

## Weed Identification and Control Sheet:

# Quaking aspen (*Populus tremuloides*) Big-tooth aspen (*Populus grandidentata*)

**-2**  
**Persistent**  
**Weed**

### DESCRIPTION:

Big-tooth aspen and quaking aspen are colony-forming trees in the willow family. Often as a result of over-logging and lack of fire these early successional trees can quickly form large colonies. The tree grows rapidly from basal sprouts and root sprouts, but they seldom reproduce from seeds. Rotted trees provide important cavities for wildlife. The catkins and buds provide a valuable food source for birds and mammals. Aspens are an important source of paper pulp, matches, lumber and pallets. Aspen trees grow rapidly, exceeding 3 feet per year in the first decade. Despite some beneficial qualities of these native trees, the rapid spread of clonal stands of aspen can particularly threaten plant diversity of prairie, oak savanna, and open, oak-dominated systems.

### IDENTIFICATION:

The white bark of aspen trees is their most distinctive trait. Mature big-tooth aspen (*Populus grandidentata*) have thick, grey bark with long ridges on the lower trunk, with only the upper trunk and branches showing the smooth white bark. The trunk is generally long and straight up to 40' tall and generally around 1' in diameter, but can occasionally be over 2' wide. The broad leaves of aspens are easily recognizable with quaking aspen (*P. tremuloides*) having more finely serrated leaves and slender twigs in contrast to the larger toothed leaves and stout twigs of big-tooth aspen. Small catkins are wind-pollinated in early spring before the leaves appear. Big-tooth aspen tolerates drier, sandy conditions of upland sites, whereas quaking aspen can thrive in a variety of soils and habitat types. The two species can also hybridize naturally.

### CONTROL METHODS:

**Organic:** Girdling is a preferred method control as it minimizes re-sprouting. Girdling involves using an axe or sharp tool to remove a roughly 6" strip of the outer and inner bark around the entire trunk. Every tree in the clone must be girdled for the treatment to be successful. Stems too small for girdling can be cut twice during the growing season, each time after leaf-out. Girdling can also be done with a chain saw by cutting two, parallel, shallow rings around the entire tree at least 4" apart, again, being sure to cut entirely through the inner bark but not into the heartwood. Cutting too deep will trigger a wound response from the tree to send up new shoots. It may take two growing season for the colony to die off. Once completely dead, the trunks can then be cut without stimulating re-sprouting.

**Chemical:** Glyphosate (Round-Up®, etc.) applied at the cut stump treatment concentration can be used to treat the smaller cut stumps and improves the effectiveness of girdling, especially for chain-saw cuts. Since roots of aspen clones are interconnected, untreated stems will send up new shoots. You can also use triclopyr (Garlon® 4, etc.) diluted in oil for basal bark treatment, applied by spraying or painting the triclopyr around the stem in a strip 8-12" tall. Fosamine® has shown

to be effective when applied to root suckers between the months of July and September. Glyphosate or triclopyr can also be used at a foliar concentration to spray leaves of resprouts. Always read herbicide labels carefully before use and always apply according to the instruction on the product label.



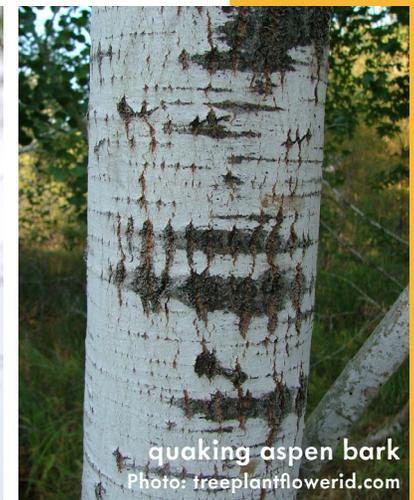
quaking aspen leaves  
Photo: Wallace H. Hansen (www.nwplants.com)



big-tooth aspen leaf  
Photo: Albert Herring



big-tooth aspen bark  
Photo: Rob Routledge, Sault College,



quaking aspen bark  
Photo: treeplantflowerid.com