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SONG NEWS

The Newsletter of the Society of Ontario Nut Growers and
The Eastern Chapter of the Society of Ontario Nut Growers

WWW.SONGONLINE.CA

The **SONGNEWS** is published 3 - 4 times per year by: SONG/ECSONG.
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Inside This Issue

Library Corner - Gordon Wilkinson

This part of the page is now open to members who would like reference information or articles written by NNGA or SONG/ECSONG members. Gordon has a nearly complete set of NNGA Annual Reports and a complete set of SONG News issues to research.

NUTS ABOUT HEARTNUT COOKING

This unique cookbook is the only book dedicated solely to the heartnut. The book is priced at $12. Please add $3.50 for mailing. For special quantity price, contact: Gordon Chinnick, Treasurer, 722 6th Concession Rd, Walsingham, ON N0E 1X0

SONG/ECSONG Archive

Have you visited ECSONG? Click the tab at the bottom of the SONG website to see the work that was done there? If you click on the SONGNEWS tab, you will be impressed to find all SONGNEWS issues from the beginning of SONG in 1972. Enthusiastic members of ECSONG did this for all members and visitors alike. There is plenty of reading there for the new as well as old members. Enjoy!

SONG Website: www.songonline.ca
Be sure to check it for updates on meetings, read about nut farming, post your nuts or nut products to sell online.
Send your free posting to: Linda Grimo, President,
979 Lakeshore Rd, RR3, Niagara/Lake, ON L0S 1J0
or: nut.trees@grimonut.com

Wondering when your membership expires?
On your mailing label, "(exp: 20xx)" means your membership expires end of year 20xx.

COMING EVENTS

SONG 2022 FALL MEETING: We are pleased to announce that SONG will be hosting our annual fall meeting on Sunday Oct 2, 2022. Simon de Boer and Victor Schmidt are inviting us to their farms.

We will start at Simon de Boer's farm which will showcase Heartnut trees that are intercropped with garlic, asparagus and black currents. His heartnut crop yields vary yearly, but always have enough for his household needs even though the crows and squirrels that appreciate his plantation get their fill as well. He says, "I never set it out with the intent to be an economical venture but mostly as lifetime interest in trees, especially those which bear nuts."

Simon's 5 acres of Heartnuts are mostly seedlings. He said some of these are good, and some have been removed and replanted with more. He has a number of named grafted trees in a row down the middle of his 5-acre plantation for pollination and comparison. The rows are planted at the 40-foot width planting of the original trees, of which there were at least 100 trees.

His orchard is not limited to heartnuts as he also grows northern pecan and his persimmon produces fruit after SONG member, Bob Horvat gave him some scion wood and he was able to graft a female to his tree. He also grows ginkgo, black walnuts, English walnuts, and has an original pair of grafted Hansen and Greenwood that Ernie Grimo hoped would cross and the seed would produce hardy trees. Paw paws should be ripening when we arrive for the fall meeting.

Simon is a long-time member and has been attending SONG meeting since he was a student at the University of Guelph. He recalls not being able to attend a SONG auction in his graduating year as his wife was expecting at any time, and his twin daughters are now 43 years old.

Simon welcomes our visit to his organic farm. He says, "Nut trees are my go to joy, and I am sure as people drive by they wonder what "Simon the Farmer" is growing this year." He lives in Zone 5 in Bruce County right in the middle of three towns: Lucknow, Wingham and Teeswater. Simon may have organically grown garlic for sale for those who are interested!

The next farm to visit will be that of Victor Schmidt. He has a bearing pecan and a well manicured nut orchard. He has old English walnuts trees, Snaps pecans, some heartnut trees growing in his well cared for orchard with irrigation. We will be provided with his address once we arrive at Simon's farm.

See everyone soon! SONG will have water and snacks for you to enjoy.

Where: 540 Wolfe Street RR#2 Teeswater 519-357 -1919 Simon
When: October 2, 2022 * mark your calendar**
Time: 1-4 pm

Auction Results, 2022 May 8th by Gordon Chinnick

Total Sales $2877.00 of which SONG receives 30%
Hall rental: $176.00, HST: $22.88
Funds raised for SONG total after all expenses was **$664.22**

Thank you to all who brought items to sell and a great big thank you to all purchasers of items.

