



60 N. Ronks Rd.
Suite K
Ronks, PA 17572
(717) 687-6224

Cow-peas, (*Vigna unguiculata*) -Variety: (Iron-Clay) - Summer annual legume
Dave Wilson, Research Agronomist

We have some cowpea seed available for sale this year, variety “Iron Clay.” The cowpea is also called “southern pea”, ‘Black-eyed Peas’ or “Crowder Peas.” These are different nomenclatures but are one and the same. To be technically correct though, cow peas, or “southern peas” are not PEAS, they are BEANS.

Somewhere along the way, this crop was dubbed “peas” but they are really beans. In the South there are many varieties that are grown and used for various purposes. Some are grown for food, others are grown as forages, and there are bush types, vining types and semi-vining types.

The “Iron Clay” variety is commonly grown as forage, and incorporates both the bush and vining types. This variety would be found in the “field and forage” classification of cowpeas, but can be used to eat for human consumption as well.

Cow peas are fast-growing, annual, summer forage legumes. They are excellent quality crops and have been used for fattening both sheep and cattle, and are also regarded as good feed for milking cows. Last year we cut some fresh in the field and put them in front of cows in the tie stalls. These were cows that had never been exposed to cow-peas before, and they ate them right up, so we know the cows will eat them or graze them well.

As a summer cover crop, they can significantly improve soil nitrogen levels in rotation by nitrogen fixation or by incorporation in soil as a green manure crop. The cowpea is tolerant of drought and heat. They do very well on a wide variety of soils, from light, sandy soils to well-drained but not excessively wet soils.

The “Iron Clay” variety seed is beige to light brown in color with a brown eye (brown hilum) and they are about 1/8 inch wide by 1/4 inch long. They can be drilled with a conventional or a no-till drill. They should be planted 1 1/2 to 2 1/4 inches deep. Don’t drill them shallow, as they need moisture to germinate. Since they are a hot-weather crop, the soil temperature should be at a steady 64°F temperature for planting and ideal germination. There are approximately 4,663 seeds per pound. The seeding rate for a straight stand is 30 to 50 lbs/acre drilled; or 70 to 90 lbs/acre broadcast, with an 80% germination rate. This produces a plant population of 111,900 to 335,700 plants per acre. Use the higher seeding rates in the North or in cooler areas and in drier soils.

If you are growing it for forage, it’s ready in about 45 to 50 days. It will flower in about 48 to 52 days, and will have mature seed in pods at about 100 days. The flowers will attract beneficial insects such as predatory wasps, honeybees, lady bird beetles, and soft-winged flower beetles. Cowpeas are often used in food plots for deer and wildlife as well.

Cowpeas should be inoculated with Group I inoculants. This is N-Dure Cowpea inoculant (2004), and if cowpeas have not been grown in the field before, the soil will likely not have the correct strain of rhizobium bacteria in the soil for an advantageous inoculation. The strain is *Bradyrhizobium sp* (Vigna). We recommend inoculation because this is a different bacterial strain than that used by alfalfa, clover or

soybeans. Last year this inoculant was packaged as peanut - lima bean inoculant. This is the same product with a different name for marketing reasons.

Cowpeas can be used in a crop rotation to build up soil nitrogen, as well as to break weed and disease cycles. In this capacity, it is always beneficial to introduce another species to your rotation. They are also useful for building up soil fertility as a summer cover crop. With proper inoculation, cowpeas that are not cut as forage and used as a cover crop can fix 20 to 115 lbs/acre of residual nitrogen into the soil. This can contribute significant to later crops in the rotation.

20 lbs/acre of cowpea and 30 lbs/acre of buckwheat together as a quick growing summer cover crop mix can be grown and turned under as green manure or sprayed to kill for no-till in 6 to 7 weeks. The cowpea fixes nitrogen, and the buckwheat makes soil phosphorous more available. The combined bloom of the cowpea and buckwheat make a great combination to attract beneficial insects.

Cowpeas can be planted in a mix with millet at about 12 to 15 lbs of millet and 40 to 50 lbs of cowpea, for a combined rate of about 52 to 65 lbs/ acre. The ratio of cowpea to millet can be adjusted up or down to make either a more leguminous mix or a heavier grass mix. This can be used as a forage cut or it can be grazed. Both will re-grow, if managed properly with back-fencing to prevent excessive hoof traffic.

Or, plant cowpeas with MasterGraze tillering corn for a grazing mix. The Mastergaze corn planted in 15 inch rows and the cowpeas drilled over top at about 40 to 50 lbs/acre will grow together and be ready to graze in about 60 to 65 days.

Cowpeas can also be successfully drilled over top of forage sorghum in 15 inch rows in a similar fashion, Plant the forage sorghum first in 15 inch rows with the planter at recommended population, then drill the cowpeas over top at 40 to 50 lbs/acre.