

White Sweetclover
Melilotis alba
MEAL12

Rank 81

Juneau has only one known infestation of white sweetclover, although EDDMapS has three bubbles for white and yellow sweetclover.

58.34770, -134.49347

42 ft. Elevation

Location notes: Edge of roadside, by empty corner lot between Old Glacier Highway and Vanderbilt Road near light post.

Single infestation known to exist in Juneau.

Plants were in full bloom, ranging from 1-4 ft. tall during the first week of July when Marie Heidemann and the Juneau IPC pulled all possible plant and root material.

2011 will be the 3rd year this site will have been pulled. Follow up for three years will keep this infestation from taking over the water's edge and lemon creek valley. **It took us less than two hours to pull the infestation**, perfectly ready in early July-- grown and flowering, but not seeding.



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- White Sweetclover has formed large monospecific stands along rivers in Southeast, Southcentral, and Interior Alaska
- Associated with 28 plant viruses
- This species alters soil conditions by fixing nitrogen and also has the potential to alter sedimentation rates of river ecosystems
- Each plant can produce 350,000 seeds, which can remain viable in the soil for up to 81 years, although ~90% germinate within the first 2 years.
- Outside Alaska, white sweetclover degrades natural grassland communities by overtopping and shading native species.
- Visited by bees, wasps, and flies



White Sweetclover has a high seed germination rates, and most germination and development happens in the spring. Temperatures of less than 59°F are optimal for germination.

Sweetclover is adapted to pH levels ranging from 5.0-8.0 and all soil texture, and is moderately salt tolerant.

Sweetclover does not need cold-stratification for germination.

Description

White sweetclover is a biennial plant 2 to 5 feet tall, branched. The leaves are trifoliate, alternate in arrangement, and 1/2 to 2 inches long. Fragrant white flowers are 1/8 to 1/4 inches long and arranged in many-flowered terminal and axillary racemes. Plants generally flower and die during the second year of growth. It flowers from June to October. Pods are normally black to dark grey and single-seeded. Seeds are yellow, ovate to kidney-shaped (Hultén 1968, Royer and Dickinson 1999). White sweetclover is erect, tall, and branching separating it from all other trifoliate legumes in Alaska. *Melilotus albus* is distinguished from *M. officinalis* by having white rather than yellow flowers.



A yellow sweetclover infestation along Alaska's Stikine River



Leaves



Flowers



Plants July 8, 2010 in Juneau



Roots



Single known infestation in Juneau



Average 3 feet tall