Nuisance wildlife in hazelnut orchards by Martin Hodgson

Those who grow hazelnuts know all too well of the problems they encounter with wildlife that try to devour their crop before harvest.

Most four-legged animals and some birds love to eat hazelnuts. The regular line up of snackers includes the likes of squirrels, chipmunks, mice, rats, raccoons, opossums, foxes, coyotes and birds like crows, turkeys and blue jays. Some wait for the nuts to drop while others are up in the trees well in advance of nut fall.

We often focus on squirrels and crows because when they are in the orchard, they tend to leave a lot of evidence of their visit as observed from the numerous split shells scattered around the trees of choice. They tend to start early in the season before the nuts are even nearly ripe.

The varmint that is most often overlooked is the chipmunk. During any passage through the orchard, normally only a very few chipmunks are seen and their potential in yield reduction can be greatly underestimated.

Unlike squirrels and crows that "dine in", chipmunks tend to do "take out" and hide the nuts somewhere for later consumption. This harvesting commences early in the season when as little as 10% nut meat fill has occurred. They continue collecting and storing nuts through the harvest period, continuing on well into the next new season as a cleanup crew.

I first started trapping chipmunks in small metal wire cages in 2021. I started in April and carried on through to October. I used bird seed to entice them into the cages and found I need to stake the cages down securely to stop the coyotes and raccoons from carrying them away if there was anything in them over night. I found that the cheaper wire cages work much better than the more expensive "Have a Heart" type which are not triggered as easily by the lighter animals.

Some have used a miniature plastic jawed trap to achieve success but I have had limited success with them. (I do not think my varmints like the peanut butter I need to load this type of trap with). In my orchard these traps have to be secured to the trees to stop them from being carried off if there is a victim in the trap

My Labrador dog took great interest in the caged chipmunks and ultimately was the judge and jury in the matter. Chipmunks are basically striped rats so to speak.

In 2021 from April to October, I captured approximately 150 chipmunks over about 6 acres of orchard using 8-10 traps. Some days in the spring when food is scarce, I have caught up to 8 in one day. I make at least two passes per day through the orchard to check the traps. If I am going to be away on any day, I set the traps off to eliminate any long-term suffering in my absence.

One does not have to ponder very long to realize how many nuts would be lost to that many chipmunks over a season and I know I did not get them all.

President's Message by Linda Grimo

SONG is a fantastic group of nut growing enthusiasts from Ontario, Quebec and some northern States. Started in 1972, this marks our 50th year from the first organizational meeting. That is quite an accomplishment!

I stepped into the President's role this spring at the SONG auction in early May.

SONG, over the past 50 years has seen many changes from gestetner machine printing of our newsletters to fast paced social media and zoom! In order to continue to thrive as an organization, we want to continually find ways to meet the ever-changing needs of our members. Previously we hosted summer meetings and had volunteers attend major gardening events, but with a declining volunteer base it became increasingly difficult to continue with these events.

Annually, SONG hosts a March Technical meeting with experts sharing presentations on current research as well our OMAFRA specialists teaching us the most up to date information for growing nuts in Ontario. The Spring Auction is an enjoyable event which is both educational and raises money for both SONG and the seller. The auction items include nut trees, unusual fruiting trees, vegetable plants, seeds, baked goods, and any other items that attendees bring along. SONG's Fall Meeting location varies yearly as we visit different nut grower farms each year. It is another great opportunity to visit with those who are eager to share ideas and to gain insight into how others are growing, harvesting, propagating, and marketing their products. This year we are excited to see Simon deBoer and Victor Schmidt's orchards.

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Transgenic American Chestnut to the Rescue

At the State University of New York at Syracuse two deer-fenced plots contain some of the world's most highly regulated trees. Each summer researchers double-bag every flower the trees produce. One bag, made of breathable plastic, keeps them from spreading pollen. The second, an aluminum mesh screen added a few weeks later, prevents squirrels from stealing the spiky green fruits that emerge from pollinated flowers. The researchers report their every move to regulators with the U.S. Department of Agriculture (USDA). "We tell them when we plant and where we plant and how many we plant," says Andrew Newhouse, a biologist at the nearby State University of New York College of Environmental Science and Forestry (SUNY ESF).

