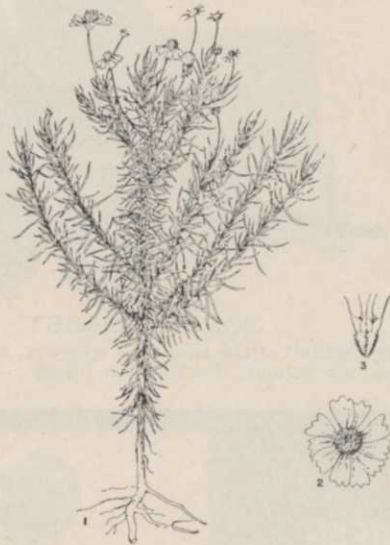


BITTERWEED

(*Helenium tenuifolium*)



Bitterweed, found from Virginia to Kansas and southward to Florida and Texas, has spread as far north as Michigan and Massachusetts. An annual that reproduces by seeds, bitterweed is also known as yellow dog fennel and bitter sneezeweed, or simply, sneezeweed.

This plant grows in wastelands, in yards, along roadsides, and around buildings. In some areas, it is a common pasture plant and may cause livestock poisoning if grazed in the late summer and early fall when plants are in bloom. Bitterweed may also produce milk with a bitter flavor if grazed by cows.

The smooth, erect bitterweed stem grows from a short, branching taproot to a height of 4 to 30 inches, with many branches in the upper part (1). Numerous narrow, smooth leaves grow alternately from the stem and branches. Leaves are closely crowded.

Flower heads (2) are about $\frac{3}{4}$ inch in diameter. Several yellow ray flowers with 3-toothed tips surround a dome of yellow disk flowers.

Reddish-brown seeds (3) are wedge-shaped and hairy on the edges. Seeds have bristled scales at the top.

Good control of bitterweed usually results from the application of 1 pound of 2,4-D amine per acre before the weeds are 1 inch high. Older weeds in their bloom stage may require 2 or 3 applications, or use of 2 pounds of 2,4-D amine per acre, for control. Good control of young weeds may also be obtained from 2,4,5-T, MCPA, or silvex applied at the rate of 1 pound per acre.

Prepared in cooperation with Crops Research Division, Agricultural Research Service, United States Department of Agriculture, Beltsville, Maryland

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Dr. Lewis C. Chadwick, Columbus, Ohio, executive director of International Shade Tree Conference.

also planned for commercial arborists on Tuesday.

The municipal arboriculture program, arranged by the Municipal Arborists Committee, Carl Schiff, chairman, has scheduled talks on "Municipal Street and Shade Tree Problems," by Brian Fewer, Supervisor of Street Tree Planting, Dept. of Public Works, San Francisco, Calif.; and "High Production Tree Planting Practices," by Albert Ayling, City Forester, Warren, Mich. Municipal arborists have also set panel discussions on "Tree Evaluation," and "The Labor Situation: What Can Be Done About It," to be moderated by Carl Schiff, Director of Horticulture, Dept. of Parks, New York, N. Y.

Arborists to Hear Panel

The Utility Arborists Committee, C. E. Lee, chairman, has arranged a program of panels and talks, which will include "The Utility Arborist," by Harold Cody, General Superintendent, Distribution Div., Cleveland Electric Illuminating Co., Cleveland, Ohio. Municipal and utility arborists will get together for a dinner program, also planned for Tuesday.

Exhibits, a tour of the Holden Arboretum, and commercial equipment demonstrations are to highlight the ISTC program for Wednesday, Aug. 31.

A full slate of educational sessions is again set for Thursday, Sept. 1. Talks are to include: