CLASS C

1) NAME

Artemisia absinthium L.--absinth wormwood

2) DESCRIPTION AND ACCOUNT OF VARIATION

A coarse, erect herbaceous perrenial, usually aromatic with a strong bitter taste. The roots are fibrous and the tough overwintering crown may be 6 cm or more in diameter in mature plants. Stems several in number and covered with fine ashy-gray hairs. Leaves are alternate, with the lower ones 2-3 times pinnatisect and the upper leaves less lobed. Inflorescence a large, spike-like panicle, 10-40 cm long with erect leafy branches. Flowers yellowish and all fertile. Fruit an achene without pappus, shiny brown with white striations.

3) ECONOMIC IMPORTANCE

a. Detrimental---Milk may be tained by absinth wormwood and grain from infested fields may be rejected. Pollen causes sensitized people great discomfort. The odor of the plant can cause illness in man.

b. Beneficial---Absinth was introduced for its medicinal properties in treatments for roundworms and for its sage-like flavor.

4) GEOGRAPHICAL DISTRIBUTION

A. absinthium is found over most of Europe and temperate Asia. It is an adventive species in North and South America and New Zealand. The weed is found throughout most of Canada, the northern U.S. and occasionally as far south as North Carolina in the east.

5) HABITAT

a. Climatic requirements--Absinth wormwood does best when there is abundant moisture. It is not able to maintain aggressiveness and vigor in dry areas. It does well on north-facing slopes and in ravines. It is tolerant of shade and can grow amongst trees.

b, Substratum---The weed does best on loams to clay loams and although it can thrive on heavy clays, it does not become a problem in such soils.

c. Communities in which species occurs--The plant is occasionally found as an invader of alfalfa and pastures, but is most prevalent along fencerows and roadsides. Its seedlings are not good competitors and it is outcompeted by

perennial grasses. The weed grows and spreads in moist ravines in competition with western snowberry.

6) HISTORY

The weed has a long history of use in Europe. It was used by practitioners of the occult for the psychedelic effects given by its essential oils. It was also recommended for roundworm control.

It was intentionally introduced into North America and by 1841 was regarded as an established roadside weed.

7) GROWTH AND DEVELOPMENT

a. Morphology--Absinth wormwood is a long-lived perennial. A vigorous plant may be 120 cm in diameter with 20 or more flower stalks. The roots lack the interxylary bark that protects some Artemisia spp. from dessication and this may account for the plant's sensitivity to drought.

In moist habitats the plants are generally green and in drier habitats they are gray-green.

b. Perennation---This species has buds on the crown just below the soil surface or at or just above it. The plant's root and crown overwinters, as well as the seeds and rosettes of first year plants.

c. Phenology---Seedlings emerge from early spring to autumn and form rosettes by the end of the first season. Growth resumes in early spring with new growth of 20-30 cm by June. One or more flower stalks may be produced by mid-July and seeds mature in late August. The current season's growth dies back to the crown the following spring and grows up among the frost-killed stems.

8) REPRODUCTION

a. Floral biology---The species is wind-pollinated and although many insects do visit they only do so for pollen consumption, not transfer.

b. Seed production and dispersal---The natural spread is by seed only. Seeds can be transported long distances by blown plant parts and by water. Flower production is prolific and plants can produce one or more flowering stems with a range of 674-1468 flower heads per stem and 35-38 seeds per head.

c. Viability of seeds and germination---Seeds are capable of retaining their viability for 3-4 years. Seeds are capable of germinating over a wide range of temperatures.

d. Vegetative reproduction---No evidence of natural vegetative reproduction has been observed.

9) HYBRIDS

None have been reported.

10) POPULATION DYNAMICS

The plant readily invades disturbed areas where there is a lack of competition from other species. Where there is a closed grass sward, establishment is minimal. It is most commonly found along roadways, ditch banks, and in overgrazed pastures.

11) RESPONSE TO HERBICIDES AND OTHER CHEMICALS

A. absinthium can be completely controlled by one application of 2,4-D at a rate of 1.7 kg/ha in each of two consecutive years. Dicamba applied at .57 kg/ha in the spring also is effective.

12) RESPONSE TO OTHER HUMAN MANIPULATION

Routine summer fallow and fall tillage will prevent establishment on cultivated lands because of the large proportion of seeds that germinate at this time. Spring tillage is less effective because the rosettes are more tolerant to tillage. Repeated cultivation may eradicate an established stand. Mowing reduces seed production but does not kill existing plants.

13) RESPONSE TO PARASITES

See Maw et al. 1985 for a list of attacking organisms.

14) LITERATURE CITED

Maw, M. G., A. G. Thomas, and A. Stahevitch. 1985. The biology of Canadian weeds. 66. Artemisia absinthium L. Can. J. Plant Sci. 65: 389-400.