

## FARM.

## The Economical Production of Feed and the Feeding of Cattle.

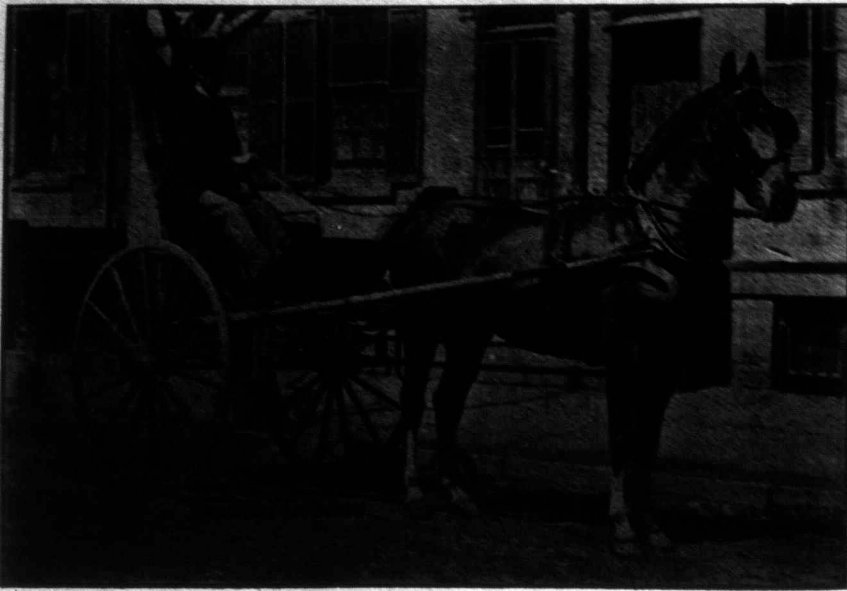
To the Editor FARMER'S ADVOCATE:

SIR,—It is the intention of the writer to describe methods of producing food for cattle, and a system of feeding which the average farmer could adopt without much expense, and which would increase the number of cattle that could be raised and fattened materially.

In the first place the writer's experience goes to show that the corn plant is the cheapest cattle food that can be grown, and that when it is cut up at the glazing stage and preserved in a silo it will yield a

The writer has applied the system of using cut hay, ensilage and pulped roots for stockers bought cheaply in the fall, dehorning them, and having them run loose in a big shed. Thirty-five head have been turned in and fed this mixture in a long trough with no meal, and for three seasons it has proved a success and very profitable. The intention was each year to finish these cattle on the grass in summer, but before spring they have every year improved so much that a little meal, about a pound per head per day, was added for a month or six weeks, and then they were sold at a good profit without holding them as long as intended.

Undoubtedly the aim should be for the average farmer of Ontario to raise all the food for cattle that he requires, or as near it as possible, and to feed what he raises on his farm, producing beef and hog products, butter and cheese, and by feeding what he raises on his land and returning the manure, the fertility of the land will be kept up, while obtaining a profit from it to a greater extent than can be derived in any other way; and while grain for sale may be produced, and in many cases the circumstances of individuals require that they should do so, yet it must be remembered that when the grain is sold and taken off in that way fertility is removed, and the farm is left with that much less plant food, a great part of which would have remained in the manure returned to the land when the grain was fed on the farm. SUBSCRIBER.



HACKNEY MARE, JESSICA.

Winner of Female Hackney Sweepstakes, Sweepstakes for English Medal, and First Prize for High-stepping Mare or Gelding.

OWNED BY ROBT. BEITH, M. P.

greater quantity of good food for cattle per acre than any other crop now in use. On average land twenty tons per acre can be grown, the corn being planted in rows about three feet apart, and the kernels eight inches apart in the rows. Frequent shallow cultivation is important, and should be continued until the corn is five or six feet high, using a single horse scuffer, and in dry weather this becomes more important and helps the growth of the corn greatly.

There are many varieties which mature sufficiently, and any good seedsmen can recommend a number of different kinds of corn which have been well tried and proved. It is better to secure those kinds which mature early and have good ears, and plenty of them, as the grain in the ears saves feeding so much meal as would otherwise be required to fatten cattle.

Twenty-five pounds of corn ensilage per head per day, mixed with an equal bulk of chopped hay and straw, half of each, and one peck of pulped roots, turnips or mangels, make an excellent ration for an average cow or steer, with chop or meal, mixed oats and barley, or other grain of that kind to the extent of from three to twelve pounds per day, depending on size of the animal and the nearness to finishing for market, feeding a light meal ration at first, and gradually increasing it and increasing the proportion of hay when hay is cheap and plenty of it on hand. This ration is for fattening cattle, and exact quantities of food per head cannot be properly given, as the judgment of the feeder must be used, and on his observation of how much each animal can eat up clean, and on the moderate increase of the chopped grain or meal, so that he will give only what the animal can profitably take, the success of the enterprise largely depends.

It should be always remembered that the rough feeds—corn, straw, and hay—are cheaply produced, and being plain and not rich food, all the animals will eat up clean will do them no harm; while an excess of meal may stall them or get them off their feed; also that the greater the proportion of rough, cheap fodder eaten by the cattle, the greater the profit by obtaining increased weight at the least possible cost.