These American chestnut trees (*Castanea dentata*) are under such tight security because they are genetically modified (GM) organisms, engineered to resist a deadly blight that has all but erased the once widespread species from North American forests. Now, Newhouse and his colleagues hope to use the GM chestnuts to restore the tree to its former home. In the coming weeks, they plan to formally ask U.S. regulators for approval to breed their trees with nonengineered relatives and plant them in forests.

If the regulators approve the request, it would be "precedent setting"—the first use of a GM tree to try to restore a native species in North America, says Doria Gordon, lead senior scientist at the Environmental Defense Fund (EDF) in Washington, D.C. But deciding whether to unleash a GM tree into the wild could take years.

American chestnuts, towering 30 meters or more, once dominated forests throughout the Appalachian Mountains. But in the early 1900s, a fungal infection appeared on trees at the Bronx Zoo in New York City, and then spread rapidly. The so-called chestnut blight—an accidental import from Asia—releases a toxin that girdles trees and kills everything above the infection site, though still-living roots sometimes send up new shoots. By mid-century, large American chestnuts had all but disappeared.

In 1990, the New York Chapter of the American Chestnut Foundation approached SUNY ESF tree geneticists William Powell and Charles Maynard (now retired) to try to create resistant chestnuts with the then-new technology of genetic engineering. The Chapter raised money each year to fund this project. It was decided early on that the resulting transformative tree would not be patented.

Eventually, the researchers inserted into the tree's genome a wheat gene that codes for an enzyme called oxalate oxidase, or OxO. It breaks down the oxalic acid the pathogen releases, which is what kills the trees. "We're basically taking the weapon away from the fungus," Powell says.

It didn't work at first. Then, the scientists changed the wheat gene's promoter sequence to cause OxO to be expressed at high levels. In 2014, they reported that a GM tree named ‘Darling 58’ both resisted blight infection and transmitted resistance to its offspring. Subsequent tests showed that it produces nuts indistinguishable from those of native trees, Newhouse says. And its pollen, flowers, and decaying leaves don't harm bees, beneficial soil fungi, or tadpoles that hatch in pools on the forest floor.

Chestnut Breeding for Blight Resistance in Ontario

The Canadian Chestnut Council (CCC) is a volunteer-run scientific and charitable organization. Now in its 33rd year, CCC's goal is to save the endangered American chestnut from extinction. The American chestnut was once the dominant hardwood species in the Carolinian forest and an important food source for Indigenous people.

This super canopy tree's top branches once rose above all other species in the forest. Often referred to as the eastern redwood, this species was at one time a major source of rot-resistant timber for everything from cradles to coffins. In the mid-1920s, a fungal disease, the invasive chestnut blight, swept into Ontario from New York State. The blight killed approximately two million trees, leaving just a few isolated chestnuts as survivors. The loss of this species impacted about 275 other species that relied on American chestnuts. Losing the American chestnut caused a ripple in the food web that is still felt today. It had far-reaching effects that caused population declines for many species.

The CCC hopes to restore the American chestnut to its former cultural, ecological and economic roles in Ontario. To that end, CCC works to preserve the remaining genetics of the Canadian population of American chestnuts and breed a blight-resistant pure American chestnut of Canadian origin.

The conservation of the remaining native population is being achieved in two CCC-led projects: the Breaking Isolation and Gene Pods projects.

Although there remain American chestnut trees in Ontario, they are so isolated that they cannot cross-pollinate and produce seeds. The Breaking Isolation project aims to address this problem. An isolated wild chestnut lacks a partner to exchange pollen with. Instead, it flowers and produces burrs with no nuts. This has been occurring for over 90 years for some of our larger trees. To break this isolation, the CCC provides the wild tree with genetically different native partners. They provide the necessary pollen for cross-pollination and the production of viable nuts of greater genetic diversity in the new group planting.

We have grown new partner trees using a process called “etiolated grafting.” This involves taking a small cutting from a mature American chestnut tree that has demonstrated resistance to chestnut blight. The live twigs are then grafted to germinated native chestnut nuts from another native parent tree. Six to 12 of these little grafted trees are planted close to naturally occurring, mature American chestnut trees.

