NC STATE UNIVERSITY

Aquatic Weed Fact Sheet

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Alligatorweed

Alternanthera philoxeroides

Alligatorweed, a perennial, mat-forming member of the Amaranth family, intially was introduced to the southern United States from South America in the early 1880's as a contaminant of ship ballast. The earliest known herbarium specimen was collected in 1885 near Charleston, SC. Since then, introductions have occurred near other ports of entry, and at least two morphologically distinct biotypes have been documented. Alligatorweed's potential was recognized by the turn of the 20th century, but was not realized until the mid-1940's, when the spraying of 2,4-D eliminated its major competitor, waterhyacinth, from many areas. Alligatorweed infestations blocked rivers, canals, and ditches across the South, often causing severe flooding. Alligatorweed is totally amphibious and can exist in environments ranging from dense, free-floating mats to damp soil or entirely terrestrially. Alligatorweed now is found from coastal northern Virginia to Florida, westward to Texas, although a few outlying infestations have been reported as far west as California. Its spread inland occurred primarily with contaminated nursery stock. Biological control insects have eliminated alligatorweed as a major problem in all except the most northerly portions of its range. It remains a serious aquatic weed problem only in the coastal plain of North Carolina, where the biocontrol insects do not overwinter. It also has become a major pest in row crops in low-lying areas in many southeastern states.

Alligatorweed stems distinctly jointed and are hollow except at the nodes. The stems are light green in color with faint darker green parallel lines extending from one node to the base of the next. When stressed, they may become pink to reddish. Roots are produced at the nodes, and each node has two shoot buds at the base of the leaves. New shoots and roots may be produced within three days from a stem fragment with only one node. Terrestrial infestations produce two types of rhizomes, including purplish, horizontal rhizomes that resembles stems with very short internodes, and a fleshy, white, root-like rhizome that looks similar to the tap root of wild carrot. Terrestrial stems usually are pithy or even solid, rather than hollow, as in the aquatic stems. Leaves are oval to lance-shaped, have a prominent midrib, and are arranged opposite along the stem. Small, clover-like, white flowers are borne on short stalks attached in the leaf axils near the end of the stems. Flowering occurs from late April through October. Very few seeds form (most flowers are entirely sterile), and no seedlings have been found in U.S. populations. Hence, reproduction is entirely vegetative by fragmentation.

For additional information visit our web site at:

http://www.cropsci.ncsu.edu/aquaticweeds

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