

THE BUTTERNUT

an endangered tree

FADING AWAY

Here is what you can and cannot do with your butternut tree.

- A person can cut down a butternut tree that was planted/cultivated or is confirmed to be a butternut hybrid.
- A person can remove hazard branches from a butternut tree as long as it doesn't result in death of the tree.
- An unhealthy butternut tree can only be cut down if it is determined to be "non-retainable" by a butternut health assessor trained by the Ministry of Natural Resources (MNR).
- If a person wishes to cut down a healthy butternut tree (as designated by a butternut health assessor trained by MNR), then a permit under the Endangered Species Act would be required, and planting trees to replace the one that is cut down must occur.

For more information regarding butternut and the regulations under the Endangered Species Act contact the MNR Species at Risk Biologists:

Aurora District: Melinda Thompson-Black, Tel. (905) 713-7425

Midhurst District: Suzanne Robison, Tel. (705) 725-7542

CONTACT OUR BUTTERNUT RECOVERY PARTNERS

• Butternut Technician - Madelaine Danby, Tel: 705-725-7547,

Email: madelaine.danby@ontario.ca

• Dufferin County Area - John Osmok, Tel: 705-725-7561,

Email: john.osmok@ontario.ca

• Simcoe County Area - Al Winters, Tel: 705-725-7557,

Email: al.winters@ontario.ca

• Halton & Peel Regions Area - Greg Bales, Tel: 905-713-7410,

Email: greg.bales@ontario.ca

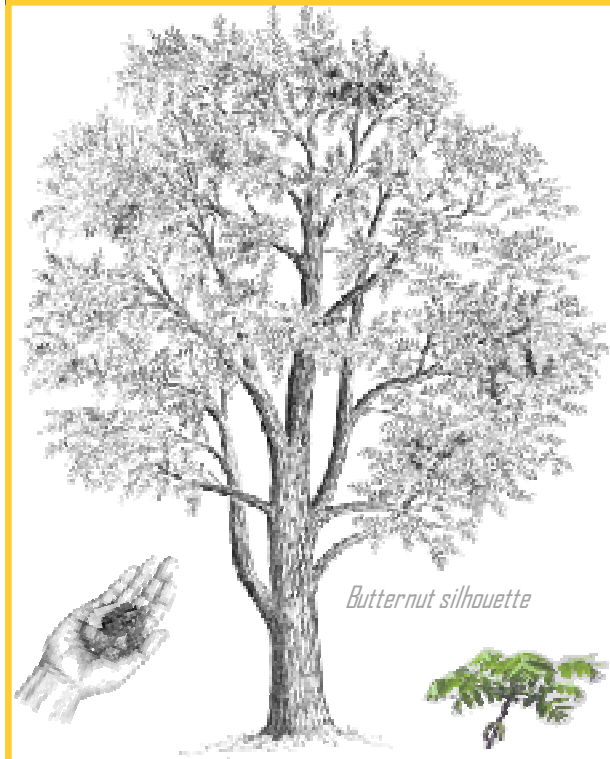
• York Region Area - Brian Peterkin, Tel: 905-713-7732,

Email: brian.peterkin@ontario.ca

Outside these areas contact Barb Boysen at the Forest Gene Conservation Authority, Tel: 705-755-3284,

Email: barb.boysen@ontario.ca, Website: www.fgca.net

Assistance for this project was provided by the Ministry of Natural Resources and Environment Canada



BUTTERNUT TREES *FADING AWAY*

The butternut tree is fast fading from our woodlands, field edges and backyards. The Butternut Canker *Sirococcus clavignenti juglandacearum* is the fungal disease that is causing the butternut's decline. It can infect and kill healthy trees as well as those that are injured or stressed.

Currently, the butternut is listed as Nationally Endangered Species by the Canadian Wildlife Service. Here in Ontario it is designated as an Endangered Species under the Provincial Endangered Species Act.



Above & right: butternut root flare and stem oozing black fluid from butternut canker

A newly infected tree does not exhibit any obvious symptoms until the disease begins to colonize and kill the inner bark. Infection usually occurs through buds, insect wounds or other openings in the bark.



Above: black fluid oozing from side branch

Above: canker forming below leaf scar

BUTTERNUT CANKER

As the disease progresses, branch dieback becomes visible. The disease proceeds to kill patches of the bark in areas known as cankers. They will eventually encircle branches and stems and cut off the flow of water and nutrients within the tree. As the number of infected sites on the tree increases, crown die-back accelerates. In early spring and summer, canker cracks may begin to exude a blackish fluid. This usually occurs in the upper most branches making it difficult to spot from the ground level.



