WRITTEN FINDINGS OF THE
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD
(UPDATED AUGUST 1999)

Scientific Name: *Helianthus ciliaris* DC

Common Name Texas blueweed

Family: Asteraceae (Compositae)

Legal Status: Class A

Description and Variation: A member of the sunflower family, Texas blueweed (*Helianthus ciliaris*) is distinctive because of its bluish or grayish green foliage. Lance-shaped or narrow linear leaves are sessile (attached directly to the stem, without stalks) and may be alternate or oppositely arranged on the stem. The margins are wavy and bear short, stiff hairs. This plant is a rhizomatous perennial usually growing 1 to 2 feet tall with roots that reach as deep as 5 feet into the soil. The composite flower heads are 1 to 1-1/2" wide with yellow ray or marginal flowers (less than ½ inch long) and central reddish or purplish-brown disk flowers. Each plant may have 1 to 50 seed heads, with each of those containing 100 to 150 seeds.

Economic Importance:
Detrimental: Texas blueweed is a potential pest in any cultivated field it invades. It is unpalatable to livestock and severely reduces crop yield in some regions. Because of its competitive nature and persistent growth it poses the threat of becoming the dominant plant in cultivated fields it has invaded.

Beneficial: Nothing listed.

Habitat: Saline or alkaline soils, sand loam ditch banks, drainage areas, dry lakes, roadsides and cultivated fields.

Geographic Distribution: Native to the American Southwest, it is one of the very few native plants in Texas that is also considered a noxious weed there due to its tendency to invade disturbed areas. It has become established in Kansas, New Mexico, Arizona and California and is also known from two sites in Twin Falls County, Idaho. In Washington, one small infestation exists in a vineyard in Yakima County approximately 4-1/2 miles northeast of Sunnyside.

History: Texas blueweed is native to the grasslands of the south-central and southwestern United States and northern Mexico, and was once considered to be the worst weed pest in West Texas, causing a greater annual loss of yield in crops than any other weed. It is thought that its introduction to California was due to the shipment of contaminated seed oats or alfalfa seed from Texas probably during the 1920's. In the early 1970's it appeared in a Yakima Co, Washington vineyard and has since not been observed anywhere else in the state. It is not known how the plant was introduced to Washington.

Growth and Development: Strongly rhizomatous perennial that forms dense patches in disturbed areas. Flower heads appear in mid summer and mature in late summer. The tops of the plants then die off with the first killing frosts of fall.

Reproduction: Plants reproduce by seed and rhizomes. Although germination tests of seeds showed low seed viability (as low as 1%), this method of reproduction is important in long distance dispersal. The main reproductive strategy is through the production of rhizomes. Because rhizome fragments are capable of sprouting new plants, cultivation in some cases may actually aid its spread by distributing fragments throughout the soil.

Response to Herbicide: Dicamba, 2,4-D, Roundup, imazapyr, MCPA, picloram and clopyralid are all reported to control this plant, though data are lacking in the Pacific Northwest. Follow the label instructions and refer to the annually updated Pacific Northwest Weed Control Handbook.

Response to Cultural Methods: In its natural environment Texas blueweed grows as a component of native perennial grasslands without becoming the dominant species. The establishment of perennial grasses around an infestation may help to control this weed.

Response to Mechanical Methods: Depleting the plant's energy reserves by persistent pulling, digging and cultivation in combination with the use of herbicides and the establishment of perennial grasses may be the best strategy for control. Covering small infestations to prevent exposure to sunlight may also be a feasible method of control and/or eradication.

Biocontrol Potentials: Texas blueweed is resistant to the sunflower beetle and the carrot beetle.

References:

*Bellue, M. 1937. Blueweed, *Helianthus ciliaris*, DC. is Established in Five Counties. The Bulletin, Department of Agriculture, State of California. Vol.26, No. 2, pp247-252.

Munz, P. and Keck, D. 1968. A California Flora. University of California Press. Berkeley, Los Angeles and London. p.1089.

*Parker, K. F. 1972. An Illustrated Guide to Arizona Weeds. The University of Arizona Press, Tucson. pp.300-301.

*Roche', C. 1991. Texas Blueweed (*Helianthus ciliaris*). Pacific Northwest Extension Bulletin PNW364. WA, ID and OR.

*Schoenhals, M. G and Wiese, A. F. 1988. Control of Blueweed and Silverleaf Nightshade. Proceedings of the Southern Weed Science Society. Texas Agricultural Experiment Station. Bushland, Texas. Vol.41.

*Texas Agricultural Experiment Station: The Blueweed and its Eradication. 1922. B. Youngblood, Director. Agricultural and Mechanical College of Texas, College Station, Brazos County, Texas. No. 292. pp.1-18

* *References available from the Washington State Noxious Weed Control Board Office in Kent.*

Rationale for Listing:

Texas blueweed establishes in disturbed and cultivated areas resulting in dense stands that displace forage for livestock and significantly lower crop yield in some regions. Because of this weed's limited distribution in Washington state, its ability to out-compete desirable plants and its reputation of severely reducing land productivity, *Helianthus ciliaris* meets the requirements of a Class A Noxious Weed on the Washington State Noxious Weed List.