Although these grafted trees are small, they behave as though they are much older, because a mature twig is used in the grafting process. This allows the grafted trees to flower in their second year! Pollen produced by the grafted trees allows the naturally occurring tree to once again produce fertile nuts, breaking the natural trees’ former isolation. This is the first step in recovering American chestnuts in the wild and conserving native genetics.

In areas without native chestnut trees, CCC works to establish “gene pods.” Volunteers plant groups of chestnut trees from a variety of native genetic sources, either in a pure chestnut grouping or intermixed with other native species, such as white pine and red oak. Additional chestnut from other native genetic sources are added, until we establish a pod of 100 to 200 chestnuts. The mixture allows for maximum cross-pollination within the species, increasing the genetic diversity.

In both the Breaking Isolation and the Gene Pods projects, the nuts that the trees produce will support wildlife, as they did in the years before chestnut blight. Some of these nuts will escape being eaten and will germinate to produce young trees.

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In partnership with the Nature Conservancy of Canada (NCC), we have already established two gene pods in Norfolk County in the 2017 growing season. The CCC looks forward to growing these initial projects and expanding the recovery of the American chestnut on NCC properties throughout the Carolinian forest in 2018.

After 20 years of breeding for native blight resistance in our Canadian American chestnut, our first- and second-generation of trees have produced individuals, demonstrating progressive blight-resistance qualities. With a third generation in late 2018, the ability to produce a highly blight-resistant tree is promising…but not guaranteed.

ECSONG Tour of Meadowlark Rise Farm

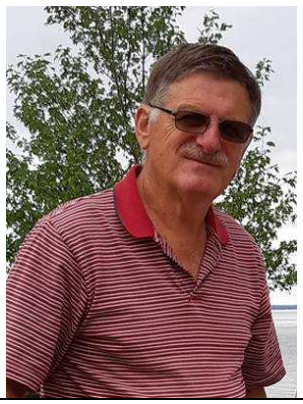
By Gordon Wilkinson

On Saturday morning August 20th a dozen people, consisting of ECSONG members, their spouses, friends or guests, enjoyed a tour of Meadowlark Rise Farm, located in VanKleek Hill, which is in USDA hardiness Zone 4B and about 100 kilometres east of Ottawa. The tour was given by Justin Reeves, the owner of Meadowlark Rise Farm.

Highlights from the tour included viewing more than 400 seedling heartnut trees, new plantings of hazelnut seedlings sourced from the acclaimed permaculturist Mike Shepard of Wisconsin, hybrid chestnut seedlings, fruiting Asian pears, cherry plums (chums) and one young but very healthy Carpathian walnut tree. Following the tour of Meadowlark Rise Farms, participants drove convoy style to a nearby farm with over a dozen mature nut trees planted many years ago by seed collector Ted Cormier, a former ECSONG member and Vice-Chair. Below is a brief message from Justin:

I would like to take this opportunity to say a big Thank You to all the ECSONG members, family and friends who came for the farm tour. For the past 12 years we have worked hard to promote a healthy agricultural ecosystem on our farm here in VanKleek Hill. Nut trees are at the heart of the perennial woody crop agricultural system we are creating, which aims to imitate natural ecosystems to provide food for humans and livestock while capturing carbon and increasing biodiversity creating a refuge for wildlife as well as ourselves. We hope this can be an example of an alternative to current conventional farming practices. The design of our water management system is based on Mark Sheppard's Keyline adaptations (I highly recommend reading his books Restoration Agriculture and Water for any Farm). We have a budding Nut tree nursery (pun intended), and are excited to offer selected Hazelnut and Heartnut seedlings from trees proving successful here at our farm as well as importing nursery stock from Forest Agriculture Enterprises in the spring of 2023. If you would like to learn more about restoration agriculture or would like a consultation for design/implementation of earthworks, water management system, contour plantings, or restoration plantings for your property, please don't hesitate to reach out to me at Justin@meadowlarkrisefarm.ca. Looking forward to seeing you all at future events!

OBITUARY



With sadness we announce the passing of Gilles Cyr on April 22/2022.
Gilles had ALS which took him much too early, Gilles was 77.
Gilles was a long-time member of SONG and came to the auctions for over thirty years. It was remarkable what he did with his place. He bought an old stone quarry near Montreal. He had truckloads of soil brought in and made large planting areas on his 50-acre property. He turned his place into a Garden of Eden with trees and plants never expecting to see in his climate zone. He will be missed.

