

The Illustrated
JOURNAL OF AGRICULTURE

THE ILLUSTRATED JOURNAL OF AGRICULTURE is the official organ of the Council of Agriculture of the Province of Quebec. It is issued Monthly and is designed to include not only in name, but in fact, anything concerned with agriculture, as Stock-Raising, Horticulture, &c., &c.

All matters relating to the reading columns of the Journal must be addressed to Arthur R. Jenner, Esq., Editor of the JOURNAL OF AGRICULTURE, 4 Lincoln Avenue, Montreal. For subscriptions and advertisements address the Publishers.

TERMS—The subscription is \$1.00 a year Payable in advance, and begins with the July number.

ADVERTISEMENTS.

All advertisements appear in both Editions, giving a circulation of

55,500 — ENGLISH, 10,000
FRENCH, 45,500

FOR RATES, address to

EUSEBE SENECAI & CIE.,

20, St. Vincent St., Montreal.

Table of Contents.

THE FARM :

Mangel-cultivation, Drummond on 143
Compton Model-farm... 143
Firm country roads... 143
Economy in hauling loads... 144
Ferrets for exterminating rats... 144

THE DAIRY :

The premium on export-butter... 144
Butter for export... 145
Milk-cows, Bouthillier on... 145
Cure of Milk-fever... 146
Dairy-Shorthorns... 146
Milk-producing crops... 146
Flax-growing... 147
Saltpetre and turnip fed milk... 148
Agricultural Societies and Farmer's Club... 148

NOTES BY THE WAY :

Cooked food... 150
Seed-grain... 150
Red-clover... 150
Cultivators or grubbers... 150
Artichokes... 150
British agriculture... 150
"The Farmer's Advocate"... 150

THE HORSE :

The Coach-horse, W. R. Gilbert on. 151
Clipping horses... 151
The Ideal road-horse... 151

HOUSEHOLD MATTERS :

Child's wool petticoat... 152
Combining colours... 152
Pots and baskets... 152
Kitchen helps... 152
Knives and forks... 152
A spiral... 152
Water at bedtime... 152
Hot water for thirst... 152
Good thoughts... 152
Dress-making... 152

THE POULTRY-YARD :

Farmer's Institutes... 153
Mashes for fowls... 153
How to utilise waste... 153
Hen and eggs, Macfarlane on... 154

FRUIT AND ORCHARD :

Celery in beds, Prof. Craig on... 154
Bordeaux mixture, G. Moore on the 154
Apples, etc., Macfarlane on... 155
Berries, who should grow... 155

MANURES, ETC. :

Muck, Prof. Shutt on... 155
Apatite... 156
Lunus, Dickson on... 156
Coal-ashes, value of... 157
Fresh and rotted dung... 157

CORRESPONDENCE :

Prof Saunders on seed grain... 157
W Dunlop on cold storage... 157
Abolition of Quarantine... 157

THE FLOCK :

Gibson on winter-quarters... 158
Hampshire-downs... 158
The Queen's sheep, prices of... 158

SWINE :

The health of swine... 158
Pleuro-pneumonia... 159
Pork-disease... 159

ILLUSTRATIONS :

Flax... 147
Prize Berkshires... 151
"Maxwell" Hackney stallion... 153
Bordeaux mixture... 155

THE ILLUSTRATED
Journal of Agriculture.

Montreal, February 1, 1897.

The Farm.

MANGELS : DANIEL DRUMMOND.

**Fall manuring—Two Ploughings—
Spring preparation—Keep the
moisture in—Hoing and singling
No earthing up.**

THE CULTIVATION OF MANGELS(1)

The soil best suited to the cultivation of mangels is a loam, either a clay or a sandy one; the clay loam will probably give the larger crop but will be a little more difficult to work.

Mangels are generally sown after a grain crop and the preparation of the soil should commence immediately after the removal of the previous crop. Our custom is to apply the manure to the land first, as we approve of manuring in the fall (2) for mangels; then plough lightly, say 5 or 6 inches deep and let it lie; during this time a great many weed seeds will germinate, so that when we come along with our second ploughing we kill them, this second ploughing may be as deep as possible say 8 to 9 inches deep and leave it turned up to the winter's frosts to mellow it. In the spring, as soon as the land is dry enough to harrow, give it a good harrowing to start some more seeds, leave it alone until it is in a thorough good condition to work, then it must be prepared by a thorough good cultivation. If it is inclined to be clayey, this may be done by the cultivator, but if friable, by all means plough it again, but be sure and follow the plough with harrow and roller immediately so as to prevent a too rapid drying of the soil, as this is one of the most common errors made in the cultivation of a root crop and is very often the reason of a blanky crop (3). After the land is thoroughly prepared we drill it up about 27 inches wide but not too high roll the drills,

(1) Another of the 1895 Competition Essays.
(2) On heavy land, but surely not on light land. Ed.
(3) Very good indeed, Mr. Drummond. Ed.

and then sow your mangels in the top of the drill.

