Parthenium hysterophorus

Ragweed parthenium, false ragweed, Santa Maria

Parthenium hysterophorus L.

Family: Asteraceae

Description: Annual herb to 3 ft tall, branched, hairy, faint longitudinal stripes on stems. Leaves 8 inches long by 4 inches wide, deeply lobed. Flower heads small, many, white. Greek: *parthenos*, virgin, in reference to only the female flowers being fertile; *hysterophorus*, old generic name of similar meaning[5, 70].

Distribution: Tropical American origin. Common in mesic pastures, roadsides, and waste areas on Kaua‘i, O‘ahu, Moloka‘i, Maui, and Hawai‘i[70]. Occurs in southern USA to southern Brazil and northern Argentina. Introduced accidentally into India in 1956 and now infests most of India, where it is called “congressweed” after the white cap that is the symbol of the Congress political party. Found in southern China, Taiwan, Vietnam, some Pacific islands, and some African countries. Introduced into Queensland, Australia, in the 1940s with aircraft parts and in 1958 in grass seed from Texas. Did not spread quickly until 1970s. Now covers 420,000 acres, or 10% of Queensland. Also infests New South Wales and Northern Territory, Australia[1]. It is on the list of Australia’s 20 most unwanted weeds[10]. High water requirement. Does best in neutral to high pH soils, less prolific on other soils[1].

Environmental impact: Prolific seeder, 15,000 seeds per plant. Buried seed still 90% viable after 24 months[57]. A weed of croplands, pastures, and natural and recreational areas. Can cause 90% reduction in carrying capacity of pastures. Contains sesquiterpene lactones and phenolics, which makes parthenium weed allelopathic (suppressive) and causes dermatitis and other allergic reactions in humans and livestock, especially horses. Reduces beef production by A$16.5 million annually in Queensland[1]. Spreading into pastures and roadsides in Hawai‘i.

Management: Effective herbicides include 2,4-D, atrazine, hexazinone, and metsulfuron[1]. Triclopyr is effective on most Asteraceae. Australian scientists report the moth *Epiblema strenuana* promising. They are also looking at the rust *Puccina abrupta* var. *partheneni-cicola* and fungi that infest the weed in Mexico[57]. Australian authorities have imposed strict quarantines on contaminated equipment and stock to avoid spread into new areas. Since the weed only invades bare soil, good pasture management is effective for prevention[61].