

Canadian Chestnut Council

. . . on the Chestnut Trail

1332 Suncrest Road
Kingsville, Ontario N9Y 3H3

NEWSLETTER #17
May 1998

Editor's Comments

The Canadian Chestnut Council (CCC) Newsletter is published twice a year and is available to all who make an annual membership contribution. A Regular Membership fee costs \$10.00 and is payable to the secretary-treasurer any time. The CCC invites you to qualify for a Contributing Membership by donating \$25.00 or more.

Spring and fall issues of the Newsletter touch upon timely matters relating to the growth and care of chestnut seedlings and young trees.

Progress on the goal of restoring the native chestnut in Southern Ontario is reported. Less than ten years ago we learned about trial plantings of the American Chestnut in Nova Scotia. Then about two years ago we heard about the existence of a few older chestnut trees in that province. These are all blight-free. In future, we shall try to keep you informed about the chestnut in both Ontario and Nova Scotia.

Newsletters also provide information about what is new in bio-control of the chestnut bark fungus. As briefly as possible, our news covers at least some of the many important developments of the large restoration program underway in the U.S.A.

Announcements of the CCC annual meeting and other public meetings that might challenge the interests of chestnut growers are included.

Letters to the editor and other articles are welcome. The CCC is a growing organization which profits from your interest and help. If we are not serving your needs, we want to know.

Individually we can do much, collectively we can do much more.

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Reflections on the Chestnut by Robert Landon

"Before and after 1920 I spent time living on a farm near the village of Walsh, a few miles southwest of Simcoe, Ontario. I remember an open area of ten to twelve acres between the farm buildings and the bushland. In this cleared area four or five great spreading chestnut trees grew, and from them we gathered nuts every fall. The area was grazed by sheep and young cattle with the result that the fallen nuts were readily seen and easily harvested. Near these old trees there were chunks of branches suitable for throwing up to "clubdown" the nuts. These clubs remained strewn around the trees from year to year. Nuts from some of the trees were quite a lot larger than those from others. The nuts were enjoyed raw, roasted, or boiled in salty water... the latter very tasty. Dried nuts could be ground up and used in baking, or just pocketed to suck in school.

Occasionally logs would be harvested from the bushland when there was a use for the lumber on the farm, or for fence posts, although black locust posts from the locust ridge would last longer.

After the blight struck, marketable logs were sold although prices for chestnut were not good. Dad had many logs sawn at Butler's Mill in Vittoria and worked into V-match tongue and groove boards which were used for many purposes over quite a period of time, e.g. to build a cottage at Turkey Point and a poultry house for me. The latter was framed with undressed 2" x 4"s and clad with V-match material. The whole building was mounted on 8' x 8" skids. The building was painted with a mixture of lamp black and linseed oil. Both these buildings are still in use today.

The interior trim of many houses in this area are of chestnut. I suspect we did not recognize or appreciate the beautiful grain of dressed chestnut... it being too common.

After the best lumber had been harvested, there remained much more useful stuff suitable for working into 2" x 4" scantlings, fence posts, telephone poles, etc. I recall helping get out an order for 300 fence posts to sell for seven cents each. When I built my first greenhouses in the early thirties, the boiler was fired with 4 foot bolts of chestnut. Of course, this fuel was free to me for the taking. Chestnut firewood was a common commodity for many years.

While driving along country roads in this area last fall, I was surprised to see quite a lot of young chestnut trees, some of which were probably large enough to bear nuts, but then most showed lesions of blight. Lesions can often be seen on very small shoots. While most of these trees are probably coppice of some sort, I feel others are more likely to be seedlings.

I hope the foregoing may be of interest to younger members of your Council.

*Robert Landon
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P.S. - I don't recall the nuts being of much commercial value, although I am told they were at one time... that rural storekeepers would accept them in barter and that many nuts were sold on the Simcoe Market."

Editor's Note...

Many thanks, Mr. Landon. At least two people attending the annual meeting of the CCC at Woodstock last October told me how much they enjoyed reading the first-hand stories of our older citizens.

The 1997 Growing and Harvesting Season

Gone but not forgotten is the 1997 growing season. Despite the very late spring season chestnut plantings grew well from June through September.

Chestnut trees in Ontario blossomed from mid to late July... the latest in the last twenty years. September was cloudy and cool and not a good month for nut-ripening. Several trees generally counted on to produce an annual crop of nuts showed poor pollination and almost a total failure of nut production. Nuts were harvested well on into mid to late October. The overall nut harvest in Ontario was considerably below average.

The 1998⁷ Annual Meeting of the CCC

The Annual Meeting of the CCC was held in the board room of the Ontario Ministry of Agriculture and Food Offices in Woodstock on Saturday, October 18. About 35 people attended.

The program consisted of talks illustrated with colour slides and videos, questions and answers and an opportunity to meet with other chestnut enthusiasts and exchange information.

Dr. Colin McKeen gave a brief history of the CCC, its reason for being and its goals and objectives. CCC Vice Chairman Dr. Greg Boland gave an illustrated exposition on hypovirulence research being conducted at the University of Guelph. He discussed the potentialities of using it for biocontrol of chestnut blight in Ontario. CCC Director Gerry Waldron reported on the existing chestnut trees in Essex County and also showed colour slides of large flowering chestnut trees in southwestern Michigan.