We have found it a good plan to mix some quick germinating seed with the mangel seed and have found turnip seed very good for this purpose, about ¼ lb per acre; mix before putting the seed into the sower, then if there happens to be any blanks in the mangel you will be very likely to have a turnip and it may be left. (1) The time of sowing should be as early as possible as they need the whole season for growth. Sow about 5 lbs of seed per acre. (2)

As soon as the rows can be distinctly seen, they should be side hoed, and then when about 3 inches high should be singled out to from 9 to 12 inches apart in the row, this can be almost all done with the hoe. After the thinning they must be kept thoroughly cultivated by horse hoe and also by hand, until about the middle of July when the leaves will be covering almost all the ground; as to earthing up unless the land is very flat and not drained would not do it, as there is no benefit to be derived from it except surface drainage. (3) We have succeeded in always growing large crops of mangels by the foregoing manner of cultivation, the crop ranging from 20 to 40 tons per arpent and without much hand weeding.

An excellent description of very good work. Ed.

COMPTON MODEL FARM.

A visit to that institution would convince any reasonable person that the directors of the farm have done a good deal towards making that establishment one of the best schools for giving young men a practical training and scientific knowledge of farming. With this end in view, the directors have made arrangements with Prof. John Ewing, of Melbourne, to give weekly lectures to the students of the school, and fortnightly in the Town Hall, Compton, to all who may attend. The butter factory connected with this institution has been a success from the very start, and the highest price has been obtained by the patrons for their butter. Still, the government, with the directors of the school, have decided to build a new creamery, of a larger capacity, with all the modern machinery that can be procured, and when complete, to rank as one of the best in the Dominion. The foundations are now laid and the walls built, with running water, so to be ready for operation by the 1st of May, 1897.

In order to give to the farmers in the vicinity of Compton as well as to those who reside at some little distance from the creamery an equal chance to patronize the new creamery, the directors at their annual meeting held at the Model Farm on the first day of December passed the following resolution:—

"That on and after 1st May, 1897, all patrons bringing milk to this factory, residing outside the following limits, would receive a rebate of \$1.00 per ton on all their milk delivered at this fac-

(1) But the main object is to distinguish the rows where the mangels will be and so get the horse-hoe to work earlier.—Ed.

(2) Good, again.—Ed.

(3) Except in the extreme north of England and in Scotland, earthing up roots is never practised; and even potatoes are now hardly ever so treated. Why confine the rootlets that would travel in search of food if they could? Ed.

tory, viz: West of Grand Trunk Railway track, East of Moe's River, North of the Waterville Road leading from the Charles Rae place, and South of the Belanger road."

"The Sherbrooke Examiner."

FIRM COUNTRY ROADS.

**Easily Secured by the Use of the
Scraper and Tile Drainage.**

The progress made during the past few years in the improvement of streets and public roads has been as surprising as in other lines of public concern. By the use of tile drainage and of machinery for grading, the ordinary prairie roads are kept as smooth and firm during the larger portion of the year as the best macadamized streets of the cities. Perhaps no better implement has yet been made than the steel scraper in the form of a long blade carried at an angle suspended to a frame on wheels, corresponding to the running gears of a wagon. This machine is owned usually by a township and is operated by men and teams employed for that purpose by the day. The force necessary to operate it consists of two men and from four to six horses.

The prompt operation of a force like this answers as the ounce of prevention and the pound of cure at the same time. The work is rapid and cheaply done, and if applied two or three times a year, the frequent dressing up prevents the wasting away of the road bed and maintains at the same time the smoothness of surface not obtainable in any other way. Two or three times round carries the movable surface towards the centre of the road. There are two or three methods in Illinois in force by which the funds for road making are expended. By a vote at the town meeting an assessment is provided for and the tax is invested in road improvement by the town commissioners.

Where no such vote is taken, the work is principally done by the poll tax, which enables people to work it out at their leisure and about as they see fit. By this plan the work is usually done in a slipshod manner. The roadmaster may be competent, but the work is not sufficiently under his control to enable him to systematize and use the labor which is legally available for such purpose to the best advantage. By the use of the same amount of ready money as may be represented in the poll tax, much better results may be obtained than can possibly be expected from that labor expended without any definite object in view. It is surprising to see what good roads and well-kept lanes do for a country in the appearance and the real value they bring to those who are willing to devote some attention to the subject. In fact the character of the public roads is an indication of the character of the farmers whose holdings are tributary to them. The sides of the lanes should be kept smooth enough for the mower, which should be used as often as needed.—Farmer's Union.

ECONOMY IN HAULING LOADS.

In a talk on good roads A. J. Johnson, a civil engineer who has done some very effective work in road construction in New Jersey, gave the following rea-