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FARM AND DAIRY



& RURAL HOME

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Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham

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The Agricultural Value of Sweet Clover and Its Culture

IS sweet clover a good crop for the average Ontario farm? Many readers of Farm and Dairy have been asking this question. Seedsmen report an unprecedented demand for sweet clover seed. Agricultural Colleges and Experimental Farms receive more inquiries about this plant than any other farm crop. Sweet clover is to-day receiving the enthusiastic attention that a few years ago was bestowed on alfalfa. The alfalfa crop has now passed the experimental stage, and is one of our staples. Is sweet clover liable to do likewise? We believe that it is. Dismissing the agricultural value of the plant, H. L. Fulmer, B.S.A., who has given the subject more careful study than any other Canadian scientist, says in O. A. C. Bulletin 235:

"After a general survey of the whole field wherein sweet clover could serve as a farm crop we cannot but conclude that this plant gives much promise of value. It is a plant which is widely distributed and is very adaptable. By reference to publications on the subject, by correspondence, by conversation with different farmers and men engaged in agricultural work, and by personal observation and experience we find this plant to be growing in all countries and on all types of soil. Furthermore, in addition to its great adaptability, we find it actually to have found a place on the farm in many foreign countries and in a few sections in our own country. Not only has this usefulness been found but a knowledge of this fact is spreading. At this time in the province of Ontario, quite a number of farmers are trying out this new crop on their own farms in order to demonstrate to themselves whether or not it has any virtue. It is beyond the experimental stage with some farmers already, and these, who have now grown it on their farms for several seasons, are convinced and are enthusiastic for its future. Soon there will be a more widespread knowledge concerning the agricultural value of this plant.

As a Soil Improver.

"Up to date sweet clover seems to have immense value as a soil improver and heretofore, perhaps, lies its main virtue. It will establish itself on very poor soils, soils which are naturally poor or which have become so by a system of exhaustive cropping or otherwise, and on soils which would otherwise produce practically no growth, such as alkali soil and blow sand, and give surprising yields. Not only does it give growth where otherwise there would practically be none, but, what is just as important, it eventually puts these same soils into such an improved state of fertility and tilth that other crops which before were impossible can then be successfully produced. This will be of inestimable value to our

worn out or impoverished lands and to our bad lands sections.

"But, in addition to its green manuring value, much value is attached to sweet clover as a pasture and hay crop. This is of particular value in very dry climates or seasons or to those sections of low fertility, for here, otherwise, practically no provender would be available and nothing would exist but a barren waste. Furthermore, there are other values attached, particularly that as a bee pasture or honey plant."

A Farmer's Evidence.

Mr. T. M. Caton, Cherry Valley, Ont., gives his experience with sweet clover as follows: "I can give you a little more information about sweet clover than last year. It grew well, and averaged between three and four tons to the acre. We sowed 5 lbs. on one-fifth of an acre, and off that

other plant will be found growing on as poor soils as it will.

"Our animals will not refuse to eat it. In fact, when I turned our cattle in on it last year after the grain crop was harvested they ate it in preference to the abundance of June grass that was growing along the fences and in a waste portion of the field. However, there may be some animals that would require a little education to make them eat it, but the effort would be small on the part of the teacher. I believe that it is as good a feed as is alfalfa, but cannot speak definitely on that point. It does taint the milk and butter, but the taint is anything but offensive. The taint is sweet and pleasant and will leave the butter after it has been made about three days.

"I have seeded with the white variety and much prefer it to the yellow."

Its Value Per Acre.

The value of the crop can be gauged by the table given on this page. We quote from Mr. Fulmer again: "From the table it will be seen that sweet clover furnishes a much larger amount of animal nutrients per acre at first cutting than alfalfa or the other legumes, and a very much greater quantity than does timothy. If we wish to take into consideration all the growth for the year, then sweet clover, red clover and alsike should be credited with about one-half more of the nutrients. This is assuming that the second cutting will give on the average 50 per cent. of the weight of material in the first cutting. Alfalfa will give a second and third cutting, which, together, usually amounts to about three-quarters of the first. But even if we add 50 per cent to the amount of each constituent derived from the first cutting of sweet clover, red clover and alsike, and 75 per cent. to that got from the first cutting of alfalfa, the sweet clover still furnishes a greater quantity of nourishment per acre than any one of the other crops included in the comparison."

The Culture of Sweet Clover.

"The most essential thing to observe in seeding sweet clover is to have the seed bed thoroughly compacted, with just sufficient loose soil on top to allow of the seed being properly covered. It may be sown in the spring, alone or along with a nurse crop, much like red clover, or in late summer or early fall, like alfalfa. Of the hulled seed, about 20 to 25 pounds per acre should be used, and of the unhulled seed about five pounds more. Much of the seed may not germinate the same year on account of the hard seed coats, hence a generous application of seed is advisable. When a nurse crop is used the latter should not be sown too thickly, else it will tend to smother

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SWEET CLOVER COMPARED WITH OTHER CLOVERS

Kind of Crop.	Yield of Hay, lbs., per Acre	Protein, lbs., per Acre	Fuel Value Cals. per Acre
1. Sweet clover, first cutting.....	9,170	1,320	14,535,000
2. Alfalfa, first cutting.....	4,295	739	6,892,000
3. Alfalfa, first cutting.....	5,160	883	8,274,000
4. Red Clover.....	4,000	563	6,628,000
5. Alsike.....	4,000	511	6,359,500
6. Timothy.....	4,500	286	7,473,500

fifth of an acre cut three-quarters of a ton of dry hay and have been feeding a horse on it. The horse is working hard every day and is in good condition, feeding off the hay from that plot since the 6th of June.

"All we have is now from two to three feet high and white with blossom; we expect a nice bunch of seed. I sowed three acres this year and will sow fifteen acres next spring. It will grow where alfalfa is a failure. I sowed the larger plot where the year before I had sowed \$22.00 worth of alfalfa and that was no good, and the sweet clover was three feet high in June. All stock will eat it readily."

Grey County Experience.

Thomas H. Binnie, secretary of the Grey County Board of Agriculture, writes of his experience in laudatory terms: "I do not consider it a bad or noxious weed. Even if it will not all die on plowing the roots will be taking some nitrogen from the air and that is what we want it to do. There is one way that it can be killed effectually, and that is by cutting in June with the mower or other implement which will cut it close to the ground. This I have observed time and again when we got the seed in other grass seed.

"It will grow on all kinds and conditions of soil, but seems to grow best on well-drained loam. No