TABLE OF CONTENTS

4  ACS President’s Message
   Jeff Harvey

5  ACS Vice President’s Message
   Deborah Guardia

6  Pinus strobus ‘Brantford’
   Bill Hoffman

7  How Conifers Survive Drought
   Ron Elardo

9  ACS 2021 Scholarship Recipients
   Lois Girton

11 ACS 2021 Internship Recipient
    Lois Girton

12 Tree-Watching (and a small conifer garden)
    John Halverson

16 One of My Most Successful Conifers
    Glenn Herold

17 My Favorite Conifers
    Chris Trautmann

21 Tsuga canadensis Cultivars and a Pinus strobus
    John Lyons

24 So You Want to Start a Nursery
    Bob Fincham

30 Marvin Snyder
    Frank Goodhart

31 A Reference Garden Update:
    The Calibrako Garden at the Ambler Arboretum of Temple University
    Kathy Salisbury

32 Conifers That Catch My Eye
    Jeff Ashauer
Hello everyone, my name is Jeff Harvey, and I am looking forward to serving as President of the ACS.

My wife, Jennifer, got me started in gardening when we got married and moved to Rochester, NY. She put in our first vegetable garden before we even had the foundation for our house built. The builder was slightly annoyed that we would not let him bulldoze the stand of white pines in the middle of the backyard. I should have known then that we would become conifer addicts.

We grew just about everything you could think of in the suburban lot that we owned. We really tried everything! It was not your typical red maple and two arborvitae house.

Rochester has a very rich gardening history and has many plant-related activities and clubs. It was there that we met up with Elmer Dustman and Jerry Kral at just about every garden event we went to. They showed us around their own gardens many times and tried hard to get us to join the Society, but we were still caught up in the showy flowers of perennials and annuals. Over time, we realized how much work that was.

When we moved to Tennessee (USDA Zone 7a), we “limited” our garden palette. We primarily kept roses, peonies, daylilies, shrubs, conifers, and other trees. This started our collection of winter-blooming shrubs, as well as conifers and trees with interesting bark. It was not long before we found the University of Tennessee Gardens in Knoxville and their collections. We soon joined the American Conifer Society and became active members of the Southeast Region.

As President, I would like to expand the Zoom meetings that were started by several ACS Regions to a national level. I am going to steal the Southeast Region’s name for the meetings and call them “Conifers and Cocktails”. I am working on the presentation schedule and hope to offer them on Saturday evenings. Please watch the website and your inbox for more information.

I would like to see more members getting involved. This is our Society, and we need you to participate actively. There are many opportunities to help out, such as serving on one of the national committees as varied as membership, research, or website. We could always use a few tech-savvy people to help update and provide information for the website and the conifer database, as well as the Regions. The Regions would also love to have people helping them out with planning and running their events, especially with the auctions and registrations for meetings and rendezvous. Helping out at events or on one of the committees is a great way to meet other members of the Society.

Please reach out to your local officers or me. We are always looking for help with projects. In fact, we currently have an opening for Publicity Committee chair. If you have an affinity for sharing information about the ACS and our events, please let me know. We would love to have someone help promote the ACS and our activities. We have a great Society and we need to promote it as much as we can to keep it growing.

I look forward to seeing everyone soon at our 2022 National Conference in Philadelphia. It is shaping up to be a really nice one, with beautiful gardens, lots of conifers, and a chance to spend time with other people who love conifers.

Jeff Harvey
ACS President
ACS Vice President’s Message
Deborah Guardia

Allow me to introduce myself. I am Deb Guardia, a lifelong horticultural hobbiest; a.k.a. gardener! I live in Raymore, MO with my husband, Gary. We joined the American Conifer Society in 2007 after touring the conifer collection and garden of Jim and Ellen (past ACS President) Kelley during a hosta convention. Inspired by the Kelley conifers and rock garden, I returned home to my former garden in Champaign, IL, and began a conifer collection. My husband and I traveled with the 2010 ACS International Tour to England led by Tom and Evelyn Cox, were presenters at the 2012 Conifer College, and have attended many regional and national ACS Conferences. In 2020, I volunteered to co-chair a local planning committee to host the 2023 ACS Central Region Conference in Kansas City. Also in 2020, I became a volunteer and an ACS Member-Sponsor for the ACS Conifer Reference Garden at Powell Gardens, Kansas City’s Botanical Garden. In January 2021, Powell Gardens’ employee Marissa Adams and I held a Zoom presentation to ACS members about Powell Gardens and the development of the conifer reference garden there. A link to our presentation is available via the ACS website. I serve on the ACS Bylaws Committee and have assisted in revising the Bylaws that were approved in May 2021.