The raising of clover to be fed on the farm, I would place next in importance to the corn, and perhaps it should be placed first, as the benefit to the land from the nitrogen gathered from the air and stored in the roots and in the plant itself is very great. Good clover hay, with well-ripened and well-preserved corn ensilage, makes a complete ration, containing all the elements required for growth of cattle, and for the ordinary breeding stock or for running light cattle through the winter, clover hay and ensilage are sufficient, though the addition of roots is undoubtedly of advantage, especially when pulped and mixed with cut hay and ensilage, the roots being so well liked by cattle that by mixing them with the other rough feed they will eat more of it, and while roots contain a very large percentage of water, yet the dry matter in them is very digestible, and is assimilated by the cattle with very little loss passing through into the manure.

to the consumer, has induced me to place before the public my method of culture, which has gained for me the highest awards at the principal exhibitions, including six silver medals at Toronto in succession, and produced a yield of 400 bushels per acre of potatoes, handsome in appearance and perfect in quality; and if the thousands of readers of this valuable distributor of reliable information who are engaged in the peaceful art of agriculture in every province and district of this vast Dominion receive a benefit therefrom, I, their humble servant, will be amply rewarded.

The soil best adapted for potatoes is a sandy loam, with a gentle slope to the south or east, with a good natural drainage, but as we cannot always choose location or soil, we endeavor by tilling, manuring, and by exposing the soil to the pulverizing influence of the atmosphere to improve its texture, and thereby its fertility. I have obtained the best results from planting after peas, having been so the previous season, or plowing under a second growth of clover. Carefully avoid planting potatoes on land where a series of grain crops have succeeded each other—especially wheat or oats. If pea stubble is used spread evenly in the fall thirty loads of good barnyard manure to the acre; plow two inches deeper than old furrows; gather lands up in center, opening up all water furrows to drain all surface water during winter. If clover sod is used turn down with a light furrow when full grown, but before clover gets hard spread evenly fifteen loads of good barnyard manure per acre; in this case, manuring may be done any time before winter. If manure cannot be had in the fall, spring manuring will answer admirably. Do not fear scab if fresh land is used as directed.

About May 10th give turn with spring-tooth or disk harrow; then cross plow, harrow again, plow again, and finish with light harrow. By this process, the manure is thoroughly incorporated with the soil, which is now deep and mellow and in good condition to receive the seed. In planting, take a common plow with a light marker attached, begin on one side of piece, throwing out furrows right and left, thirty inches apart for Early Dwarf varieties and thirty-three inches for main crop or late varieties; plant sets one foot apart in rows, covering from three to four inches deep. In covering, I use a homemade invention, something like a snowplow with handles, drawn by one horse, and fitted with a cultivator share in center, which leaves a shallow furrow between the rows, the rows being opened with a single plow and thrown right and left. A single

turn covers two rows and leaves a furrow to drain surface water, as we generally get heavy rains at this season, which if allowed to stand on land would destroy the seed. For planting, select well-shaped, large, but not overgrown or deformed tubers—as like begets like; cut to single eye sets, and plant as soon as convenient after being cut. Sprinkle with land plaster, which will prevent pieces from adhering to each other, or heating, if not immediately planted. There is no crop that is so much benefited by the introduction of fresh new seed as the potato. It seems to take on new life and flourish wonderfully if the change is to well-selected stock grown as far north as the variety will mature. This is a point on which the most prominent authorities of the present day universally agree. Plant between May 10th and 20th. It is not uncommon, at least in northern Ontario, to get a few light frosts about June 1st. By planting at date named, the young plants will invariably escape injury, and at the same time have the full advantage of June and July—the period when potatoes do nearly all their growing. As soon as the young plants are three inches high start the cultivator, running within three inches on either side of rows; then hand-hoe carefully among the plants—no implement yet invented can take its place at this particular period. Continue running cultivator every week for five weeks, then hill up, using only the cultivator with mouldboards attached, which leaves broad, low ridges inclining inward at top, thus diverting rains to roots of plants, and forming a large, loose bank for the young tubers. Avoid using a plow to hill up with, as it leaves ridges too high and narrow and buries the young tubers now forming too deep, for well-formed tubers invariably lie near the surface. Never dig potatoes intended for spring and winter use until the tops die down. As to varieties for early marketing, I would recommend the following varieties in the order named: First—Early Ohio, Burpee's Extra Early, Early Norther; for second early and main crop—Rose of the North, Burnaby King, Pearl of Savoy; and for late keeping and large crop—American Wonder, Empire State. These have all done well here, but other kinds may suit other localities. I have tried all new varieties for the past ten years, besides growing seedlings, some of which promise to be better than anything yet introduced. Keep young plants free from bugs, for potatoes do not thrive without their leaves. Would be pleased to hear through the ADVOCATE at harvest time how its readers have succeeded, varieties grown and yields produced.

Simcoe Co., Ont.

WM. NAISMITH.

## Chaffing Straw While Threshing.

To the Editor FARMER'S ADVOCATE:

SIR,—In the letter over my name in the issue of April 15th, on "Cutting and Threshing in One Operation," it was a slight mistake on your part to have changed the wording, although you meant well. The common straw-cutting box (not "ensi-



PAIR OF CARRIAGE HORSES.

EXHIBITED BY ROBERT BEITH, M. P., BOWMANVILLE, ONT.

lage cutters," which are always understood by farmers to be the cylinder cutter) answers the purpose well. The ensilage cutters takes too much power to drive, although they might be a success if driven by a 16 or 18 horse power engine. A 12 or 14 horse power will drive the other style cutting box and thresher. Again, possibly it is wise to have two sets of knives, but really not at all for the purpose of replacing the dull knives, for two knives can be sharpened on the box while you are changing one. Possibly it would be wise to put on fresh ground knives every morning. I should have said that \$12 is the charge here while the days are long, but \$10 is charged in the winter time.

Middlesex Co., Ont.

JOHN B. SHIPLEY.