

**WRITTEN FINDINGS OF THE
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD
(Updated May 2008)**

Scientific Name: *Salvia pratensis* L.

Synonyms:

Common Name: meadow clary

Family: Labiatae (Lamiaceae)

Legal Status: Class A

Description and Variation:

Overall Habit: *Salvia pratensis* is a fibrous-rooted perennial ranging from one to two feet tall. The plant is aromatic, and covered with small hairs with the upper plant parts being glandular.

Roots/Rhizomes: Roots are fibrous.

Stem:

Leaves: The leaves are mostly basal, with a long stem. The three to six inch long leaves range from egg-shape to oblong. They may also be heart-shaped with a notch at the base and wrinkled. The leaf margins can be irregularly serrated (sharp, forward pointing) or rounded. There are very few, small leaves on the stem.

Flowers: The flowering stem is four to eight inches long, with flowers irregularly spaced at four to eight per node, in a whorl. The flowers are bilabiate, with the upper lip arched into a half circle. They are typically violet-blue, but can range from rose to dark violet in cultivated varieties. They are rarely pink or white. Flowers appear from June to August. The calyx bears long, shaggy hairs. The upper lip of the calyx is minutely three-toothed. The lower lip has pointed awns. The bracts under the flower heads are small (less than 1/2 inch), green, and broadly egg-shaped (Gleason and Cronquist 1991).

Fruits and Seeds:

Habitat: Meadow clary occurs on two confirmed sites in Stevens County, Washington, growing with clary sage. In one area, it occurs on a relatively steep slope with ponderosa pine; the site is relatively dry and well-drained. The species also occurs in less well-drained meadow sites (Stevens County Noxious Weed Control Board, pers. comm.).

Geographic Distribution:

Native Distribution: Meadow clary is native to Eastern Europe (European part of the Soviet Union) and Morocco.

Distribution in North America: Meadow clary occurs in 16 states, including the northeast, parts of the inland west and parts of the Midwest (PLANTS database). However, due to hybridization of the two closely related species of *S. pratensis* and *S. sclarea*, field populations are impossible to distinguish. Bract length is a highly variable characteristic. The fact that the species do co-occur is highly possible, but anecdotal in Idaho. In the past, all *Salvia* spp. were called "clary". In the 1920's - 30's, vast areas of dry canyon lands in Idaho were infested with "clary". We don't see that today. More research is needed. (L. Wilson, pers. comm.).

History and Distribution in Washington: The exact history of meadow clary in the Pacific Northwest, including the mode of introduction, is not known. While Hitchcock and Gleason do mention this species being found with clary sage along roadsides, in disturbed habitats and pastures, there are only herbarium samples from Klickitat County, in 1920 (WSU Herbarium). Stevens County identified *Salvia* spp. sites in 1996, where it is found along with clary sage (*S. sclarea*), which it resembles. A distinguishing characteristic of meadow clary is the smaller (or inconspicuous) bract under the flower heads, compared to the larger bract of the clary sage (Hitchcock et al. 1959).

Biology:

Growth and Development:

Reproduction: Meadow clary is a perennial herb.

Control:

Response to Herbicide: Due to the hairiness of the plant, a surfactant is necessary (J. Yennish, pers. comm.).

Response to Cultural Methods:

Response to Mechanical Methods: Unknown.

Biological Control Potential: None known. Although it was originally introduced to control Mediterranean sage (*S. aethiopsis*), the crown/root weevil, *Phrydiuchus tau*, does feed on clary sage. However, clary sage is not the preferred host (L. Wilson, pers. comm.).

Economic Importance:

Detrimental: Meadow clary poses a threat to forage production and plant biodiversity by displacing less competitive, more desirable species. In addition, both meadow clary and clary sage are close relatives of Mediterranean sage, a Class A noxious weed in Washington, which covers extensive areas of rangeland in Idaho, Oregon, California, and Colorado. Clary sage (*S. sclarea*) has demonstrated its invasive characteristics in Idaho, where it once covered more than

1,000 acres (L. Wilson, pers. comm.). Garden escapees have been collected in the Great Plains.

Beneficial: Meadow clary has been used in garden plantings. Chemicals in the plant, as well as the plant itself, have been shown to be effective in treating cancer of the gum and eye and vulvular ailments (Duke's Phytochemical and Ethnobotanical Databases 2008).

Rationale for Listing: Meadow clary poses a threat to forage production and plant biodiversity by displacing less competitive, more desirable species. The closely related species, *S. sclarea*, has demonstrated its invasive characteristics in Idaho, where it once covered more than 1,000 acres. In addition, meadow clary is a close relative of Mediterranean sage, a Class A noxious weed in Washington, which covers extensive areas of rangeland in Idaho, Oregon, California, and Colorado. Because of its demonstrated threats and potential to invade Washington, preventing the spread of this species is desirable. Meadow clary is currently only known from one county in Washington; therefore, prompt action could eradicate it from the state.

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