The

Canadian Sweet Chestnut

- Journal of the Canadian Chestnut Council

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Peer Review Committee Report

The CCC Peer Review Committee presented its report to the Chairman in November, and he in turn distributed copies to the CCC Directors at their meeting 22 November.

Dr Pengxin Lu (Chairman), Dr Wade Johnson and Dr Frank Marks very kindly agreed to conduct the Peer Review when asked by Dr Colin McKeen and Dr Terry Anderson early in 2008. They proceeded to examine the CCC's Constitution, its hybridizing, planting and testing procedures, fund raising program and many other aspects of this organization. Some Canadian Sweet Chestnut back issues were included in their studies.

The study report is being examined by the Directors. It will be discussed in January, when it is hoped the Peer Review Committee can meet the Board to clarify any outstanding questions. In the interim, some highlights of their written report are included here to present the thrust of their findings to all CCC members.

The Review Committee is optimistic that the CCC's breeding goals can be realized within a relatively short time period, provided that major resistance genes are confirmed in the backcrossed hybrid progeny of the current generation or in the progeny of the generation that follows intercrossing between selected individuals from the current progeny.

- The standard set to develop blight-resistant hybrid trees of at least 92% Canadian origin may be unnecessarily costly to achieve based on the available breeding materials.
- Results of the preliminary breeding tests did not show significantly stronger bloight resistance in the hybrid progeny than in the pure Castanea dentata selections, which may indicate that hybrids do not offer significant resistance advantage - at least for the current generation hybrid progeny.
- The recovery of resistance and confirmation of major gene resistance in the hybrid progeny are high priorities, and ultimately determine the quality of the hybrid breeding material and the likelihood of future success with the hybridization breeding approach.
- In addition to pursuing the current breeding program, it is recommended that the CCC develop a working relationship with the American Cherstnut Foundation (TACF) to evaluate some of their lines under Ontario conditions as well as working with them to develop lines adapted for this area.
- The breeding strategy approaches used by TACF for developing blight resistance may be helpful to the CCC. The TACF approach is proven, effective, and practical, and may prove a faster, more cost-effective way for them to develop lines adapted for this area.
- The CCC might also consider engaging government agencies and nut and timber industries to secure more resources to support its long-term breeding program.
- The Review Committee is optimistic that the CCC's breeding goals can be realized within a relatively short time period, provided that major resistance genes are confirmed in the backcrossed hybrid progeny of the current generation or in the progeny of the generation that follows intercrossing between selected individuals from the current progeny.

Peer Review is intended to apply outside, impartial scrutiny to a scientific project to ensure that it undertakes a viable approach. The Committee must examine critically everything that the CCC is doing to ensure that it will probably yield the desired goals and is adequately supported.

It is hoped that the next meeting of the Board of Directors, during which the Peer Review Committee can exchange views with the directors, will reassure the Committee as to the effectiveness of the CCC's plans and activities, and that the recommendations can be elaborated to modify future work as needed.

Have you renewed your membership?

The Canadian Chestnut Council

The CCC is a scientific and charitable organization with the mission to restore the American chestnut. All its officers volunteer their services both in the field and at the desk. The CCC annual meeting, the web site and this Newsletter dispense information to generate support for saving and restoring this once-important forest tree.

Editorials

Annual General Meeting

We were pleased to be able to attend the annual general meeting on 18 October at Tim Horton Children's Camp, Onondaga Farms. A substantial group participated and made it an event to remember.

It is hoped that the young children found Kelly Schafer's planned amusements interesting. Some very good Inukshuks were built, thanks to the Tim Horton Elves who conducted this activity.

For the benefit of future annual meetings, those of you who participated can help by letting us know the good and bad elements so we can improve. Emails and smails are always accepted by your humble scribe.

New Directors and Executive

Three kind gentlemen stepped forward at the Annual General Meeting to accept director positions. Paul Faires, David Depuydt and Ron Casier will add intelligence and energy to our Board of Directors.

