

As a forage crop for Saskatchewan, Sweet Clover has several qualifications that make it worthy of consideration.

In the first place it is a legume, and, while not a true clover, it possesses the same advantage as Red Clover and Alfalfa for obtaining nitrogen from the air. This enables it to thrive on soil poor in this constituent and at the same time contribute liberally to its nitrogen and organic content. This accounts for its world wide fame as a renovator and rebuilder of depleted soils.

Its leguminous character also accounts for the high percentage of digestible nutrients that Sweet Clover has been found to contain, making it practically equal to Red Clover and Alfalfa in feeding value.

Sweet Clover is a biennial plant which is another obvious advantage under semi-arid conditions such as are found over the prairie portion of Saskatchewan. As a biennial it is well adapted to short rotations and therefore will not interfere, as would a perennial crop, with plans for the frequent storing of moisture in the land. Since it never survives the second winter there seems little fear that it may become a weed, especially on land that is ploughed once a year. It is almost sure, however, to persist in waste places wherever it is grown to any extent.

The large fleshy roots of Sweet Clover decay very rapidly and completely, making ploughing a much easier matter than the ploughing of alfalfa sod. The decomposed condition of the roots render them easily incorporated into the soil, and the subsoil is made porous, thus affording better aeration and drainage.

Sweet Clover appears to be a relatively hardy legume in Saskatchewan. It has now been grown on the College of Agriculture Experimental Plots for seven years. During this time there has been little winter killing until last season (1917-18) when some of the plots suffered considerably. Last winter was, however, the most severe on clovers and alfalfa that we have experienced, although a few of the varieties and strains that we have under investigation did not suffer in the least.

It is also claimed and fairly well substantiated that Sweet Clover is more resistant to alkali than any other of our forage plants. While this is probably true, we have not yet been able to verify this claim, but there is no doubt a reasonable limit to the degree of alkalinity that Sweet Clover will endure.

#### *Kinds of Sweet Clover.*

There are two leading kinds of Sweet Clover: the white-flowering species (*Melilotus alba*) and the yellow-flowering species (*Melilotus officinalis*).

The common white Sweet Clover is a tall growing biennial plant belonging to the same family as Alfalfa, Red Clover and the Field Pea. The first season's growth is leafy with relatively fine stems and will usually reach a height of twelve to twenty-four inches. The second season's growth begins from crown buds which have been formed the previous fall just beneath the surface of the ground. This growth is somewhat more stemmy and less leafy than that of the first season and progresses very rapidly under favourable conditions. During the second season it makes a growth of four to eight feet, produces numerous small white flowers on long loose racemes and eventually dies with the ripening of