



## Aquatic Invasive Species Quick Guide

### Curly-leaf Pondweed (*Potamogeton crispus* L.)

**Description:** Curly-leaf pondweed is a non-native, perennial aquatic plant in the Potamogetonaceae family, can grow in very shallow water or down to at least 15 feet deep. Its leaves are alternate with serrated margins, a blunt tip, and 3-5 veins running from the base to the tip. Late in its seasonal life cycle, the leaves become very wavy, but young plants have flat leaves. Curly-leaf pondweed typically dies back in June/July, but may grow year-round if a source of cool water exists nearby. Small, cloning buds (turions) are produced at the tip of the plant and in the leaf axils, which lie dormant through the summer and sprout by the following spring.



Curly-leaf pondweed has alternate, wavy leaves with blunt tips.

**North American Distribution:** Curly-leaf pondweed has been found across at least 47 U.S. states and most of southern Canada.



Leaves have small teeth on the edges and 3-5 veins running the length of the leaf.

**Dispersal Vectors:** Curly-leaf pondweed was introduced to North America from Europe in the late 1800s as an aquarium plant. It may also have been introduced during common carp stocking programs. Local spread is by rhizomes and turions. Seed viability in natural systems is typically very low (~0.001%) (Catling and Dobson, 1985). Boats have the potential to move curly-leaf pondweed between water bodies by transporting plants fragments with developed turions attached.

**Ecological Impacts:** Curly-leaf pondweed can form large, dense beds that sprawl across the surface, often seen in shallow lakes with soft sediments. These beds inhibit recreational activities and can reduce water flow. Die-off of curly-leaf pondweed in summer often leads to algae blooms. Seeds of curly-leaf pondweed are readily consumed by many species of ducks.

**Control Options:** Manual removal of curly-leaf pondweed is difficult; it involves pulling the plant and rhizome in as few pieces as possible. Rhizome fragments will sprout new plants. Turions also must be removed, so removal before turions are produced is recommended.

Mechanical removal can be done with aquatic plant harvesters, and should be done just before turion development. Removal of the top several feet of the plant at this time will reduce the number of seeds and turions produced that year. This type of removal could possibly stimulate rhizome development.

Chemical control typically uses contact herbicides like endothall. It can be effective on curly-leaf pondweed when applied at the proper dose and time of year, but multiple years of treatments are necessary to deplete the reserve of turions in the sediment. Unintended damage to the native aquatic plant community is likely with these herbicides. Most states require chemical use permits for any herbicide treatments in standing water or wetland situations.

No effective biological control agents are currently known.

#### Additional Information:

Catling, P. M. and Dobson, I. 1985. The biology of Canadian weeds. 69. *Potamogeton crispus* L. Can. J. Plant Sci. 65: 655-668.

**Photo Credit:** Paul Skawinski



Turion of curly-leaf pondweed.

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Developed by Golden Sands Resource Conservation & Development (RC&D) Council, Inc. as part of an aquatic invasive species (AIS) education program, supported by an AIS grant from the Wisconsin Department of Natural Resources.