

The writer has never heard of injurious results from bloating with any kind of farm stock pasturing on Alfalfa, providing it is used in combination with grasses and clovers in the form of a permanent pasture.

In each of five or six years, seed has been produced at the College from either the first or the second cuttings of Alfalfa. The results have been about the same from each cutting. The production of seed has been only fairly satisfactory at the College, but in some parts of Ontario Alfalfa seed growing is becoming an important industry.

No extensive experimental work has been conducted at the College in the production of Alfalfa silage, but a few reports have been received, stating that the crop can be used in that way with fair satisfaction.

Alfalfa certainly produces a large amount of exceedingly valuable material to use as a green manure. In the majority of cases, however, it is probably better to use the crop for feeding purposes, and then to save the manure and return it to the land in that form rather than to plow under the whole crop.

It is quite probable that there are many crops more suitable for using as a cover crop in orchards than Alfalfa. The growth of the plants is upright and rather open, and the roots penetrate so deeply into the soil that they tend to rob the subsoil of its fertility and of its moisture, both of which are so essential to the best welfare of the trees.

QUALITY OF ALFALFA AS A FEED.

In the years 1897 and 1898 Alfalfa was grown in our Experimental Department, and in comparison with red clover and with timothy both the chemical composition and the digestibility of the crops were determined in the Chemical Department of the College. The results of these investigations were given in detail in the Ontario Agricultural College Bulletin III, which was issued in the year 1900. The following table gives the comparative amounts of digestible constituents in one ton of hay of each of the three crops:

Constituents.	Alfalfa. (lbs.)	Red Clover. (lbs.)	Timothy. (lbs.)
Prot. in.....	192.2	141.0	48.7
Fat.....	30.0	29.4	16.2
Nitrogen Free Extract....	496.6	587.4	528.4
Fibre.....	205.5	209.4	306.9

The figures here presented are quite suggestive and are worthy of careful study.

In "Farmers' Bulletin Number 215," issued by the Department of Agriculture of the United States in 1905, we find in the investigations there quoted the digestible protein to be 10.44 per cent. for Alfalfa hay and 6.8 per cent. for red clover hay. These figures would be equal to