Above: dying branches in the upper crown



Above: epicormic branching along stem of tree

Common Signs and Symptoms of Butternut Canker

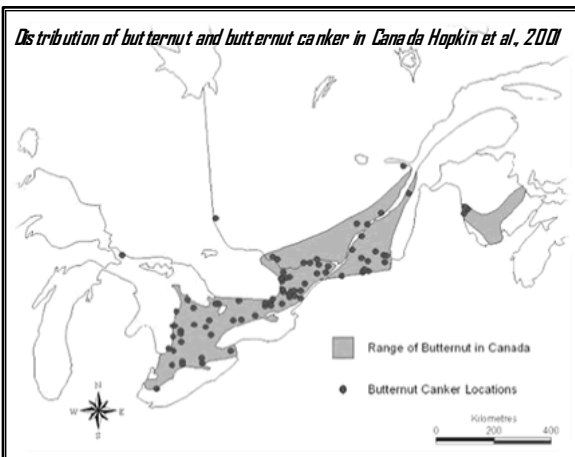
- *Dying branches in upper crown.*
- *In spring, a thin black fluid oozes from cracks in bark.*
- *In summer, fall, and winter, the black fluid dries to a sooty stain.*
- *Underneath the bark, sunken, elongated, diamond-shaped cankers, dark brown to black in colour, on the branches or the stem.*
- *Epicormic branching below dead or infected area.*

WHAT IS A BUTTERNUT?

Butternut, *Juglans cinerea* L. is a member of the walnut family and is native to, and widespread in eastern Canada. It grows in southern Ontario and Quebec, as well as New Brunswick. It is a small to medium-sized deciduous tree. The species is relatively short lived, rarely living longer than 75 years.

Butternut is intolerant of shade, meaning it does not grow or reproduce under a forest canopy. It can be found scattered individually or in small groups within mixed hardwood stands, along fence lines or in open fields. Butternut is commonly associated with other tree species such as basswood, black cherry, beech, black walnut, elm, hickory, oak, red maple, sugar maple, white ash, and yellow birch.

Butternut produces an edible and nutritious nut which is an important food source for birds, squirrels, and other small mammals. First Nation people used the nut oil for cooking, hair dressing, leather-making and polishing tools. Carvers and woodworkers value the wood for its softness, colour, and varied texture.

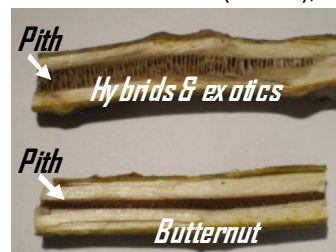


BUTTERNUT DESCRIPTION AND IDENTIFICATION

- The branches bend downward and turn upward at the ends. When growing in open areas, butternut trees have short trunks, with broad, spreading crowns.
- The nut is oval with pointed ends. Its husk is sticky, hairy, and yellowish-green. The nuts ripen from late September to mid-October.
- The compound leaves are yellowish-green with a fuzzy underside. They are 30 to 60 cm long. Each leaf is made of about 11 to 17 leaflets, with a prominent terminal leaflet.
- The twigs are buff-coloured (orange-yellow) and covered with dense hairs. A hairy fringe lies above each leaf scar.
- The buds are blunt, tan-coloured and hairy. There can be two buds above each leaf scar. The buds are arranged alternately along the twig. There is a large terminal bud at the end of the twig.
- On young trees, the bark is grey and smooth. The bark separates into wide, flat topped intersecting ridges on mature butternut trees.

Butternut and black walnut can be difficult to tell apart especially when they are small saplings. To the right is a visual comparison of our two native species. As well exotic walnut trees and butternut hybrids are also found across southern Ontario. A few tips to discern exotic walnuts/hybrids from our native butternuts:

- Exotic walnuts/butternut hybrids have green leaves remaining on tree later than native walnuts (October).
- Pith is wider and lighter brown on exotic walnuts/butternut hybrids.



WHAT IS THAT TREE? BUTTERNUT OR BLACK WALNUT?

Butternut leaflets opposite and almost stalkless



Black walnut leaflets alternately arranged and stalked

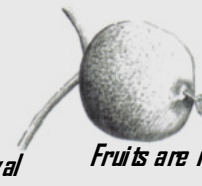


Butternut



Fruits are oval and sticky

Black walnut



Fruits are round



Nuts have jagged ridges



Nuts have rounded ridges

Terminal bud is as broad as it is long, slightly fuzzy



Pith light brown

Black walnut

Terminal bud long, buds very fuzzy



Leafscar straight across with hairy fringe

Pith dark brown

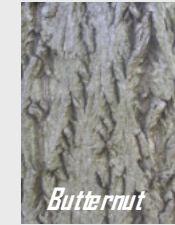
Butternut

HERE IS HOW YOU CAN DISTINGUISH THEM!

Butternut & Black Walnut Bark Characteristics

Butternut bark is ash-grey with flat topped ridges.

Black walnut bark is dark brown with deep furrows



Butternut



Black walnut

BUTTERNUT CONSERVATION, MANAGEMENT AND RECOVERY PROGRAMS

The Ontario Stewardship councils from Halton-Peel, York Region, Dufferin and Simcoe Counties are working together with other partners in a recovery program for butternut trees. This program is part of a larger recovery effort across north eastern and north central North America to try to save this endangered species. Our intention is to engage private landowners and community forest managers to assist with this regional recovery project for butternut. We will locate and map mature and healthy butternut trees that will allow us to forecast and collect seed from select butternut trees each fall and germinate those seeds to produce butternut seedlings that will be planted on site-appropriate locations throughout the butternut recovery program area. To assist in the recovery program landowners with butternut can also fill out a butternut survey form and return it to your respective region or county Ontario stewardship coordinator. You can find this survey form at http://www.fgca.net/conservation/sar/butternut_helpus.aspx