The Canadian Sweet Chestnut

-Newsletter of the Canadian Chestnut Council-

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http://www.canadianchestnutcouncil.ca

Council Mission - to help restore the American Chestnut to the areas of Canada it once occupied.

Current Priorities

1) Breeding resistance

2) Breaking Isolation / Establishing Gene pool Nodes

3) DNA Analysis

4) Survey of existing Chestnuts in the wild

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2023 CCC Field Summary (Dragan Galic)

a) Breeding Resistance

Breeding native trees that show visible tolerance to blight.

Inoculation – 774 trees inoculated but only 150 trees indicating blight infection. There is concern that the University of Guelph inoculant has lost its potency. Dragan to provide new sample of blight from infected trees at Onondaga Farms for lab preparation.
Pollination – pollinated 2nd generation trees (7) to get 3rd generation nuts.
Harvest – 3004 native nuts, 768 third generation nuts, 1100 open pollinated plants, 249 nuts for the large nut size pollination.

b) Establishing Gene Nodes for seed production

With the approval of landowner, plant up to 1700 chestnut trees on property to maintain gene pool of native Chestnut trees. To date, we have established 64 gene nodes which includes 14 added in 2023.

c) Breaking Isolation

Process of planting approx. up to 10 American Chestnut saplings around isolated trees found in the wild. In this way, our hope is to encourage fertilization and production of nuts on the isolated tree.

To date we broken isolation on 72 trees in the wild adding 5 more trees added in 2023

Update on the status of the GMO American Chestnut Darling 58 (Ron Casier)

On December 8, 2023, The American Chestnut Foundation (TACF) has discontinued its development of the genetically engineered (GE or genetically modified) American chestnut tree called “Darling 58”. The announcement comes as TACF revealed its findings that this GE tree does not work. It is not blight-tolerant as promised, and it is short and weak. However, the Syracuse University of New York is still seeking approval from the US government for the release of Darling 58 into the wild.
TACF developed the GE tree Darling 58 with the State University of New York College of Environmental Science and Forestry (SUNY-ESF) and advocated for planting this GE tree in the wild to “restore” the American chestnut to the forests of eastern North America.

TACF now reports, “analysis indicated striking variability in Darling trees’ blight tolerance, significant losses in growth competitiveness, reduction in overall fitness including stunted growth, leaf browning and curling, and increased mortality.” Their findings revealed that the tree did not work. The TACF also discovered an identity error in that Darling 54, a significantly different GMO tree, has been utilized in the seven years of research and analysis under the Darling 58 development program. TACF has created some new guiding principles for science and restoration efforts including: “Rigorous testing for efficacy throughout the life cycle of the tree life cycle (both in the lab and greenhouse, and in the field) prior to regulatory submission”. Despite this, SUNY-ESF continues to seek approval for release from the United States’ American Plant Health Inspection Service (APHIS). The Canadian Chestnut Council and the Canadian Biotechnology Alliance Network have made a joint submission in opposition to the continued approval process of the flawed Darling 58 release into the environment.

Natural Medicine for Plants: New Hope for the American Chestnut?

(Susan Ratliff, Organic Master Gardener)

A few years ago, I was able to realize a lifelong dream and plant a small orchard. The first tree I sought out? The American chestnut. Of course I anticipated their unique beauty, nourishing food, wonderful wood for projects, and a connection to the poignant history of the species. But I had another motive: after years in alternative medicine, I’ve joined the growing movement around the world — farmers, agriscientists, physicians and others — experimenting with the use of certain traditional medicines for plant diseases. It’s an emerging field and we have much to learn, but have seen some excellent results: from vineyards in South Africa and Europe to farms in Mexico, China and Australia, from coffee plantations in Tanzania and Honduras to backyard gardens the world over. I reached out to the CCC seeking collaborators in testing this method in diseased or threatened chestnut trees here in Canada.

