Plant Portrait - *Caragana arborescens* Pea Tree

The Siberian pea tree is a deciduous shrub that can grow up to 6 metres tall but in practice seldom exceeds about 3 metres. It produces a lentil-size edible seed that can be used in all the ways that lentils are used and has a great potential as a perennial legume in Britain.

A very undemanding plant, it succeeds in most well-drained soils, preferring full sun and light sandy dry or well-drained conditions. It tolerates very alkaline soils and will also do well in very poor conditions and on marginal land. This is because it has a symbiotic relationship with certain soil bacteria, these bacteria form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant but some can also be used by other plants growing nearby. Thus this is a very good companion plant in woodland and other integrated plantings.

A very cold-tolerant plant, it can withstand temperatures down to about -30°c. It prefers a continental climate with long hot summers and cold fairly dry winters, and does not grow so well in areas that do not have very cold winters. Thus it grows and fruits very well in the eastern half of the country, even in northern areas, though it does not do so well in the wetter west. The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun.

The Siberian pea shrub has an excellent potential to become a staple food crop. The seed is nutritious and wholesome, although rather small it is often very freely borne and is easily harvested. Indeed, once the plant is established, harvesting is about the only work you will ever have to do with it! This species usually crops very well in Eastern Britain, the pods containing 4 - 6 seeds are produced in small clumps and are easy to harvest. The flavour is fairly bland, which is an advantage in staple foods since they are then very versatile and can be used in many ways according to which flavourings you add to them. We use them in all the ways that we use lentils, they can also be ground into a powder and used as a protein-enhancing
addition to cereal flours. Indeed, the seeds contain up to 36% protein as well as about 12% fats and reasonable quantities of carbohydrate.

The Siberian Pea tree is sometimes grown as a hedge, it is fairly wind-resistant and so can be used to provide some shelter - though it is fairly bare in the winter and will not provide so much shelter at this time. The plant has an extensive root system and so has also been used for erosion control, especially on marginal land where its ability to enrich the soil with nitrogen will encourage the growth of other plants.

Propagation is by seed. This needs to be pre-soaked for about 24 hours in warm water, by which time it should have swollen considerably, and can then be sown in a cold frame in the spring. Germination usually takes place within 2 - 3 weeks and plant should be ready for planting out in the following spring. They should start to crop by the time they are 5 - 8 years old.

**Database**
The database has more details on these plants: [Caragana arborescens](http://www.pfaf.org).