Summary of NNGA/CGA Annual Meeting, August 7 -10, 2022

By: Gordon Wilkinson

The Northern Nut Growers Association (NNGA) held its first in-person annual meeting in three years at the Berks Campus of Penn State University in Reading, Pennsylvania from August 7 -10, 2022. This annual meeting was hosted jointly with the Chestnut Growers of America (CGA). There were 160 registered participants including 4 from Canada. It was thrilling to see old friends again and make new ones after such a prolonged absence.

The conference began on Sunday evening with the traditional "Show and Tell" session. There were several brief presentations including a critically important one on an Asian invasive called the Spotted Lantern Fly. Our SONG President, Linda Grimo, demonstrated an improved grafting device designed by her father Ernie Grimo.

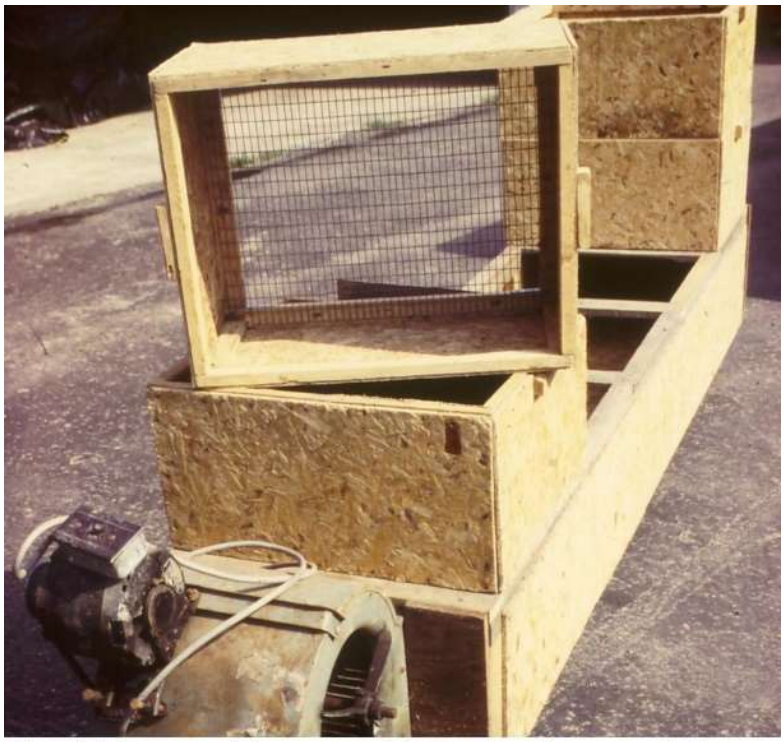
Monday's sessions included presentations on Michigan's Chestnut Growers cooperative; interspecific ancestry in elite chestnut germplasm; exciting new developments in the breeding of hazelnuts for high quality and production, cold tolerance and resistance to Eastern Filbert Blight (EFB); pawpaw orchard renovation; protecting young seedlings from small mammals; advancements in Chestnut genetics and biotechnology; self-sterility in Chinese Chestnut; preserving the historic nut tree plantings of John Hershey; and nut evaluations and taste testing.

Tuesday was another full day of presentations covering subjects as diverse as Chestnut value chain development; the use of a GPS locator in a nut orchard; details on a 1935 black walnut planting in West Virginia; a beautiful nut tree journey on video accompanied by soft, live guitar music; the English Walnut Project of the State of New York Nut Growers Association; Chestnut brown rot; Chestnut Anthracnose; the extensive Carya collection of the late Charles Spurgeon of Indiana; a commercial pecan operation; herbicide damage to chestnut tree; heartnut performance at two widely different sites; and soil regeneration.

The last day of the annual meeting traditionally consists of field trips. With two organizations hosting this year's meeting there were two different tours to choose from: (1) a tour of various chestnut plantings and (2) a tour of the hazelnut plantings of a breeding program run by Professor Tom Molnar at Rutgers University in New Brunswick, New Jersey. It was thrilling to see the breakthroughs in hazelnut breeding that will allow for the establishment of a hazelnut industry in Eastern North America. Both tours included a visit to Louise Moore County Park in Easton, Pennsylvania where the genetics of John Hershey's trees are preserved.