It is our practice to present biographies of our new directors in these pages. As soon as photos and career sketches of these men can be created, we will do so.

You will notice also some changes to our Executive slate, as pictured to the left of this page. We\ have gained new ideas without relinquishing the experience of our older directors.

The Peer Review

Scientific organizations commonly seek review of their concepts, theories and programs by outside observers, to ensure that the principles engaged in the research have not deviated from the goals or compromised the integrity of the work.

The Canadian Chestnut Council, having encountered differing views on how to restore the American chestnut tree to the forests of Canada, felt obliged to engage such a review. Dr Colin McKeen persuaded three highly respected scientists familiar with the procedure to undertake a review for us.

Their report was submitted in writing to the Board in November for consideration. Some aspects of their report have raised additional questions among your directors, as is to be expected when a lengthy scientific report is condensed to a few pages.

Fortunately, a budget provision was made to bring the Board of Directors and the Peer Review Committee together early in the new year. It is hoped that the meeting can be held in late January. When that is done, the Board's questions can be answered and a more complete report of the review will be published in our next issue.

Renewals

If you have not renewed your subscription for 2009, please do so. The CCC relies heavily on subscription fees to communicate with the members via this newsletter, and to maintain our orchards.

Donations also help, and will not be refused regardless of size.

Thanks!

Correspondence

From Calgary, Alberta

Just to let you know all of the seeds which accompanied me back to Calgary last fall *[from the 2007 AGM - Ed]* have been distributed and planted. Mr William Dyck of Calgary was very excited to receive the seeds and he has planted some in his yard in Calgary, which is an amazing collection of trees, and his property in the interior of British Columbia. Two sets of seeds have been planted in a different area within the city of Calgary and the last in an area with its own mini climate southwest of Calgary.

In all probability the chestnut tree I was referring to will turn out to be an Ohio buckeye chestnut of which there are three or four within the boundaries of the city of Calgary. The identity of the tree will be confirmed once Spring arrives some time in late May. We are a bit slow out here. I will keep you posted.

David Boland

That letter is testimony to Canada Post's persistence - it was returned to me last week because of my not having a valid address for you. It has only taken since February to make its way back to me. *[In September! - Ed.]*

Of the seeds I returned home with last fall there is some good and some bad news. All of the seeds I planted germinated but did not manage to get above the soil line. Our Spring was a little unusually wet this year. Only one person who had seeds distributed to had any luck and she managed to germinate and grow to heights between six and ten inches just about every seed. She will prepare a brief written summary of what she did and some pictures will be included at a later date.

The cheque is to renew my membership and to contribute to another four bags of seeds which could be given to my brother. I will be visiting him later in October.

David Boland

I hope that you received your seeds. If not, please advise and we will try to do better. - Ed.

From the Secretary

Dear Douglas Campbell:

I am instructed by the Board of Directors of the Canadian Chestnut Council to thank you for the gift of edible chestnuts for the Annual General Meeting. Thank you, on behalf of the whole Board, for the unique opportunity to sample the future fruits of the work of the Canadian Chestnut Council.

- C Hooker

From North Bay, Ontario

In response to the inquiry about potential to grow chestnuts in Manitoba, I would like to pass on something that helped our trees in North Bay. We now spread a thick layer of leaf mulch widely over the entire root area every fall. This prevents dieback of young branches. - Sue Milter

From Nackawic, New Brunswick

Our two trees on our properties in the northwestern part of the province Plaster Rock) have not borne any nuts yet. We now have property in Nackawic and would be willing to harvest a few nuts to start!

Thank you. I look forward to learning more about these wonderful trees. Susan Duff

From Manitoba

As of October 12, the heights of our 3 Lititz, PA chestnuts are as follows:

3", twin stems
5", multiple stems
6.5", single stem

I have pulled back the mulch from the tree stems for the winter so no rodents will winter there. Are there any other things I should do for them for winter?

