

ROOT HOUSE.

P. C., New Brunswick:—"Please let me know how to construct a root house holding 2,000 bushels, to be outside of other buildings. Would you prefer sawdust for packing, and how thick?"

[A few years ago the writer aided in constructing a frame root house above ground which gave satisfaction for a number of years. To hold 2,000 bushels, the building should be 30 by 20 feet and about 7½ feet deep, so that the roots could be 7 feet deep. Stone foundation walls should be built, coming about a foot above the ground. Two- or three-inch plank should be laid flat on soft mortar on top of the wall and studding set on top of the planks. The studding should be fully six inches wide, between which should be firmly packed dry sawdust. Above the root house should be a double floor, which may be thickly covered with straw or sawdust. The spaces at the sides, which are filled with sawdust, should extend into the loft above so that it may be packed down and refilled each fall. All windows and doors should be double, and as far as possible the building should be draft proof. It is necessary to allow for ventilation, which may be done by a 3-inch channel (which may be closed) through the wall near the ground, connected with a bottomless box 8 inches square and extending diagonally through the house on the floor. The top of the box should be 2-inch slats three inches apart. The far end of the box should meet an upright air shaft reaching near the ceiling. There should also be a ventilator up through the roof, which could be closed if desired. It is well to have windows on two sides of the building for easy filling. The walls should be double inside and battened outside.]

RECIPE FOR TANNING DEER SKINS.

To the Editor FARMER'S ADVOCATE:

SIR,—“Enclosed please find sample of tanned deer skin, also the recipe for same that my father has used for years with good success. The skins give the best of wear. First soak the skins from two to three days to remove the hair and grain. Take a half round block made very smooth, use a square instrument for removing the grain. For the liquor make a strong brine of soft water and salt, put in oxalic acid enough to make it white or a sharp sour, just enough to cover the hides. Put in liquor from thirty-six to forty-eight hours, according to thickness of hides. Rub hides frequently and keep liquor a little warm, then run them through a wringer to take out liquor, wash well and wring again. Make a suds of soft soap and a little salt, just enough to cover hides, with about an ounce of lard for each hide. Leave in this form twenty-four to thirty hours, rub the same as in first liquor, then wring again, dry over a slow fire, stretching and rubbing frequently. If you wish to buff them, spread the skins out, sprinkle on a little ochre and brush it in with a common brush. Hides tanned by this recipe will outwear the old Indian tanning.

E. W. BROOKS.

BUILDING SILO.

SUBSCRIBER, Elgin Co., Ont.:—"Please give your opinion as to building silo. Would you build inside or outside? I have plenty of room inside, and could build it 25 feet high. If inside, would you build round or square?"

[Provided the silo can be placed as near the feed room outside as inside the barn, we would not think of using indoor space, especially in a district as southern as Elgin County. It is much better to have extra barn room than to need more, and we see no advantage in putting the silo inside, so far as the effect upon the silage is concerned. If the silo is to be permanent, we would recommend constructing it of cement concrete, either eight-sided or square with the corners cut off. If the silo is to be of wood, we recommend the round stave structure, either inside or outside of building, carefully put up and the hoops tightened each year in spring after being emptied, and slackened in the fall as occasion demands. We will be glad to receive suggestions as to the best silo to build.]

EXPRESS RATE ON POULTRY.

R. S., Lambton Co., Ont.:—"I received a Bronze turkey hen from Glencoe (a distance of 20 or 30 miles); the express was 70 cents. When I objected to the high rate the express agent informed me all thoroughbred or fancy poultry was charged double rate, common or dressed going at single rate. The parcel weighed 30 pounds. Who is right, and if he charged me double rate wrongly, where shall I look to to have this thing stopped?"

[The Canadian Express Co. officers at London advise us that there is no difference in the rates on pure-bred and common-bred birds unless valued at over \$50, when there are valuation charges. When in a secure slatted coop the ordinary merchandise rate is charged, and the amount will vary with the distance; if the bird is in a canvas coop, so that no other package could rest upon it, then double merchandise rate is charged. If a mistake was made the local office should rectify it for you.]

POLLED DURHAMS.