The following three videos were shown...

1. The Chestnut Powerhouse - An ACF Story.
2. Carolinian Flora of Ontario - A Carolinian Canada Film.
3. Trials and Tribulations of Establishing a Plantation of 90 Chestnut Seedlings at Uphill, Ontario in 1996 by Wm. Stewart.

Fellowship was enjoyed around coffee, fresh cider, donuts and cake.

Recent Reports of C. dentata Trees in Southern Ontario

The older literature describes the eastern boundary of the old chestnut belt in Ontario as being near Oakville. Oakville is about mid-distance from Toronto and the west end of Lake Ontario.

In October '97 the editor was directed to a stand of five C. dentata trees at the western end of the municipality. The second largest of the five trees had succumbed from blight perhaps three to four years ago. The remaining four were blight-free. The four healthy trees had diameters at breast height (DBH) ranging from 16 to 58 cm (6.5" to 22"). Three of the four trees were canopy-makers and 16 to 20 m (40' to 60') high.

Another single tree was located farther east on the boundary of the Oakville-Trafalgar Second School property. It is a double-trunked specimen about 20 m (60') high growing luxuriantly on a rich, sandy soil site.

In 1986, there were 49 recorded sites where C. dentata with DBH's greater than 10 cm (4") were growing. In 1997, there were 136 known sites.

The Largest C. dentata Trees in Southern Ontario

The largest C. dentata tree in Ontario has a DBH of 87 cm (31") with a height of about 24 m (75'). It is blight-free and grows in a woodlot west of Burford. The largest blighted tree (The Arner Tree) has a DBH of 89 cm (32") and has a height of about 20 m (65'). Both these big trees are canopy-makers and have suffered some wind damage to their crowns.

The Arner Tree is growing in the Essex County Conservation Area and has been infected with a hypovirulent strain of the blight fungus for more than 25 years.

Both these large trees have been increasing their trunk diameters by 1.5 to 2.0 cm (0.6" - 0.75") annually.

The ages of both these trees has been estimated at about 50 years. They did not exist when the first wave of chestnut blight swept westward through Southern Ontario in the 20's and 30's.

There are six other *C. dentata* blight-free trees in Ontario with a DBH in excess of 62 cm (25").

U.S. (NE-140) Research Group Honoured

The American Chestnut Foundation (TACF) staff, board members and colleagues in the NE-140 Regional Research Committee travelled to Washington, D.C. in June 1997 to be formally recognized for their work on the biological improvement of chestnut. Team researchers received a Co-operative States Research Education and Extension Service Award. This was the Secretary of Agriculture's Honour Award. The award was granted "for establishing innovative and co-operative approaches to lead the effort to restore the American Chestnut in eastern forests".

In 1982, five experiment stations started a research effort largely in response to the discovery of hypovirulence in the chestnut blight fungus. The committee has since grown to include thirteen experiment stations, universities and government institutions. Its research agenda now encompasses not only hypovirulence, but such large issues as molecular biology of the blight fungus, the ecology of the fungus, blight resistance and physiology in the host. (Excerpt from Newsletter TACF "The Bark" Fall 1997.)

Congratulations from the CCC for such a notable achievement. ...The Editor

The 1997 Annual Meeting of the American Chestnut Foundation (TACF)

The 14th Annual Meeting of the American Chestnut Foundation (TACF) was held at Asheville, North Carolina on November 1 and 2, 1997. One hundred and seventy members in attendance witnessed the breathtaking beauty of the Biltmore Estate. Attendees took part in a demonstration planting of hybrid chestnut trees representing advanced breeding lines. In all, TACF Biltmore planting will consist of 2000 second generation backcross trees.

Dr. Fred Hebard, tree breeder at TACF farm Headquarters, Meadowview, VA, believes the blight resistance breeding program is halfway to completion.

International Chestnut Symposium

The second international symposium on chestnut is being held in Bordeaux, France, October 19 - 24, 1998. The last international conference was held in West Virginia in 1992. The congress will address chestnut biology, propagation, breeding, plant protection, orchard management, harvesting, processing and marketing.

CCC Sets Up a Computerized Program of New Plantings in Canada

In a computerized program begun in January by the CCC all plantings of *C. dentata* made since 1989 are being recorded. The listing includes such items as seed source, where and by whom the seedlings were grown, year of planting, numbers planted and their location (county, township, lot and conc. nos., etc.). To date, the listing includes 230 planting sites. Probably another 60 to 70 will be added in 1998. The listing will probably yield the planting success rate and eventually may indicate the germplasm best adapted for the various climatic zones.

A Clarion Call to Protect Plant Life

The first comprehensive worldwide assessment of plant endangerment was made public early in April in Washington, D.C. According to the report at least one in eight plant species in the world... and nearly one in three in the United States... are under threat of extinction. "The message... should be distressing to us all," said Robert Fri, Director of the Smithsonian Institute's National Museum of Natural History. Other plant scientists duly recognize the urgent need to step up our commitment to action to protect what one called "the bottom line of the food chain".

