Managing Japanese Knotweed

Japanese knotweed (Polygonum cuspidatum) is an imposing herbaceous perennial that is commonly called 'bamboo'. It grows in dense patches to heights of 10 feet, on sites ranging from strip mine spoil to shaded streambanks. It is native to Asia, and was originally introduced to the U.S. as an ornamental in the late 1800's. In CREP plantings, knotweed will overrun riparian buffer tree plantings as well as grassland areas. Knotweed offers little habitat value other than cover, and greatly degrades the wildlife habitat value of your plantings.

Unique Among Weeds

There is no mistaking a well-established stand of Japanese knotweed for any other plant in PA except for its close kin, giant knotweed (Polygonum sachalinense). Both knotweeds grow in tall, dense stands that shade out other vegetation. Both have large, hard-sized, heart-shaped leaves, and jointed, hollow stems that look like bamboo. Knotweed is not a true bamboo (a woody, evergreen grass), but is a relative of plants such as buckwheat, smartweed, and the PA Nuisious Weed mile-a-minute vine.

Knotweed stems emerge in late-March to mid-April, depending on soil temperatures, and begin a burst of rapid growth. In a warm spring, knotweed can be 6 feet tall before May 1. Flowering usually occurs in July, and the seeds mature in August and September.

As frightening as the above ground growth of knotweed is, it is the rhizome system that is the real problem. A rhizome is an underground stem that gives rise to roots, aerial stems, and more rhizomes (Figure 1). Knotweed rhizomes spread vigorously, expanding the size of the knotweed stand. Rhizomes are also very durable. A very small piece of rhizome that is moved to another site will give rise to a new plant. Knotweed on streambanks spreads downstream as the bank erodes and pieces of rhizome break off and float downstream to take root elsewhere (Figure 2).

Knotweed Control Measures

To control knotweed, you have to control the rhizome system. To bring a knotweed infestation to a manageable level, you need to start with multiple treatments, and it will take at least two years.

The multiple treatment approach relies on depletion of the reserves stored in the rhizomes in the late spring, and