If S. H. B., Simcoe Co., Ont., will correspond with the undersigned, I can give him all the necessary information he requires in regard to Polled Durhams. I can furnish him with printed matter which I received from the President of the Polled Durham Association, who is Dr. William Crane, of Tippencanoe City, Ohio.

ANDREW GILMORE, Athelstan, Que.

SOFT EGGS—HENS LOSING HEAD FEATHERS.

W. BROS., Ontario Co., Ont.:—"For the past week many of our hens have been laying soft-shelled eggs. Is the cause due to the lack of something they do not get that helps to form the shell? They have been getting all the small gravel and old plaster they require, and frequently oyster shells. Is it necessary to keep some kind of sharp grit, such as oyster shells, where they can have free access to it at all times? We give a warm feed every morning, composed of boiled vegetables and roots; with water, oats and barley (chopped), and clover heads and leaves (steamed). At noon we give them turnips to pick at. Do you think turnips as good for them as mangels? They don't appear to relish the turnips like they did a month ago. At night we give them a grain feed—oats or barley, with wheat mixed through occasionally. We try to keep them as active as possible by scattering a little grain through the litter. There are several of our hens with the feathers all off the head. The feathers come off gradually until the head is bare. Is this a disease? What is the cause and remedy?"

[Soft eggs are generally caused by overfeeding the hens, and the remedy is self-evident. It may, however, occur from want of lime, which is supplied in best form in the slaked powder condition, and smashed oyster shells. The fowls should have access to these at all times, and a handful of lime thrown in the drinking water will also hasten a remedy.]

We are inclined to attribute the loss of head feathers to feather-eating, which becomes a real vice with fowls rather closely confined, and whose diet is lacking in animal food. The vice grows and spreads in a flock in which it gets a start. Any bird known to have it should be isolated, as it tempts the others. Give the flock more liberty, and feed two or three times a week a fresh liver, crushed green bone, or meat scraps. Occasional cooling doses of Epsom salts, say 10 grains each in soft food, will tend to correct an abnormal appetite for feathers.]

PERMANENT PASTURE ON LOW LAND.

G. M., Hastings Co., Ont.:—"I have some heavy black clay land, which, for the present, I find it impossible to drain. I have therefore decided to pasture it for some years. Will you kindly let me know, through your columns, what grasses are best suited for such land? Are Orchard and Red-top grasses suitable for a permanent pasture, and if so, in what proportion per acre would you mix them with other grasses? Would it be a sufficient covering for Orchard grass seed or Red-top to merely pass the roller over it? If not, what is the best way to cover the seed?"

[Orchard grass will perhaps furnish the earliest feed in spring, but it has the objection of growing in bunches, and becoming coarse if not kept eaten down. Red-top is suitable for pasture, but does not yield heavily. Blue grass should, we believe, form the bulk of the seeding. As a mixture we recommend Blue grass, 6 pounds; Red-top, 4 pounds; timothy, 3 pounds; and a pound to the acre of white Dutch clover will do good on the spots where it gets a hold. After sowing the seeds, either alone or with a light seeding of grain, the ground should be harrowed with a light harrow and then rolled. The seed of Blue grass and Orchard grass is light and chaffy, and hence not easily covered.]

BARK LICE ON APPLE TREES.

G. G., Wellington Co., Ont.:—"I have a fine apple orchard, but it is infested with bark lice. Some fine trees are nearly dead. Would like to know through the columns of your paper the best remedy. Have been advised to spray with lye and whale-oil soap while the buds are dormant. Would this be effective?"

[If the bark lice are of the oyster-shell sort, spraying with kerosene emulsion before the buds start, and again in June when the eggs hatch and the minute insects are seen moving on the limbs, will destroy most of the insects. It is also a help to scrape off the rough bark with a dull hoe, which will not only remove many scales, but clean the limbs so that the spray can reach the insects. We repeat the directions for making the emulsion: Dissolve half a pound of soap by boiling in two gallons of water. Take from the fire, and while hot turn in one gallon of coal oil and churn briskly for five minutes, or until a creamy emulsion is formed. Dilute with nine parts of soft water for use. Whale-oil soap, two pounds to one gallon of water, is recommended for spraying trees in winter when infested with San Jose scale. For June spraying, the soap should be dissolved one pound in five gallons of water. See article on caustic potash for fruit trees in last issue.]

