COMMON ALFALFA
Has a taproot, narrow crown, fairly wide leaves and erect stems. The flowers are purple and seedpods have three to four coils. As it is not winter hardy, a harder strain of common alfalfa known as Flemish alfalfa has been introduced. Flemish Alfalfas recover rapidly after cutting, have exceptional vigour, mature early and are moderately winter hardy.

SIBERIAN ALFALFA
Has finer, less upright stems, small narrower leaves, widely branching roots and a deep set crown. Flowers are yellow and the pods are sickle shaped. Very cold hardy.

VARIEGATED ALFALFA
Has a branching root system and generally good cold and drought tolerance. Flower colour ranges from purple through blue and yellow to white and the pods have from one and a half to three coils.

DESCRIPTION
Alfalfa has four general types of root systems: tap, branch, rhizomatous and creeping. A rhizomatous root system enables the plant to spread from the crown by horizontal stems and develops very broad crowns. Creeping rooted plants develop horizontal rootstalks from the main roots. Shoots arising from the rootstalks are capable of becoming independent plants. Rhizomatous and creeping rooted plants usually are more persistent and tolerate adverse climatic conditions better than tap and branch rooted plants. The ability of the roots to obtain moisture and nutrients from deep in the soil makes alfalfa an especially useful forage crop during periods of drought.

ADAPTATION
Does best on deep loam soils with high lime content. Relatively drought tolerant but will respond well to irrigation and produces excellent hay. Tolerates some alkalinity and has fair salt tolerance. As a nitrogen fixing plant, alfalfa needs little nitrogen from fertilization. However, legumes such as alfalfa require relatively large amount of phosphorus, potassium and sulphur.

LIMITATIONS
Very sensitive to soil acidity. Exact level of acidity that Alfalfa can tolerate is related to other factors including the level of nutrients, presence of other minerals such as aluminum and magnesium and drainage. It is intolerant of flooding, waterlogging or poor internal soil drainage during the growing season. It will withstand short periods of flooding and water logging for up to two weeks before growth begins in spring. The plants are sensitive to depletion of carbohydrates in the roots. Alfalfa should not be cut twice without having an opportunity to store root and crown food reserves during the interval between. If fall use is not correctly timed, the regrowth that occurs will cause a depletion of food reserves. Alfalfa must reach a height of about 25 cm or the bud stage, to accumulate enough reserves to be vigorous. If regrowth can be utilized late enough in the fall just before or after killing frosts so that little or no additional growth occurs, the plants will still begin winter with high reserves of carbohydrates. Winter hardiness should not be a problem but is aggravated by poor choice of varieties, drought that dries the soil and plants before winter, warm autumn weather that gives a flush of growth at the expense of root reserves just before freeze up, low soil temperatures caused by cold winters or lack of snow cover, surface icing, exceptionally long winters that outlast the dormant period, waterlogged soil conditions, disease and other factors that decrease vigour.

USE FOR HAY
It is an excellent hay crop. The variety selected should combine adequate hardiness with the best possible annual yield.

USE FOR PASTURE
Alfalfa is quite palatable and withstands grazing fairly well provided it is not overgrazed. Varieties with creeping roots generally withstand grazing pressure better than others. By including at least half grass in the pasture mixture the risk of bloat is greatly decreased. Also, the bloat hazard is diminished if grazing is delayed until after the bloom stage.