

WRITTEN FINDINGS OF THE
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD
(December 1994)

Scientific Name: *Silene latifolia* subsp. *alba*, (syn. *Lychnis alba* Mill.)

Common Name: white cockle, white campion

Family: Caryophyllaceae

Legal Status: Class C

Description and Variation: A 1 ½ to 3 ½ foot tall perennial (or sometimes biennial), white cockle has hairy, jointed stems that can be spreading or nearly erect. The plant is hairy below and glandular toward the top. Its hairy leaves are opposite and simple, ovate to lanceolate. The plant is dioecious, with male and female flowers born on different plants. The fragrant flowers, which are solitary on long peduncles or in cymose clusters, have five white or pink petals that greatly exceed the calyx. The petals are deeply notched with tiny ears on the sides. The flowers open in the evening and close by noon. The small, rounded, rough seeds are produced in a bulb-like capsule.

Economic Importance: White cockle can be a serious problem in small grains, alfalfa, clover, and grass seed fields. Its seeds are difficult to separate from commercially produced clover or alfalfa seed. In Minnesota, approximately 7% of the timothy seed intended for certification is rejected due to white cockle (Strand and Wyse 1982). White cockle is a problematic for Washington's timothy growers, as well.

Geographic Distribution: A native of Europe, white cockle has become widespread and locally common in North America, especially on rich well-drained soils. The plant is found in the eastern and north central U.S., and southern Canada, as well as the Pacific Northwest (Muenscher 1955). In Washington, it is a particular problem in timothy growing regions.

Habitat: White cockle is found in grasslands and new clover and alfalfa seedings, especially on well-drained soils (Muenscher 1955). While fields, roadsides, pastures, grass embankments, and waste places are characteristic white cockle habitats, the species is also found in many undisturbed areas, where it can be mistaken for a native (Hitchcock and Cronquist 1964).

History: Brought in from Europe, white cockle was first noted in eastern Washington in 1923 (Gaines and Swan 1972).

Growth and Development: White cockle is a biennial or perennial (Muenscher 1955) that begins growth early in the spring. Second-year plants flower from June through September or October, shedding seed 4 to 6 weeks later. Mature seeds can germinate immediately, but many overwinter and germinate the following spring (Strand and Wyse 1982).

Reproduction: White cockle reproduces by seeds and short rootstocks (Muenscher 1955). Since this species is dioecious, not all plants produce seed. However, female plants are capable of producing 1,600 to 24,000 seeds per plant (Strand and Wyse 1982).

Response to Herbicides: Based on information from Minnesota, white cockle can be controlled most easily in field crops when it is in the seedling stage or during seed germination. In grass seed fields, Dicamba (Banvel) at ½ to 1 pink per acre works best. With small seeded legumes, Benefin (Balan),

applied at 1 1/8 to 1 1/2 pound per acre (depending on soil type) is the most effective herbicide for new seedings. Metribuzin, simazine, and terbacil have been used effectively on older strands in Minnesota. See Strand and Wyse (1982) for more details.

Response to Mechanical Methods: Cultivation or tillage for regular seedbed preparation will kill many white cockle plants. However, well-established plants are usually not killed, and tillage will promote seed germination. Tillage can be a suitable control in row crops or prior to seeding small-seeded grasses or legumes (Strand and Wyse 1982).

Biocontrol Potentials: No information available

References:

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