MARKETS.

FARM GOSSIP.

At an international agricultural congress to be held in Paris, July 9th to 16th, a plan will be proposed to ask the farmers of the world to reduce their wheat output by 20 per cent., and not sell a bushel for less than a dollar. J. Chanley, of St. Paul, executive agent of the Farmers' Alliance and Industrial Union, the National Cotton Growers' Association, the Farmers' Federation of the Mississippi Valley, and the National Grain Growers' Association, is the chief promoter of the international agricultural trust in America. Prof. G. Ruhland, of the University of Fribourg, Switzerland, is the chief promoter of the plan in Europe.

Suitable Seed for P. E. Island.

In P. E. I. the farm fields are only getting clear of their winter covering. In the western part the snow lay earlier and more constantly on the ground, consequently clover and other grass seeds appear well preserved. Elsewhere, on fields exposed by frequent thaws and frozen over on bare ground and ice, a large portion of the grass seeds perished, and even old pasture fields suffered, but from present appearance, if warm, showery weather prevails during the opening spring, the meadows will at least give an average return. Formerly, Island red clover seed used to be imported from Great Britain that would hold in the ground for several years and produce a heavy crop. Several farmers are raising the seed of it yet, and it is in more demand and selling higher than any of the seeds imported from Ontario or U. S.; the latter cannot be depended upon more than one season. Our Island farmers are generally too careless about raising their own grass seeds. Both Island timothy and clover seed sells higher and are preferred to the imported, and those that pay attention to it succeed well. There is a heavy outlay of money annually from the Province in the purchasing of seeds. We do not consider it a loss to import good seed grain that will suit the climate. A few years past most of the wheat imported was the "White Chaff," which suited our soil and yielded well for a few years, but in 1888 it rusted badly and became almost a total failure. Imported wheat that suits this climate generally yields a good percentage over Island-grown wheat. At present the varieties mostly looked for are "White Russian and White and Red Fyfe," which produces from 16 to 25 bushels an acre on an average. On account of the dampness of the atmosphere, wheat is not always a profitable crop. Farmers are now paying more attention to dairying; it gave them a profitable return last year. They have plenty of feed this spring for cattle, and if the summer grazing proves good there will be more cheese manufactured in this Island than ever before. J. E. S.

Perth County, Ont.

Spring is here, but very backward and wet, making it hard for those dilatory ones who left their plowing undone last fall. It is also making matters serious for the many who are scarce of feed and cannot sell their cattle on account of the demoralization of the market; but one redeeming feature in the situation is the temporary puffin hogs. Some have even commenced feeding a low grade of flour. It sells at \$21 per ton, and some claim exceptional gains from its use. It is considered much superior to corn for finishing at \$19. Horses are in brisk demand for export, and this is even taking effect on the second-class stock and light drivers. Sheep are "out of sight"; in fact, mutton is not in the local market. Eggs are down to 10c., and butter about the same. Cheese factories have commenced operation with excellent prospects for prices. Laborers are scarce, wages ruling at about \$20 a month, for seven months, for average men. This in part is due to the great exodus westward. At the last meeting of the Blanchard Township Council, in reference to road management under the new system, it was decided to retain the pathmasters, subject to control of a commissioner, but it not being expedient at present to appoint the latter, the Council, as a whole, resolved itself into a board of control and assumed the responsibility. It is hoped they will see their way to the introduction of wide tires. Work on the land has just commenced, but it is very tough and much of it still wet. However, most of those in this section are well ahead with the plowing, and as very little gang-plowing is done, the crop is soon put in. Corn is being drilled in the highest notch and have better results. Lambs are doing very well; our ewes have all come in. Our brood sows have done fairly well, and the young pigs are growing nicely. Our roots were all eaten up some time ago, and we find it an expensive matter to keep a lot of pigs on bought grain, but we were fortunate in getting two loads away at 6 cents, although the buyers are now only paying 5½ cents, but it is likely that the price will again come up, as there are not many pigs in the country. We are now paying \$17.75 per ton for corn and about the same for shorts. Cheese has been selling at from 11 to 12 cents, and it is going away without much curing—in fact, almost out of the hoop. Our factory commenced operations in the end of March, and is making four days a week. The make is not heavy, but is steadily increasing. Beef cattle are not so much in demand as they were some time ago. There have been a great many sales of two-year-old steers at about \$25 for the average cattle. We have sowed a small plot of peas and oats for early cutting for the cows, and will follow up with other plots later on. One of our townships has lately passed a tag by-law by which only those cows which are ornamented with the necessary tag, purchased from the clerk, will be allowed to pasture on the road from 5 a. m. to 7 p. m. Other townships have tried it and are satisfied with the results. D. L.

