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## Inquiries and Answers

Readers of the paper are invited to submit questions on any phase of agriculture.

### Growing Roots

Which kind of root is most profitable for feeding dairy cattle and pigs—turnips, rutabagas or sugar beets? About how many bushels of roots would be required to feed a head of cattle and 10 pigs, feeding one or two feeds a day? How many acres of roots would have to be sown to provide sufficient for thirty months' stock, estimating on an ordinary crop? What is the best way of sowing, broadcast or drilled? Could the rows be arranged so as to cultivate with horse hoes, or to plant with the spring cultivator with a team? Do you get better results from frequent cultivation? How much frost will roots stand without injury?—F. L. L. Leudesdome, Ont.

Mangles are more preferable for dairy cattle than either of the feeds named. Turnips are good, but have a tendency to taint the milk, hence it is dangerous to use them. For hogs these kinds of roots have about equal value. Sugar beets contain slightly more dry matter than mangles or rutabagas, also a slightly higher percentage of carbohydrates. Where mangles are being produced for dairy cattle, however, it is hardly advisable to use turnips or sugar beets when only a few legs are being fed.

Mangles are fed to cows at the rate of 25 to 40 pounds a day. Taking the outside figure—40 pounds—25 cows would require 1,000 pounds a day. Twenty pounds a day for legs is a large amount, but taking this estimate it would require 200 pounds a day for the ten hogs, 1,200 pounds, therefore, or about 30 bushels, would be required for the stock each day, and if fed 200 days—4,000 bushels would be required.

An average crop of roots, rows being sown about 25 or 32 inches apart, and the plants thinned out to 10 to 12 inches apart in the rows, would produce approximately 20 tons of roots to the acre. To make allowance, therefore, for the seasons, three or four acres of roots would provide ample feed for your stock.

If it is desired to get a good crop of roots, and, at the same time cultivate the land, so as to kill weeds, and prepare it for future crops, it is essential to sow in drills. By sowing broadcast cultivation cannot be followed; a smaller crop is assured, the roots themselves are small, and it requires more labor to handle them.

Rows can be planted at any width to allow for cultivation. If it is intended to cultivate with a horse hoe, 18 to 24 inches apart is wide enough. If it is desired to use a spring tooth cultivator with team, which would facilitate considerable work, we would advise sowing from 28 to 36 inches apart.

The more cultivation that is given to this crop, the greater will be the production. Cultivation should be followed with a view to eradicate the weeds, as well as increasing crop production. It should be the aim to cultivate after every rain, in order to break the crust, create a mulch, and thus conserve the soil moisture.

Mangles, if they are to be stored for any length of time, will not stand a very hard frost. A hard frost affects them, causing them to rot in a very short time. Turnips, on the other hand, will stand considerable frost without injury.

### Questions About Alfalfa

What kind of grain is best to seed down with alfalfa clover? What time of the year is best to seed down? How does it do on sandy soil?—G. W. B., Ont.

In the Western States, where alfalfa has been grown for many years, the practice generally adopted is to seed with barley and peas. Some growers in Ontario have had good success by seeding with barley, or some spring grain. Others report good results with alfalfa and peas, though as to this we are not prepared to recommend the latter plan. Whether a nurse crop is used or not, it will be a safe plan to inoculate the alfalfa seed before sowing with the bacteria suitable for its growth. These can be had by applying to the Bacteriological Laboratory, Ontario Agricultural College, Guelph, and will be sent with full instructions as to their use.

The best authorities on alfalfa do not seem to be convinced as to which is better, fall or spring seeding. Growers in the United States seem to favor fall seeding, especially when an nurse crop is grown, as it gives the plant a better chance. In Canada it will, perhaps, be better to practice spring seeding, as things considered, that is proper cultivation, etc., alfalfa will do well on sandy land. There are only two kinds of soil on which alfalfa will not flourish if given a chance. These are soils constantly wet, and acidic soils.

### Umbilical Hernia.

I have a calf eight months old that has a small rupture about the size of a button just at the end of the sheath. This has been much larger but was kept shut by the bandage has now been taken off. What should I do with it?—D. T., Simcoe Co., Ont.

As the rupture or hernia has advanced in reducing the size, I advise its continuance. When a truss will effect a cure it is much the better treatment. When a truss will not cure an operation is a veterinary necessity. There are many operations for this trouble, the most common one being the application of a clamp, or skewers, but an amateur could not operate with safety.

### Age to Castrate.

At what age should colts be castrated?—D. T., Simcoe Co., Ont.

Opinions differ on this point. The younger the less danger, (provided, of course, he is healthy and normal), and of course the less the loss, should untoward results occur. In my opinion the better time is between two days and two weeks old. If not then, at about a year old, although operating in that kind of weather, when he can be turned out on grass. If a person wants his gelding to have the masculine appearance of a stallion, he should not operate until he is two or three years old.

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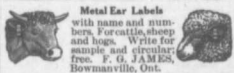
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