

ALFALFA: Alfalfa is the well known "Queen of Forages". It is adapted to a wide range of soils which must be well drained. Tolerates some soil alkalinity. Dryland and irrigated varieties exist, as well as varieties for grazing (with creeping growth forms) or haying.

Use for Hay: Cut at the 1/10th bloom stage to foster stand longevities of ten years or more. Weeds must be controlled to also foster stand life. Three cuttings can be expected on irrigated land, one on dryland. Allow 30 days of regrowth after the last cutting before the first killing frost from 26°F temperature. Alfalfa weevil can be a seriously destructive insect pest on growth in May.

Use for Pasture: Alfalfa is highly desired by all livestock. Do not graze closer than four to six inches to the ground. It will not persist with moderate to heavy grazing unless rest periods occur. In cattle and horses, alfalfa can cause bloat which results from gases trapped in the main stomach. If left untreated it will cause death. To decrease bloat hazard, use the product "Bloat-Guard", delay grazing until after the bloom stage, or first turn full-fed animals into fields at mid-day. Or keep alfalfa to less than 50 percent of a grass/alfalfa stand and monitor animal grazing. After a killing frost and leaves are fully wilted, standing alfalfa can be grazed safely.

Varieties: 'Vernal', 'Ladak', 'Ranger', 'Spredor 2', 'Spredor 3', 'Rhozoma', and 'Rambler'.

CLOVER, WHITE: This legume spreads via stolons. It is rather shallow-rooted and needs moisture to persist. Prefers well-drained soils. Leaves usually have V-shaped white marks in the middle. Not tolerant of saline or alkaline soils (a pH of 5 to 6 is best). Tolerates summer heat. Inoculate seed with appropriate rhizobia for best growth.

Ladino: The "giant" form of white clover, grows two to four times taller than the intermediate type. Good for hay which is low in stems and high in protein and digestibility. Not tolerant of low grazing. Leave 3-inch stubble with grass (two-inches with rapidly regrowing orchardgrass). Allow regrowth to eight inches. Seed at one pound per acre with grass to keep bloat hazard low. Will winter kill somewhat in dry soils. Requires high soil phosphorus. 'Pilgrim' and 'Merit' varieties are winter hardy.

Intermediate: Also know as common or White Dutch. Height can vary between tall or small. Tends to persist only 2 to 3 years. 'Grassland Huia' is an intermediate variety.

Small Type: Also known as low-growing or wild type. Commonly found in lawns. Well-suited to pastures; poor for hay. Persists well under heavy and continuous grazing and regrows rapidly. Grows fairly early in spring. Summer growth can be fair. Bloat hazard is similar to that with alfalfa. Will be shaded out by tall grasses. Not a heavy producer. 'Kent Wild' is a variety.

MILKVETCH, CICER: Cicer milkvetch is a native of Europe. It is a very long-lived perennial with vigorous, creeping rhizomes. This legume is very tolerant of soil alkalinity (to pH of 9.8) and is moderately tolerant to acidity and salinity. Disease and insect problems are uncommon. Stems are upright when young, but bend over with increasing height. Stem length can reach four to ten feet.

Flowers are pale yellow to white. Adapted to well-drained soil textures and subirrigated conditions with water at a 3- to 6-foot depth. Has some drought tolerance. Adapted to dryland areas receiving 16" or more precipitation. Responds very well to irrigation. Good winter hardiness.

A limitation is that seedlings are weak and require two to three years to establish. Seed in alternate rows with a cool-season grass to decrease competition from grasses. Can be so aggressive as to comprise 80 percent of a pasture after a few years. Seed must be scarified adequately to insure germination and must be inoculated with proper bacteria before seeding.

Use for Hay: Cicer milkvetch is well-suited for hay. When seeded in alternate rows with grass, winrows after cutting dry better. Crimping also helps dry-down. At harvest cicer's moisture content is four to eight percent greater than alfalfa and sainfoin. Leaf losses during baling are low and plants have a 40 percent higher leaf:stem ratio than alfalfa. These factors give cicer comparable nutritive value to alfalfa. However, cicer hay is not as desired by livestock when compared to other legumes.

Use for Pasture: Cicer is very tolerant of grazing and does not cause bloat in grazing animals. However, cicer is not eaten readily by livestock. Heavy grazing pressure is needed to ensure grazing use. It is reported to have caused some photosensitization problems in sheep. Cicer recovers well from grazing as new growth is stimulated in buds of rhizomes. Graze carefully towards end of the establishment year, and during the second year. Graze to a height similar to alfalfa.

Varieties: 'Windsor', 'Monarch', 'Lutana'