Next year's annual meeting will be hosted by the NNGA, CGA and Walnut Council and held at the University of Missouri in Columbia, Missouri on July 23 – 27. I learn so much from the presentations and from interacting with nut experts, growers and hobbyists from across North America that I very much look forward to attending next year's meeting.

Small Grower Nut Dryer by Ernie Grimo



An old furnace blower and boxes makes a nut dryer.

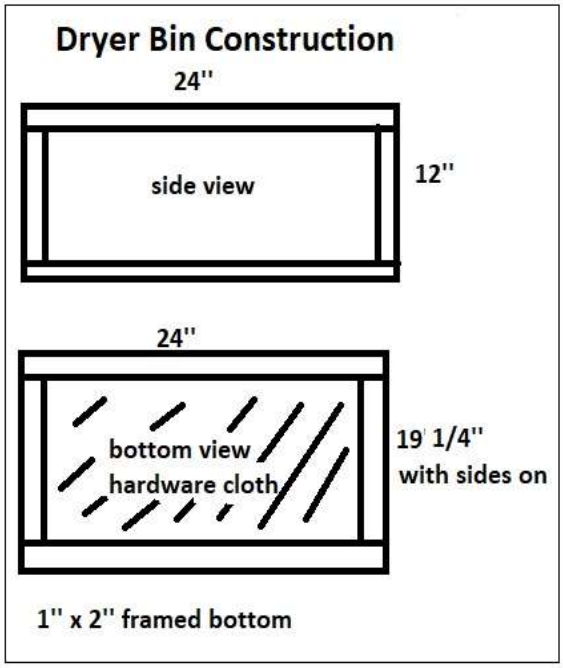
It is important to dry your nut crop soon after it is harvested. Hanging the nuts in onion bags on the open porch can be a short-term solution, but when the crop is large enough, a better system is needed. An easy to make nut dryer can be made on a budget. The following illustration can be an answer for a small commercial grower. The sketches below will assist in building the dryer base and 5 bins to match. More bins can be added up to 4 high for each plenum opening. When a plenum opening is not in use, a 24'' x 19'' plywood covers will be needed to prevent air loss from the openings in use. Bin handles are optional.

Materials needed for an 8' plenum and 5 bins.

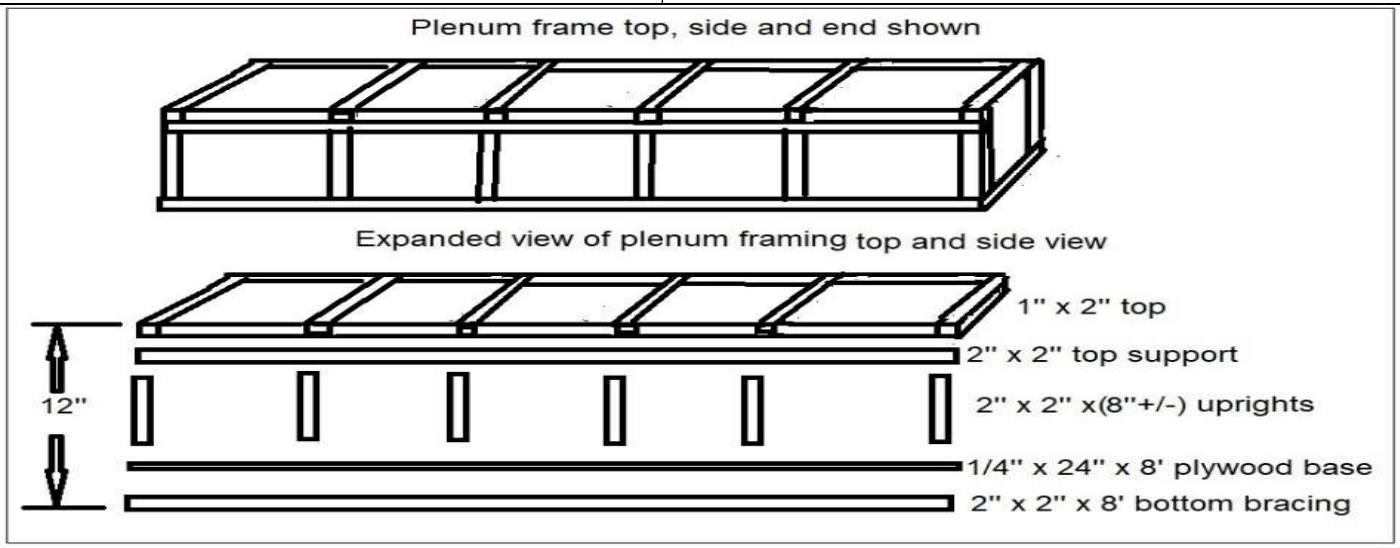
2.5 sheets of 6mm (1/4''x 4' x 8') fir plywood
7 pieces 2'' x 2'' spruce lumber
10 pieces 1'' x 3'' x 8' spruce lumber for plenum
10+/- pieces 1''x 2''x 8' spruce lumber for bins
½'' x 1'' x 24'' galvanized hardware cloth
1 furnace blower with ¼ hp or greater motor.