The focus of this research is minute-dose foliar, stem or root application of mineral or plant extracts. In my own garden to date my best successes have been with rust on pear; bacterial wilt on cucumbers (an astonishing total cure); very enhanced resilience to extreme cold and wind conditions in fruit trees; and prevention of snail and slug damage (near 100% effectiveness on most plants). In other cases I have had more difficulty in choosing the appropriate remedy and therefore didn’t see the results I hoped for; there are hundreds of medicinal options and applying them to plants requires a significant mental shift. It’s a steep learning curve!

How does it work? The most current understanding of the mechanism of these ultra high dilution (UHD) medicines is intimately related to the evolving science of water. The work of Dr. Gerald Pollack, Nobel laureate Luc Montagnier and dozens of others worldwide has confirmed that water creates a highly structured matrix within and around living cells, which has been described as a crystalline gel-like state. This structure contains information in the form of nanoparticles, with profound functional ramifications. These results are tremendously important for many industries, but perhaps nowhere as urgently as in medicine and agriculture.

Hippocrates himself was the first recorded Western physician to discuss the peculiar, paradoxical properties of the *minimal* dose. The modern science of homeopathic medicine has developed this idea further over the last 200 years and established a rigorous protocol for making the medicines. Although it has been sidelined in North America in favour of the pharmaceutical model, homeopathy has become the primary medicine of choice for more than 250 million people in other parts of the world. Ontario has recently recognized and regulated its practice, an encouraging step, since distorted media coverage has resulted in great public confusion about alternative medicine. The effectiveness in practice for human and animal patients, and the absence of "side effects," as well as advances in soil science, led to the current revolution in agriculture. Universities on almost every continent are adding curriculum to reflect this. A quick Google search will lead you to intriguing studies on the fourth state of water, regenerative agriculture and agrohomeopathy.

I believe carefully applied UHD therapy will provide solutions to many of the dilemmas of both agriculture and medicine. The toxicity and collateral damage of status-quo chemical interventions, no matter what the species, is unsustainable. Agrohomeopathy is affordable, accessible, non-toxic and does not require reinventing the wheel for each species or each disease. Perhaps most importantly, what's involved is healing on an epigenetic level: when we discover the right medicine for the problem, we can reasonably expect to see increased resilience in subsequent generations. And ultimately health is always a property of the resilience of the organism.

In this brief introduction I can hardly scratch the surface of such a vast topic, but I warmly invite you to email me with questions or observations at *susan@perennialabundance.ca*. And if you have infected chestnut trees, I would welcome the opportunity to work with you to set up an experiment!

Late Winter 2024 Nut Planting (Chuck Beach)

In the fall of 2023, nuts from the Canadian Chestnut Council's plantations were collected. They have been stored at the University of Guelph's Simcoe, Ontario Research Station in a fridge in order to stratify.

February and March are months, volunteers gather to plant the nuts in order to have seedlings ready for planting in 2024. Dragan advises that over two Saturday sessions 4,696 nuts were planted

Gord Chinnick and Greig Garland

Dragan Gaic and Tony Jovan

Ron Casier and Kevin MacGillivray

CCC Achievements Recognized

The Canadian Chestnut Council was recognized for its stewardship efforts at the annual meeting of the Catfish Creek Conservation Authority

Annual Membership Fees

Membership fees for the Canadian Chestnut Council are due as of the Annual Meeting in October. Only members in good standing have the ability to vote at the annual meeting, be apprised of events and receive the quarterly newsletter.

At last year's annual meeting, because of absenteeism, the Council was not in a position to readily accept memberships and provide receipts.

The 2022/ 2023 membership fee are $25.00. A charitable receipt is provided for your fee. The Canadian Chestnut Council is now able to accept annual dues both by mail and by internet transfer.

If you have not already done so, we would ask please renew your 2023/2024 at this time.

By Mail: make cheque payable to "Canadian Chestnut Council" and send to

Secretary, Canadian Chestnut Council
c/o Dr. Terry Anderson, 261 Sandy Brook Way, Kingsville, Ontario, N9Y 0A4
or bring it to the next meeting or special event.

By Internet: Please **send your e-transfer to** ccc.membership17@gmail.com.

2023/2024 Membership Fees – to assist with increasing costs, the Board has approved in increase in membership fees effective October 2023 of $35.00

Want more information:

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