Also, I should like to volunteer to do something along the lines of historical research for the CCC...That kind of thing is important for presentations to children.

Let me know if you are interested, and if so, at what email address I could send information to, or if you wanted it by mail. - David Sander-Ladd

davidsanderladd@gmail.com

[Some chestnuts from Pennsylvania were kindly distributed at the 2007 AGM by one of our members. As David's plants are so successful - even in Manitoba - I have included his email address so other members can seek his advice. - Ed.]

From Salt Spring Island, BC

Recently a horticulturist positively identified an American chestnut growing on a commercial site here on the island. An acquaintance working on the project told me about the tree of which I've recently acquired about a dozen small saplings (growing under the tree) and gathered about 50 nuts. The tree is about 60' in height and quite healthy looking. My plan is to cold stratify the nuts in the fridge and plant them next Spring. I'm assuming that the chestnut blight either never reached our location or the tree is resistant.

Is there anything else I should know re: planting the trees/ seeds, having the nuts/tree tested, etc? - Derek Burgess

The American chestnut doesn't like grass competition and needs a soil pH of 4.6 to 6; so you must either mulch an area of about a meter around the trunk or spray Roundup about twice a year (shielding the tree) until the tree can sustain itself. You must also spread an acidifying treatment such as Mir Acid or sulfur powder; if the leaves turn yellow it is likely a sign of too high a pH. Keep the mulch away from the trunk to deny rodents a shelter.

The tree is not self-pollinating; so there must be other chestnuts near the nut-producing tree. - Ed.

The American Chestnut, its Near Demise and an Attempt to Restore it

by Dr Colin D McKeen

I am one of the few survivors of the pre-blight American chestnut era in Ontario. The following account relates several of my personal experiences of the chestnut saga.

Introduction to the Chestnut

In the autumn of 1928 I enrolled at Strathroy Collegiate Institute. Between afternoon classes I can recall chewing on raw chestnuts gathered at nutfall under native trees, which were brought to the school by a classroom chum, Bill Jay. This was like an annual autumn treat for many humans as well as for blue jays, deer, turkeys and other wildlife.

Blight Enters southern Ontario

Four years earlier (in 1924), the destructive chestnut blight had crossed the Canadian/US border at Niagara and was spreading westward into southern Ontario at a rate of about 50 km per year. By the mid-thirties, the blight had advanced into the counties of Wentworth, Norfolk, Brant and Elgin. By the early forties the blight had swept entirely across all chestnut-growing areas and even westward beyond Windsor in Essex County into Michigan.

Hands-on Study

My first "hands-on" experience with the blight was in 1938 in my first year of graduate school at the University of Toronto. In the first seminar on plant diseases conducted by Professor DL Bailey, I can distinctly recall his emphatic statement, "You may never see a non-blighted, healthy chestnut tree growing again in Ontario." Professor Bailey was slightly wrong - but not by much!

In its devastating sweep across southern Ontario, the blight destroyed all stands of chestnut trees; none escaped.

In the entire Appalachian area of the USA , blight was pronounced the worst disaster in the annals of forest history.

Concern about the Disaster

In 1948, President Sherwood Fox at the University of Western Ontario, London - a tree lover and amateur botanist - wrote a concise and most impressive record of the destruction of <u>all</u> stands of chestnut in southern Ontario, and the threatened demise of the *Castanea dentata* species. No one had pronounced the all-pervasive doom and gloom for the chestnut tree more realistically and emphatically than President Fox.

Effort to Regenerate Itself

Despite the death of above-ground growth, life continued to exist and flow in the below-ground root collar cells of the chestnut tree. The attempted regeneration was characterized by continuing cycles of stump shoot growth, re-infection and death of all the sprouts.

In 1946, after World War II service, I accepted a position in plant pathology at the Pathology Laboratory, Harrow, Ontario. During my 27 years of research experience there, I saw - and had pointed out to me by several senior colleagues - numerous examples of remnant chestnut stumps with their accompanying blighted sprouts. With this recurring phenomenon there was no evidence that any regeneration of the chestnut was getting beyond the blighted-sprout stage.