Oxford County.

The season, though perhaps a little late, has opened out beautifully. We commenced sowing on the 21st of April, and on the evening of that day we had a beautiful rain and the grass is green and fall wheat is looking very well. There are a few spots in ours where the water froze up when the snow melted which look a little brown, but I think these may come all right yet. For spring grain I have been sowing as shallow as possible. I used to sow the medium depth, but now we set the drill tubes on the highest notch and have better results. Lambs are doing very well; our ewes have all come in. Our brood sows have done fairly well, and the young pigs are growing nicely. Our roots were all eaten up some time ago, and we find it an expensive matter to keep a lot of pigs on bought grain, but we were fortunate in getting two loads away at 6 cents, although the buyers are now only paying 5½ cents, but it is likely that the price will again come up, as there are not many pigs in the country. We are now paying \$17.75 per ton for corn and about the same for shorts. Cheese has been selling at from 11 to 12 cents, and it is going away without much curing—in fact, almost out of the hoop. Our factory commenced operations in the end of March, and is making four days a week. The make is not heavy, but is steadily increasing. Beef cattle are not so much in demand as they were some time ago. There have been a great many sales of two-year-old steers at about \$25 for the average cattle. We have sowed a small plot of peas and oats for early cutting for the cows, and will follow up with other plots later on. One of our townships has lately passed a tag by-law by which only those cows which are ornamented with the necessary tag, purchased from the clerk, will be allowed to pasture on the road from 5 a. m. to 7 p. m. Other townships have tried it and are satisfied with the results. D. L.

P. E. Island.

Snow all gone and fields about dry. By present appearances we will be at work on the land in a few days. The winter has been the mildest remembered here. Clover has stood well, and is beginning to start up. The old meadows are not winter-killed, and we expect good grass early. Fruit trees have come through well, and are not broken with snow or barked by mice as in winters when there is much snow. People here are giving more attention to orcharding, and are planting out numbers of apple trees of the best varieties. The P. E. I. F. G. A. is doing good work in educating the farmers in horticulture, and has already created quite an interest in the growing of apples for shipment to the Old Country.

The Easter beef shown here this year was the finest shown yet. One steer fed by Blake Bros., Charlottetown, weighed 2,600 lbs., and was sold to a Picton, N. S., butcher for \$200, the highest price ever paid for a beef animal here. Some others that weighed up to 1,800 were very fine animals and choice beef.

Nearly all our cheese factories are compelled to enlarge their buildings and plants this year to be ready to handle the increased supply of milk. No cheese made here yet, nor will be before the 15th of May. The good price of butter is very encouraging to patrons of creameries.

Prices.—Best cattle are selling for 5c., with second grades from 3c. to 4c., according to quality. Hogs supply small, bring \$6.50 dead weight. Oats, 32c. Potatoes, 25c. Butter, 25c. to 25c. Hay, \$8. Milch cows, \$25 to \$35. Horses, draft, weight 1,200, \$100 to \$120; drivers about the same price. Timothy seed sells for 4c. per pound. It is so plentiful here that none will be imported.

Farmers are setting about their work with a very hopeful feeling, and are expecting a successful season in all the different departments of their business. W. S.

Manitoulin Island.

We had a very mild and open winter, and spring is coming in the same way, only earlier than usual. We had our first rain on the 7th of April. Stock is coming out in splendid condition this spring, and prices are looking up. Fall wheat is all right, and promises to be a good crop. Clover is also very good. Many of the farmers are busy in the sugar bush, but the run of sap has been light as yet. Potatoes are very scarce here this spring, and bring 50c. to 60c. per bushel. Butter is worth 20c. to 22c.; eggs 15c. to 20c. W. J. W.