

Birdsfoot Trefoil Seed

Lotus corniculatus (Leguminosae)

Fast Facts: Number of Growers: less than 10
Acres in Washington: less than 100
Percent of U.S. Acreage: less than 1%

Description Of Crop:

Birdsfoot trefoil is a long-lived herbaceous, perennial legume. Most cultivars are erect and grow to heights of 2-3 ft. It is similar in appearance to some clovers. The flowers develop into small pea-like pods which extend from the stalk and give the appearance of “birds feet”. The plant has five leaflets but the central three are above the others hence the name “trefoil” which translates into “three leaves”. This plant can become weedy or invasive in some regions or habitats. Birdsfoot trefoil can be used for erosion control, livestock and wildlife forage. It can be seeded with grass and grazed as a non-bloating legume.

As a forage legume, birdsfoot trefoil adapts well to many different types of soil from sandy to clay. It should be seeded with grasses for optimum forage production. Its nutritive value equals alfalfa and there is no problem from bloat even when pure stands are grazed. However when grown on land suitable for alfalfa, it will produce considerable less forage. This is why it is best used in areas that are not suitable for alfalfa production. When used for grazing, it is best in a rotational grazing system.

Birdsfoot trefoil should be allowed to grow to maturity every third year or so to produce a seed crop. Pure stands are best for seed production. Weak seedling vigor and the variability in yield are problems when establishing a stand. Birdsfoot trefoil has a slow growth rate and small seed size. Planting seed above a band of fertilizer can enhance vigor. Flowering should occur in late June and seed should mature during August. The decision as to when to harvest is difficult because of its indeterminate growth habit. However, harvesting should be done when the majority of the seed pods are ripe and turning brown. Too dry weather at harvest time causes severe shattering. Common methods for harvesting seed involve cutting and swathing.

Key pests:

Insects are the main pest in birdsfoot trefoil seed production. These include lambsquarter, nightshades, Canada thistle, and pigweed. Diseases include crown and root rots. Insect pests are the chalcid seed wasps, aphids and grasshoppers.

Key pesticides:

Weeds are controlled with MCPA and 2,4-D. Growers should chose disease resistant varieties. There are no insecticides for chalcids. Aphids and grasshoppers are controlled with Pirimor.

Critical pest

Control issues:

It is difficult to separate the weed seed from the trefoil seed. So it is critical to keep weeds out of the crop. Currently there are no labeled residual herbicides for birdsfoot trefoil. Another problem that growers face is when to harvest trefoil. The crop doesn't flower uniformly and as a result seed shatter is a problem. The use of chemical desiccants could offset this problem. The weather and crop mass dictate a swath and harvest regime which also causes an enormous amount of shatter loss.

Since birdsfoot trefoil generally requires honeybees or bumble bees for pollination, care should be taking when spraying. Birdsfoot trefoil should be treated with the appropriate Rhizobium bacteria that will fix atmospheric nitrogen.

Expert Contacts: Kirk Sanger
Simplot Farms
Moses Lake, Wa
509 750 8016

Location

Of production: Grant and Adams counties

ARKive



© Duncan McEwan / naturepl.com



Birdsfoot Trefoil Seed

Birdsfoot Trefoil Seed Production in Washington State



Area of Birdsfoot Trefoil Seed Production