Introduction of Foreign Germplasm

In the 1950s an interesting event occurred. An enterprising real estate agent, a next-door neighbour, brought a few Chinese hybrid chestnut seedlings to Harrow and convinced at least six local residents to grow them. Successful establishments occurred at all planting sites. In some years, winter dieback occurred. By 25 years later, at least four of these plantings had produced nut harvests.

During the 1960s and 1970s, other small numbers of Chinese hybrids had been planted in southern Ontario in the Niagara area and Norfolk and Elgin Counties. A trial planting was made in each of Grey and Bruce Counties.

Since the 1970s and 1980s, two Niagara nurseries annually sold chestnut seedlings containing US and Oriental germplasm. These seedlings were planted in southern Ontario and beyond. Furthermore, the Society of Ontario Nut Growers (SONG) established a few nut plantings including chestnut. One such planting was in the Island Reservoir Conservation Area at Orangeville, Ontario. At least some of the plantings containing Oriental germplasm have become established as an integral part of the chestnut landscape in southern Ontario.

Arner Chestnut Mystery

In 1966, a second important event occurred in the chestnut saga. I learned that there were two native chestnut trees found growing on the south bank of Cedar Creek in what later became the Essex County Conservation Area, near Harrow. These two trees, with 20-cm and 36-cm trunk diameters respectively, were thought to have been blight-free at the time of their discovery. Thirteen years later the larger tree, now a sole survivor, was found to be infected with a hypovirulent strain of the blight fungus. This tee became known as the "Arner Chestnut." Fifteen years later, this Arner chestnut succumbed to the blight, but in 1983 it triggered the start of my research on the hypovirulence phenomenon.

Research on Hypovirulence

Hypovirulence is caused by the presence of a virus(es) in the makeup of the causal blight fungus. The virus causes a "sickness" in the fungus, reduces its virulence and slows its rate of growth. It is not the purpose of this account to dwell upon research into hypovirulence conducted by myself and in co-operative efforts with Dr Greg Boland and his graduate students at the University of Guelph. I can summarize by saying that research on hypovirulence has attracted the interest of many scientists working in both North America and Europe. Thousands of hours of research time have been spent by these scientists on this subject. It was envisioned as a biocontrol agent. If the appropriate fungal strains are used, virulent strains can be converted to ones of lesser virulence, which may prolong the life of a blight-infected tree.

Blight Resistance Breeding

Because no adequately satisfactory means had been discovered of controlling the blight fungus in North America, researchers in the USA re-established a new breeding program in 1992. In the millennium year of 2000 the Canadian Chestnut Council (CCC), founded in 1988, considered it advisable to start its own breeding program. Once again it is necessary to summarize.

Dr Adam Dale, of the Department of Plant Agriculture, University of Guelph, was invited to act as a plant breeder to the CCC project. Dr\ Dale drew up a plan largely based on the current US backcross breeding plan. A Grant-in-Aid research agreement was negotiated with the University of Guelph by the CCC.

A large funding grant was obtained from the Ontario Trillium Foundation for three years (2001-4), and was renewed for 2005-8.

In 2001, chestnut pollen was brought into Ontario from the Connecticut Experimental Station thanks to the generosity of Dr S Anagnostakis. With the help of many local volunteers, twelve native "mother" chestnut trees in southern Ontario were pollinated. More annual pollinations were conducted during the three following years. Successful nut harvests resulted, establishing a good start to the breeding project during the current decade.

Field Plots Established

Through generous gifts of acreage made available by Tim Horton's Children's Camp Foundation near St George, Ontario. and Harley Hotchkiss's River-bend Farms near Aylmer, field lots for growing chestnuts were established. They contain chestnut germplasm available for blight-resistance testing.

