. One can also relish an egg that is laid in a clean house better than one that is picked up any old place, or in a dirty corner.

Apiary.

To Detect Foul Brood.

BY MORLEY PETTIT.

While those in authority may be doing all in their power to eradicate foul brood, great and valuable assistance can be rendered them by each individual bee-owner throughout the land. Every apiarist can, and should, be his own inspector, if he is willing to "qualify." As it is necessary to have the colonies strong for the main honey-flow, and as the disease in question destroys the young brood, and so cuts off the supply of young bees, it should be detected and checked or cured as early in the season as possible. In colonies where it is far advanced, the symptoms are very evident: weakness of the colony, listlessness of the bees, the repellant odor, the ragged cappings of the brood, the shapeless dead brood, and the general unprosperous appearance of the combs and the honey, make the diagnosis easy. But if the colony be yet strong, and but slightly affected with the malady, the case is quite different. It will then be necessary to examine minutely a bad case to be able to detect the same symptoms in a much modified form. Take from the center of the brood nest a comb—the newer it is the better—in which there has been brood during the past breeding season. Hold it in strong sunlight, so that the light falls on the lower sides and bottoms of the cells. Examine these carefully, and you see in the lower sides brownish or grayish black scales, nearly as wide as the cells, and reaching end slightly curled up. These scales are stuck fast, so they cannot be removed. They are the remains of brood destroyed by foul brood, and contain the germs of the disease, which will live in them for years. The bees do not remove them, but will store food in the cells which they occupy, and this honey, becoming infected, is the