

by the winter snow. The best plan is to cut at a height of about 5 inches from the ground in September and then leave untouched for the rest of the season.

FEEDING VALUE.

As a feed for stock alfalfa may be used in several ways. For the exact composition and comparative feeding value see Part II.

Pasture.—It is frequently used as pasture and judging by our experiments here has no equal among forage plants for palatability, grazing capacity per acre and food value. All classes of live stock soon learn to like it and thrive upon it. As a pasture for dairy cows it cannot be surpassed. Sheep thrive upon it exceedingly. Swine are very fond of it and do well upon it as a sole feed. Horses eat it with avidity and improve in condition upon such pasture. In a trial here with dairy cows it seemed to be worth much more than any of the grasses or clovers tested at the same time (red clover, alsike clover, timothy, bromegrass and orchard grass).

It should not, however, be pastured too closely at any time. Such treatment would be particularly dangerous the second season. Sheep allowed to crop it closely do very great injury. Another disadvantage is that the trampling of the stock hardens the soil and slowly but surely kills out the catch.

Precautions must be taken too, where it is grazed, to prevent injury to the animals grazing. Cattle and sheep sometimes bloat when allowed to eat it wet with rain or dew. Such stock should be turned in only when the alfalfa is dry or when they have just had a feed of some other forage. Bloating occurs very seldom, but it occurs occasionally, and it is well to avoid any possibility of loss in this way. Hogs and horses are not subject to bloat.

As Ensilage.—Mixed with corn or red clover it is exceedingly valuable for making into ensilage. We have never tried it as an ensilage plant by itself. It has been so used, however, elsewhere and has given good results. In districts where wet weather usually prevails in June the conversion of the first cutting into ensilage would be the most practical way of saving the crop in palatable and nutritious form.

As Soiling Crop.—It is as a soiling crop for dairy cattle that alfalfa is particularly valuable. It makes a very rapid early spring growth and is usually ready to cut before any other green feed. It may be cut for this purpose before any blossoms appear, and will thus admit of being cut about four times in the season in this district. No other soiling crop approaches it in value as a feed for milk production.

It may also be used as a soiling crop for pigs. Where so used it may be expected to reduce the cost of producing pork by from 25 to 50 per cent in comparison with pigs fed on grain alone.

To give the best results when used for this purpose it should be cut before any blossoms appear, even earlier than when cut to feed to cows. Feed all the pigs will eat up clean. It should be fed both morning and evening.

To summarize, alfalfa used as a soiling crop may be expected to produce from 15 to 24 tons per acre of the finest kind of green forage, most palatable, very nutritious and suitable for horses, cattle, sheep and swine.

As Hay.—It is a hay crop that alfalfa has won fame and place in British Columbia and the United States, and it is undoubtedly possible of extensive use for that purpose wherever it can be successfully grown in Canada. Under favourable soil and weather conditions it may be expected to produce from five to six tons of hay to the acre per annum.

Alfalfa hay, well made, has no equal as a dry feed for live stock, but no other kind of hay requires as much care, skill and experience or information in the making as does alfalfa.

As the plant begins to blossom its stems begin to turn woody. Plants far advanced in the blossoming stage have very woody stems, easily lose their leaves and then make unpalatable, indigestible and generally inferior hay.

It is evident, therefore, that to secure good results the crop should be cut at an early stage. Experience has shown the beginning of the blossoming stage to be the best time. The very best time is when about 10 per cent of the blossoms are in