Public Relations

During the current decade the CCC realized a need for more attention to be devoted to public relations. Consequently, an enthusiastic young candidate was appointed to strengthen this effort.

Practical Problems

It was in the applied aspects of implementing the breeding plan that great challenges were encountered by the CCC. As an old adage goes, "The Devil is in the details."

Germination and early growth of chestnut seedlings, either in greenhouses or in field plantings, require unique cultural practices and expertise. Herbicide damage was found in both plots in 2006. Damage from deer browsing has not been entirely eliminated despite best efforts to prevent it. These setbacks have not been completely overcome by alternative approaches. Research is not a game of tiddly-winks.

Peer Review

At the 2007 Annual General Meeting a motion was passed by the membership to appoint a Peer Review Committee. Its role was to examine the entire plan of operation to which the CCC has set its hand, and to offer suggestions. A Peer Review Committee was appointed and has announced anticipated submission of its report in November 2008.

Some deliberations in recent CCC directors' meetings resulted in highly polarized viewpoints. This problem is not unexpected when dealing with a cross-pollinating host like the chestnut tree and a pernicious, shifty pathogen like the blight fungus.

Other Queries and Comments

Does the remnant scattered population of native chestnut in Ontario now contain any significant resistance to the blight fungus? This continues to be a moot question among scientists and chestnut enthusiasts!

During the last 20 years, about one dozen large chestnut trees with typical *Castanea dentata* morphological features were found growing in somewhat isolated areas across southern Ontario. Many of these specimens attained trunk diameters of 50 cm or more. Most of these trees either succumbed during the last ten to 15 years, or are now dying from an attack of blight. None of these trees had an origin predating 1950. This date has been taken as the finite end of the major thrust of the blight epidemic.

This revelation of the unrelenting blight potential supports evidence that no significant resistance has yet appeared in the native germplasm. This fact strengthens the hand of scientists dedicated to securing blight resistance from the Oriental chestnut species.

Since the expiration of a large financial grant from the Ontario Trillium Foundation (OTF) in 2008, a major time-consuming effort by the CCC has been devoted to fund-raising. Large block funds like those previously obtained from the OTF have not been forthcoming. For the foregoing reasons, a comprehensive review of the CCC's chestnut restoration program seems necessary.

Final Reflections

The CCC should re-establish its previously held loose affiliation with The American Chestnut Foundation (TACF) and keep the co-operative exchange of communications flowing at a productive level. This move would be in harmony with a new ethos now unfolding in the development of drugs and medicines in the medical field. The current patent system is witnessing the rapidly diminishing discovery and production of new medicinal tools. The process of patenting operates under a high level of secrecy. In all its powerful outreaches, secrecy is the very opposite of openness upon which the great forward strides of science were founded. The University of Toronto is becoming a shining beacon among the universities of the world by establishing a new institute to open up the field of research for developing new potential drugs and medicines. **Scientific collaboration and co-operation at management levels is the "watchword."** The CCC should likewise be at the forefront of this approach.

- CD McKeen

Murray's Garden Centre

Murray Alward can grow a tree from anything, in anything. He is, after all, a professional tree grower in his capacity as Manager of Riverbend Farms, which distributes seedlings throughout North America and beyond; so his expertise is extensive.

We have taken the liberty of creating a column specifically for Murray to reveal his secrets, and hope for frequent contributions from him. Here he offers planting ideas that he has tested and found helpful. - Ed.

Fall Planting Chestnuts

I have come to the conclusion that fall planting, about the middle to last of September, works. This is when the leaves begin to turn off, but the roots will continue growing in the warm soil. Usually we have less stress with shorter days, cooler weather and hopefully more moisture. Leaves are not about to demand the plant's resources. Roots can establish before freeze-up, preparing for a surge next Spring, pushing top growth the following season.

A larger transplant works very well, fall planted.