Plenum assembly

1. Assemble the bottom panel with two lengthwise 2'' x 2'' x 8' lumber braces. Add crossmembers at ends and 19'' apart. The panel should have the braces on the floor with the panel surface up.
2. Add 2'' x 2'' x 8' top support to side panels allowing space for 1''x2" top framing.
3. Join side panels to bottom bracing.
4. Fit all uprights in place for side panels.
5. Place 1'' x 2'' x 24'' top cross members and fill in 1'' x 2'' lengthwise gaps.
6. Place plywood 12'' x 24'' end panel and close in space to match the size of the blower on front.



1. Use screws to frame the 2 side plywood panels as shown in the side view.
2. Top four 1’’x 2’’ pieces are laid flat to side plywood panels.
3. Bottom four 1’’ x 2’’ pieces are placed on edge.
4. Measure and cut 1’’x 2’’pieces to fit 12’’ side.
5. Join 2 side panels with the two plywood end panels.
6. Staple a 24’’x 19’’ piece of hardware cloth to the bottom frame with ½’’ staples.
7. Handles can be added on plywood ends for convenience.



President’s Report Continued from Page 3

To attract membership these thoughts prevail:

- How can we connect to those enthusiasts that would enjoy SONG membership, that we are not currently reaching?
- What events should we be participating in to attract members?
  - Gardening Events, Community Fairs, speaking at Gardening Clubs?
  - How can we communicate with our membership to get volunteers for these events?
- What can we do to encourage our membership to attend meetings or to follow our Facebook group?
- Could we host a “Nut Competition” to challenge people to find the best walnut, heartnut, hickory nut or black walnut growing in their community?
- How can we create or sponsor nut growing activities either for commercial or community projects?

Please forward your thoughts and ideas to song.president@yahoo.com so we can build our SONG community.

It is my pleasure to serve as your president and look forward to engaging meetings and having those wonderful face to face conversations that encouraged the members to form the association 50 years ago.

Sincerely, Linda Grimo

CLASSIFIEDS

...**MEMBERSHIP** benefits in the Society of Ontario Nut Growers (SONG) & ECSONG (Eastern Chapter of SONG) include three yearly newsletters, along with 3 annual meetings in two regions, set to satisfy the needs of both the commercial growers and the hobbyists. For an added bonus, **new members** will receive SONG'S own nut growing manual, ***Nut Tree Ontario, A Practical Guide**,* a $20 value, **free,** when you take out a new three-year, $45 membership. Simply ask for your free copy when joining SONG. For added information, view the ECSONG handbook at: http://www.songonline.ca/ecsong/ . Fill out the tear off below and send to: **SONG/ECSONG, Gordon Chinnick, Treasurer, 722 6th Concession Rd, Walsingham, ON N0E 1X0.** Your cancelled cheque is your receipt.
Dues can also be paid by e-transfer to: song.treasurer@yahoo.com

- -

Date: _____________ □ Renewal □ New membership

Name:____

Address: ____

City: ____________________________ Prov:__________

Postal Code: __________ Phone#: ___________________

Email: ____

Prefer to receive newsletter by: □ Email □ Letter mail

Payment enclosed: □ 3 Years $45.00
□ One year $17.00
□ Other_________

Nut Tree Ontario, A Practical Guide:
□ Please send my free copy with **new 3yr membership.**
□ I would like to purchase my copy for $26.00 ($29 US).