While endangered mammals and birds have commanded more public attention, it is plants, botanists say, that are more fundamental to nature's functioning. They undergird most of the rest of life by converting sunlight into food. Plants are the building blocks of our food.

Plant species are the very warp and woof of the natural landscape, the framework within which everything else happens. (Excerpt from the New York Times Service as reported in the Globe and Mail April 9, 1998.)

Trees, as an integral part of the plant life complex, are a very important component. They are recognized as being effective in reducing air pollution. Yes! There is a genuine place for the noble chestnut. ...The Editor

Recent Publications

Boland G. J., Melody S. Melzer and Diana L. Mooij, 1998. Biological Control of Chestnut Blight with Hypovirulence in Southern Ontario. 1994-97; Final Report to Endangered Species Recovery Fund of World Wildlife Fund. Environmental Biology, University of Guelph, Guelph, Ontario.

1998 CCC Annual Meeting

Several members have requested that part of the meeting include a field trip to allow a viewing of one or more mature chestnut trees. If workable, the forenoon may be devoted to a field trip and the afternoon to indoor presentations and discussions. Further details will be announced later.

CCC Directorate

The nominating committee may be looking for one or two new directors this autumn. Also, CCC's secretary-treasurer, Clement Fisher, will be stepping down at the end of CCC's fiscal year, October 30, 1998. There is a particular need for personnel with computer knowledge for handling assignments of secretarial-treasurer duties. Also, new formatting of the newsletter is being anticipated. Please convey to the secretary-treasurer your desire and willingness to serve an organization dedicated to the restoration of the chestnut tree.

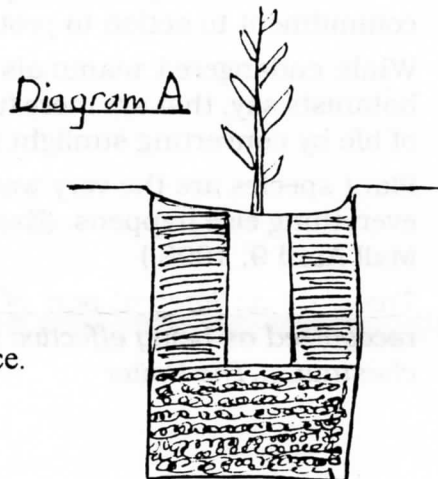
Enclosure

A guideline for "Planting and Care of a Chestnut Seedling and Young Tree".

PLANTING AND CARE OF A CHESTNUT SEEDLING AND YOUNG TREE *

1. Dig a hole twice as deep as the length of root system. Backfill the lower half with loose soil. Tamp down lightly and water well. See A.

2. Carefully remove the bottom of the milk carton, or all of the carton and set the seedling in the hole. If bare-rooted, plant seedling similarly.



3. Complete the backfilling, leaving a shallow depression at the surface. Tamp down firmly to give the root system anchorage. If the carton has not been wholly removed, trim down the top so that none of it projects above soil surface. Water thoroughly. This expels air pockets around the roots.

4. Young trees need protection from rabbits, deer, mice, groundhogs, and lawnmowers, etc.

5. On the north side of the seedling install a wooden stake (tobacco lath, broken hockey stick, etc.) Remove the top and bottom from a 2-litre plastic pop bottle. Place the bottle over the seedling and staple the bottle to the stake.

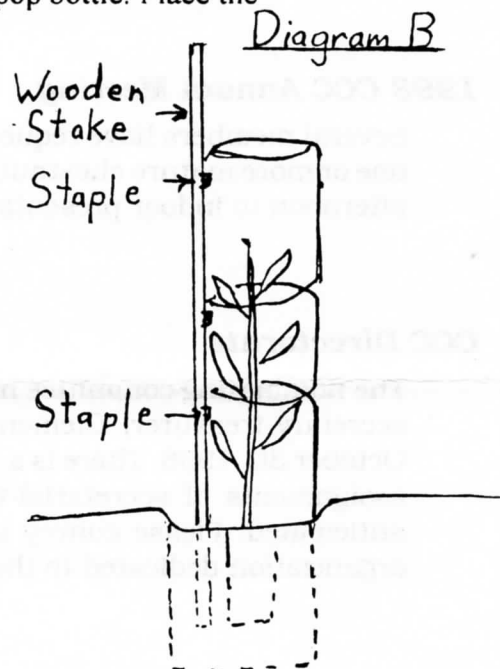
6. Additional bottles may be added as the seedling grows higher. See B.

7. Plastic tube protectors, or tubes made out of wire mesh may be substituted for pop bottles.

8. If the soil does not receive 2.5cm (1 inch) of rain a week throughout the summer, apply water to make up the deficit.

9. Do not allow weeds or grass to grow within 0.6 meters (2 feet) of the tree. This requirement applies until the tree is 2 m. (6 feet) high.

* Instructions apply to bare-rooted seedlings or transplants grown in 1L or 2L milk cartons or similar containers.



These instructions have been slightly modified from those developed by Don Fick, Aylmer District Secondary School as guidelines for his students.