Dig a $10 hole for a $5 plant, remove the container and set in the cavity, backfilling with good soil. Place a white drainage tile at the bottom of the trunk, 18-20 inches high, to fend off mice and rabbits. White is preferable to black; black can get too hot next Summer. Stake, if required, with a 6-foot stake. Tie with poly baler twine with a figure-8 connection to prevent bark damage. Staple on the tree, about 4 feet up, a single fabric softener sheet - eg, Bounce - to keep away deer. Change this soapy-smelling fabric every three weeks or so.

A 20-liter pail with several holes in the bottom can be used for an effective drip irrigation system.

Don't forget to change your Bounce sheet, and - if particularly dry - add water with the drip bucket until freeze-up.

Stand back and watch your chestnut grow! - M Alward

The Challenge of Chestnut Cuttings

Starting in 2006 I rooted a few chestnuts from cuttings. The cuttings came from vigorous juvenile growth from container plants forced from March to May 1st in our Riverbend greenhouse, providing early tender cuttings.

Approximately May 1st, I take cuttings generally from a side branch, disregarding the soft tip and extreme base, using the tender firm centre of the branch with four leaves. I cut the top three leaves in half, strip off the bottom leaf, make a cut immediately under the node and apply hormone - either # 3 Talc IBA or 1% IBA liquid.

The cuttings are stuck with the stripped node inserted in a flat or tray of perlite and the three half leaves up. I place the cuttings in a home-made humidity case consisting of clear poly draped over 30-inch or so high hoops. The bottom of the case is lined with 1 inch of slightly moist peat as a landscape fabric liner for some drainage.

Rooting - if it does root - will take 4 to 6 weeks.

Cuttings have varying degrees of rootability, from individual trees that root readily to others that are nearly or totally impossible. My tests show that our American chestnuts are tough to root, hybrids root better and Chinese most easily, generally speaking. We need to find the exception.

Cuttings root slowly and grow slowly. Overwintering needs special care with minimum heat necessary to maintain 32-34 degrees F (0-1 degree C). I use a minimum-heated overwintering polyhouse at Riverbend Farms.

I have a clone named "Mutt" from a seedling that may be a hybrid. I call it "Mutt" because I'm not positive of its lineage. However, Mutt has rooted each year and is my guinea pig for experiments.

Observations

1. Early cuttings from some chestnut trees root. (See the photo in the last issue of the *Canadian Sweet Chestnut*.)
2. Juvenility, hormones, humidity, perlite and bottom heat of 70 degrees F are essential.
3. Cuttings root poorly, grow slowly and overwinter with difficulty.
4. The rate of growth is slow the next two years - at least 1/3 to 1/4 as fast as a seedling or a graft.
5. Rootability varies from tree type to tree type.

Extending the photosynthesis period with light on a timer might make the cuttings accelerate. This is an area for further work.

I hope that this whets your appetite for this special area of chestnut propagation! - M Alward

Editor's (highly inexpert) comment: One great benefit of cloning through rooting could be the exact DNA reproduction of trees found to be highly blight resistant with the physical characteristics of the American chestnut. We look forward to more data arising from your study, Murray.

Another Big Chestnut Tree Succumbs to the Blight

The adjacent photograph shows one of the largest American chestnut trees (*Castanea dentata*) growing in southern Ontario in recent years. In 2007 the tree had a trunk diameter of 67 cm (27 inches) and a height of approximately 22 meters (65 feet. It had been a canopy maker for several years.

This tree showed no recognizable symptoms of blight in 2007. In 2008, several branches in the crown either failed to leaf or showed small leaves. A few weeks later the affected branches produced epicormic shoots - an early symptom of blight infection.

This chestnut tree grows in a woodlot on Doug Pearsall's property, near Boston in Norfolk County. The tree is estimated to be somewhat less than 50 years of age.

In 1985, three years before the CCC was formed, Harold Pearsall, Doug's late father (then an 80-year-old resident), told me of finding this tree a few years earlier. His attention was drawn to the tree when tramping through the woodlot after leaf fall. He remembered the shape and texture of chestnut leaves from boyhood years. A young chestnut tree was soon located near the fallen leaves.

