



# PARTRIDGE PEA

## *Chamaecrista fasciculata* (Michx.) Greene

Plant Symbol = CHFA2

*Common Names:* Sleeping plant, prairie partridge pea, showy partridge pea, prairie senna, large-flowered sensitive-pea, dwarf cassia, partridge pea senna, locust weed, golden cassia.

*Scientific Names:* *Cassia chamaecrista* L., *C. fasciculata* Michx.



John M. Row, USDA-NRCS Manhattan Plant Materials Center

### Description

*General:* Pea Family (Fabaceae). Partridge pea is an annual sub-erect native legume plant that reaches a height of 1 to 3 feet. The leaves consist of 10 to 15 pairs of small, narrow leaflets that are somewhat delicate to the touch. The showy yellow flowers, about 1 inch across, grow 2 to 4 together in clusters on the stem. Flowers normally bloom July-September. The fruit is a straight, narrow pod 1½ to 2½ inches long, which splits along 2 sutures as it dries; the pod sides spiral to expel the seeds some distance from the parent plant.

*Distribution:* For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

*Habitat:* Partridge pea grows on prairies, bluffs, riverbanks and river bottoms, as well as upland woods of the Great Plains. Partridge pea is common on sandy savannahs of the lower Gulf Coastal Plain. Partridge pea is most common on sandy to sandy loam soils. It grows best in full sunlight but will survive under shady conditions. Partridge pea has low water requirements and will grow and produce seed under stressed conditions. The lower pH limit of showy partridge pea is 5.0.

### Adaptation

The USDA hardiness zones for showy partridge pea are 3 to 9. It is distributed throughout the Midwest, eastern, and southern United States.

### Uses

*Wildlife:* The seed is one of the major food items of northern bobwhite and other quail species because it remains in sound condition throughout the winter and early spring. Partridge pea was found to be one of the most important fall and winter foods of bobwhite quail in Alabama. Partridge pea seeds are high in phosphorus content and protein value, and low in crude fiber and lignin making digestibility generally high.

Seeds of this legume are also eaten by the greater and lesser prairie-chicken, ring-necked pheasant, mallard, grassland birds, and field mice. Partridge pea often grows in dense stands, producing litter and plant stalks that furnish cover for upland game birds, small mammals, small non-game birds, and waterfowl.

Partridge pea is considered an important honey plant, often occurring where few other honey plants are found. Nectar is not available in the flowers of showy partridge pea but is produced by small orange glands at the base of

each leaf. Ants often seek the nectar and are frequent visitors. The common sulfur butterfly lays its eggs on the leaves, and the larvae use the leaves as a food source.

*Erosion control:* The plant can be used along road banks and stream banks to control erosion. Partridge pea most commonly occurs as a pioneer or colonizer of disturbed areas.

*Recreation and beautification:* The flowers of this plant can be used to beautify areas where wildflowers are planted. The foliage is sensitive. Partridge pea is commonly grown as an ornamental. The bright yellow flowers make it a popular choice for use in native gardens.

*Restoration:* Partridge pea is considered an excellent species for planting on disturbed areas for erosion control and improving soil fertility. It establishes rapidly, fixes nitrogen, reseeds, and slowly decreases as other species in the seeding mix begin to dominate the site. Nitrogen fixation is greatest during the flowering stage. To help prevent weed establishment and control soil erosion along county roadsides in Iowa, partridge pea is often included in the seed mix with other forbs and grasses.

### **Ethnobotany**

Cherokee Drug (Sports Medicine): root medicine used to keep ball players from tiring.

Cherokee Drug (Stimulant): compound infusion given for fainting spells.

Seminole Drug (Antiemetic): cold decoction of plant used for nausea.

Seminole Other (Tools): plants used as a bed for ripening persimmons.

### **Status**

This plant may become weedy or invasive in some regions or habitats and may displace desirable vegetation if not properly managed. Please consult with your local NRCS Field Office, Cooperative Extension Service office, state natural resource, or state agriculture department regarding its status and use.

Please consult the PLANTS Web site (<http://plants.usda.gov/>) and your state's Department of Natural Resources for this plant's current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

### **Planting Guidelines**

Drill seeds at ¼ to ¾ inch at a rate of 10-15 pounds of Pure live Seed (PLS) per acre. If broadcasting seeds, the rate should be increased and covered by lightly disking or cultipacking. Partridge pea is planted from late winter (March) to late spring (May). Scarification improves germination of seed, but it is not necessary for establishment of partridge pea. Seed should also be inoculated with the correct rhizobium before planting. Fertilizer should be applied based on soil test recommendations.

### **Management**

A light disking in the spring is necessary to ensure soil contact for volunteer reseeding. Partridge pea usually reseeds but will gradually disappear without regular maintenance. Fire or disking is performed in late winter to control unwanted vegetation. Weeds are controlled during the growing season by mowing or selective herbicides.

### **Pests and Potential Problems**

No known pest and potential problems.

### **Control**

Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective.

### **Seeds and Plant Production**

Partridge pea germination is improved with cold moist stratification for 8 weeks. In a growth chamber, germination occurs at an alternating cycle of 30°C daytime and 15°C nighttime temperatures. Optimum soil temperature for germination is 20° to 30°C. Seventy percent of seeds will germinate in 7 to 25 days. There are 62,000 partridge pea seeds per pound.

Seed for production fields are planted ¼ to ¾ inches deep on raised beds 36-40 inches apart. The seeding rate for seed production is 2-3 pounds PLS per acre. Phosphorus and Potassium is applied according to soil test recommendations. Seed is harvest in late October and November. Partridge pea is direct harvested with a conventional combine. Average seed production at the James E. “Bud” Smith Plant Plant Materials Center has been recorded at 550 pounds per acre.

### **Cultivars, Improved, and Selected Materials (and area of origin)**

‘Comanche’ (TX) partridge pea, a cultivar from the James E. “Bud” Smith Plant Materials Center (PMC) in Knox City, Texas, was selected for revegetation of critical areas, surface-mined lands, as a wildlife food plant, and as a plant for beautification.

‘Riley’ (KS) was developed by the Manhattan Plant Materials Center, Manhattan, Kansas, for wildlife habitat improvement, erosion control, and recreational area plantings in the Central Plains. Riley is adapted for conservation use in southwestern and southern Missouri, Arkansas; western Tennessee, northeastern Mississippi, western Louisiana, and northeast Texas.

Lark Selection (AR), a selected class release from the Jamie L. Whitten PMC, Coffeerville, Mississippi, was chosen for critical area seeding mixtures, wildlife food and cover, and beautification of roadsides in Arkansas, Louisiana, Mississippi, Alabama, and west Tennessee.

Cultivars are selected based on local climate, resistance to local pests, and intended use. Consult with your local land grant university, local extension or local USDA NRCS office for recommendations on adapted cultivars for use in your area.

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USDA, ARS, National Genetic Resources Program.

Germplasm Resources Information Network - (GRIN) ([http://www.ars-grin.gov2/cgi-bin/npgs/html/tax\\_search.pl](http://www.ars-grin.gov2/cgi-bin/npgs/html/tax_search.pl)) [Online: cited 16 March 2006]. National Germplasm Resources Laboratory, Beltsville, MD

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### **Citation**

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