

Plant "Imagination"

Partridge Pea, submitted by Ron Kvass

Chamaechrista fasciculata

Caesalpinia family (Caesalpinaceae)

Description: This native annual plant is ½-2' tall, branching occasionally. Shorter plants are erect, while taller plants are inclined to sprawl. The slender hairless stems are initially light green, but become reddish brown. The alternate compound leaves are medium to dark green. They have petioles with nectaries that attract insects. Each compound leaf has up to 20 leaflets, which are somewhat sensitive to touch. A leaflet is about 2/3" long and 1/3" across. It is hairless and oblong. The bright yellow flowers appear along the major stems near the axils of the leaves. They are about 1" across, and have an open, irregular shape. Each flower has 5 rounded petals that vary in relative size, and there are about 10 reddish stamens. There is no floral scent. The blooming period is quite long, from mid-summer to fall. During the fall, pods develop that are initially hairy green, but later become hairless and dark brown. They are about 2½" long, ¾" across, and rather flat. The seeds are dark brown, rather flat, and slightly pitted. The root system consists of a central taproot and smaller auxillary roots.

Cultivation: The preference is full sun and average to dry conditions. The soil can contain sand, loam, gravel, or clay, to which this plant will add nitrogen. It favors poor soil because of reduced competition from other plants. Partridge Pea is easy to grow, but can spread readily in dry, open situations. It's not usually bothered by disease.

Habitat: Habitats include mesic to dry black soil prairies, sand prairies, savannas, limestone glades, abandoned fields, open areas along railroads and roadsides. Sometimes Partridge Pea is deliberately planted to stabilize banks around ditches and other areas, from where it frequently escapes. This plant favors disturbed areas.

Faunal Associations: Long-tongued bees are responsible for pollination of the flowers, which includes such visitors as honeybees, bumblebees, Miner bees, and large Leaf-Cutting bees. They are attracted to the food pollen of the purple anthers, and are then dusted by the reproductive pollen of the yellow anthers.

Two species of bees that are supposed to be oligoleges of Partridge Pea are *Anthophora walshii* and *Svastra atripes atripes*. Sometimes large Leaf-Cutting bees cut off portions of the petals for their brood chambers. The flowers are cross-pollinated primarily, but are sometimes self-pollinating. The petiolar nectaries attract a completely different assortment of insects, which includes such visitors as Halictine bees, wasps, flies, and ants. Unusual visitors to the nectaries are Velvet Ants (Mutillidae), which are hairy wingless wasps (in the case of the females). The caterpillars of several Sulfur butterflies feed on the foliage of this plant, including *Eurema lisa* (Little Sulfur), *Eurema nicippe* (Sleepy Orange), and *Phoebis sennae cubule* (Cloudless Sulfur). The seeds are an important food source for the Bobwhite and Greater Prairie Chicken. The leaves are suspected of being toxic to livestock, and are not favored by mammalian herbivores. White-Tailed Deer may browse on the foliage in limited amounts.

Photographic Location: The photographs were taken at Judge Webber Park in Urbana, Illinois.