Mr Pearsall Sr was familiar with many aspects of the legendary chestnut from pre-blight, blight and post-blight years. As a young man he had hauled chestnut logs to a sawmill with a team and sleigh.

From annual autumn visits to this woodlot tree, Mr Pearsall was able to harvest many crops of nuts. In the 1980s he planted nuts and was able to start a small orchard of more than a dozen trees near the family residence. These trees grew well and, during the last ten years, produced crops of nuts. Most of the trees in this orchard have developed blight and are now either dead or dying.

This is another interesting episode in the saga of chestnut blight in Ontario. - CD McKeen

AMERICAN CHESTNUT SITE RECORD

Castanea dentata

The CCC wants to know where the chestnut trees are. You can help by submitting any of the listed information you can provide.

Owner's name, telephone, e-mail:

Street or rural address, township, county, province:

GPS or other location data:

Number of American chestnut trees:

Other environmental data:

Send to any CCC director. Thanks!

Happy 20th Anniversary, CCC!

Report of the Annual General Meeting, Onondaga Farms, 18 October, 2008

Chairman Dr Terry Anderson read his annual report. In answer to questions he said that:
a. 2020 is the intended date when blight-resistant chestnut trees may be available for distribution;
b. Canadian chestnut trees are used for backcrossing because they are more likely to withstand Canada's climate than US-grown trees; and
c. volunteers are needed inMay and October.

Three new directors were nominated and agreed to stand for election: Mr David Depuyt, Mr Paul Faires, and Mr Ron Casier (of the Elgin Stewardship Council). T Anderson moved, seconded by T Welacky, that the named candidates be elected.

T Anderson having to relinquish the Chair, D McKeen accepted the appointment. G Collin accepted the position of Treasurer from D McKeen.

Dr C McKeen reported on the history of the American chestnut and the Canadian Chestnut Council. He said that the CCC does not believe that hypovirulence research offers an adequate means of protecting the chestnut tree against blight; nor does the CCC believe that there exist in southern Ontario any native trees that contain resistance to the blight; it plans for hybridization to provide the resistance.

Forests for Life

Mr David Depuyt, Coordinator of the Oxford Stewardship Council, described the subject program. "Forests for Life" has several objectives: education tospread interest in planting, mentorship to encourage diversity, and growing trees. 100 acres of trees have been seeded directly. The program includes forecasts of seed production, and seed collection, cleaning, storage and distribution. The program's experience is that direct seeding is more effective than potting seeds and then planting seedlings. Roadside plantings have been conducted as well.

Other Activities

Chestnuts were roasted during the afternoon session and distributed to the members. (They were delicious.) A Tim Horton's birthday cake was cut and distributed in honour of the CCC's 20th anniversary. A bucket draw was held for many donated gifts. Several young children attended with their parents; they were engaged in Tim Horton Children's Camp activities, including construction of Inukshuks and a farm tour. The CCC's Onondaga Farms tree site was toured by the members.

Another happy winner of the bucket draw!

Membership

Membership fees and donations are tax deductible.

Please make all cheques payable to the Canadian Chestnut Council

Membership Renewal:
Annual subscription = $15.00 $_____

Donations in excess of the annual subscription will be recognized in the Newsletter in the following categories. (Requests for anonymity will be honoured.)

Gold Leaf:	$1,000 or more
Silver Leaf:	$500-$999
Bronze Leaf:	$250-$499
Green Leaf:	$100-$249
White Leaf:	Less than $100

Donation: $_____

Total enclosed: $ _____

Volunteers

We need your help! As our program grows and our activities expand, we very much need the talents and skills of our members. If you would like to contribute your skills, please tell us. We start pollinating in early summer!

I'm interested in (check all that apply):

____ Membership
____ Publicity
____ Fundraising
____ Library research
____ Field work
____ Other: _____

Return your completed form to the Secretary:

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