

## MANAGING FIELD PEAS ORGANICALLY

We sell two different types of field peas at Lakeview. Our grain peas are a semi-leafless type with a high proportion of pods in relation to total plant mass that can be used for either grain (feed or food) or forage. Our forage peas are tall, large plants that can grow more than 3 feet tall and are intended for forage or animal feed only. Forage peas do best in combination with a small grain like oats and barley for support.

Pods of both kinds of peas can be picked green and cooked like garden peas. They have good pea flavor when young but pods are smaller and not as sweet or tender as garden peas. The tendrils are also edible and are sold in some ethnic markets as a vegetable.

Peas do best in cool, dry conditions. Plant peas as early as possible, as soon as the upper inch of soil is over 40°F. Plant them into moisture, about 1-2 inches deep. It is very important to prepare a firm fine seedbed. Plant peas on well drained soil - avoid overly wet ground.

Unlike soybeans, pea yield can be very limited by seeding rate or poor emergence. When seeding semi-leafless peas alone to harvest for grain, plant at least 150#/acre. When planting for forage or as a grain mixture, use at least 100#/acre plus 2 bushels of oats and/or barley. Seed 35% less forage peas. Drill in 8" rows or less. Seed beds should be firm and well-drained. If possible, roll the land after planting to ensure good seed contact by pulling a roller behind the drill.

Always use Rhizobium inoculant when seeding peas on ground that hasn't been in peas in 5 years. Peas are high users of nitrogen and a well inoculated crop will return 1-1.25# N/A to the soil for each bushel produced. As with planting any legume seed, always use the appropriate inoculant strain. There are 4 major types of Rhizobium inoculant – pea/vetch, alfalfa/clover, soybean, and dry bean/snap bean. Using the wrong strain for the crop may result in little inoculation effect.

Weed control is a must. Peas emerge as a spike in 40-45°F soil temperature, growing vigorously to a height of 4-5". They then slow their growth and develop roots and nodules. It is during this time of apparent dormancy (2-4 weeks) that weeds will begin to emerge. Once peas have developed sufficient root mass, they will start producing massive vegetative growth. Weeding is suggested prior to this rapid growth stage, as field operations after this stage will damage the plants.

White Mold and Powdery Mildew are the most common disease problems. Good residue control, careful crop rotations and planting in well-drained soils will reduce susceptibility. There is no known susceptibility to Asian Soybean Rust or Soybean Cyst nematode.

Well-nodulated peas need little nitrogen fertilizer, but they do require a soil well-supplied with other nutrients Peas require slightly higher levels of phosphorous and potash than soybeans. Manure or compost mixed with gypsum is a good way to deliver adequate levels of nitrogen, phosphorus, calcium and sulfur unless soil tests indicate that all these nutrients are already high enough. Application of lime is suggested on fields with a pH lower than 6.2.

Peas, especially when grown with a small grain like barley or oats, make a very high quality forage, and can be baled either dry, or wet as baleage. For grain, harvest peas with any regular combine. Pea stems break down more easily than soybeans, therefore less power is required, especially after ripe. On the combine, open the concaves, speed up the cylinder and turn up the air. Harvested grain peas and small grains can be used directly as an animal feed, or can be split by running through a seed cleaner. Dry field peas tend to test about 22-24% protein, a grain mixture with barley or oats usually will test about 17-18% protein, depending on the percentage of peas.