After the birth of our first grandchild in 2012, Gary and I moved to Raymore to be close to our family. Our new house had less than 20 plants in the landscape and far too much grass. Starting with many favorite, “transplantable” plants that made the move with us, a new garden was born and continues to develop bed-by-bed, year-by-year. In addition to conifers, my horticulture collections include woodies, ornamental grasses, hosta, agaves and succulents. I love conifers for their texture, color and four-season interest. I also collects rocks to use in the garden and, generally, “plant” at least one rock for every three or four conifers. I garden in full sun in USDA Zone 6a.

Serving as national Vice President is my first official position within the ACS. I look forward to helping bring the ACS community closer together.

A Note from Steven Courtney,
National Office Manager,
to all ACS Members

As the ACS continues to adopt modern practices; and is now conducting online elections, in some regions, it is necessary to have valid email addresses for every authorized voter in the Society. The National Office asks that it has a valid email address for each member of the Society. Every voting member (up to two per household membership) must have their own unique email address. Please go to our website, login in, and review your individual profile. If your email address is missing, you can add it yourself. You can also let me know, and I can easily add it for you. If you don’t have a computer, someone you know can help you. Reach out to me if you need assistance.

Steven Courtney,
nationaloffice@conifersociety.org,
763-777-7525
**Pinus strobus ‘Brantford’**

*Bill Hoffman*

While I was brush-mowing my forest trails one late summer a few years ago in Brantford, WI (USDA Zone 5a), I noticed a broom on a huge, old, eastern white pine, beside the trail. What was so surprising was that it was reachable. It was not but 30 feet up the tree! Brooms are rare in my neck of the woods. I was thrilled to discover this one.

I contacted Sam Pratt at Conifer Kingdom Nursery (Silverton, OR) to see if he would be willing to propagate it. I was once again thrilled when he said he would. He suggested that I send some cuttings during the next propagating season in January and inform him of a name for the potential new cultivar. He said that there were no guarantees that the propagules would survive.

In January, I drove my snowmobile out into the deep snow to the white pine. Standing on the snowmobile, I was able to reach up and cut down the broom. Back at the house, I cut off all the new growth for grafting and quickly shipped them off to Sam in Oregon.

Seeing *Pinus strobus* ‘Brantwood’ on Conifer Kingdom’s website a few years later was yet another thrill.

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**2022 Collectors’ Conifer of the Year: Unfortunate News**

*Note from Dennis Lee, CCOY Chair*

The CCOY program has provided members the opportunity to acquire unique conifers for the past 16 years. Occasionally, some garden-worthy ginkgoes were affectionately included in the offerings as conifer allies. Now at the 17-year point, the program faces an unprecedented situation. Due to the impact of extreme weather conditions experienced by our West Coast grower, there is insufficient inventory to supply the CCOY program with 2022 offerings. We are, however, optimistic that suitable inventory will be available for the 2023 program.

I’m sorry to disappoint anyone who was looking forward to temptations that would enhance their landscape. A hearty thanks to all who have supported and participated in the program.

The best to everyone in conifering!
A report came out from the University at Buffalo (UB), State University of New York, of the research conducted by Dr. Scott Mackay, professor of geography and an expert in ecohydrology at UB, and his team into how trees, specifically pines and junipers, survive drought. This study first appeared in New Phytologist (2020).

Mackay used computational modeling to investigate how pines and junipers access water during prolonged dry spells. According to Mackay: “In simulations, trees of both species survived a five-year drought when they entered the dry period with deep roots reaching into fractured bedrock, where water [could] be found. The modeled trees also used water in ways that matched
well with observations of real trees that successfully weathered drought conditions at the Los Alamos Survival-Mortality experiment site in New Mexico.”

“When the model was set up with roots in the groundwater, none of the trees died. When the model required the trees to grow the roots into the bedrock after simulations started, all the trees died off. Growing roots, which itself requires water, took too long.” Scientists from UB, Duke University, the Swiss Federal Institute for Forest, Snow, and Landscape Research, Pacific Northwest National Laboratory, Oklahoma State University, and the University of Utah collaborated on the project.

Both pines and junipers initially grow a tap root followed by roots that spread out from the upper tap root beneath the ground. Mackay states that it is very difficult to see what's happening with a tree's roots without digging it up and, thus, killing it. The computational modeling approach provides, in part, insight into how coniferous forests respond to climate change. Through photosynthesis, carbon is transported from the canopy of the trees to grow roots. Roots that cannot obtain water and move carbon around become impaired and cannot create new roots. They eventually die. “Our model captures this feedback,” according to Mackay.

Mackay’s final analysis states that scientists are trying to forecast what's going to happen to the world’s biomes under climate change. “During past droughts, there's lots of evidence of what we might think of as hydrologic refugia – pockets of woody species that have survived droughts by tapping into deeper water resources.” By creating better models and learning more about these refugia, we can better understand tree mortality.

Ron Elardo, CQ Editor, resides in Adrian, Southeast Michigan, and gardens in USDA Zone 6a.

Root structure of a conifer. Science Facts.

**Editor’s Note**

It was my oversight not to mention that Lois Girton’s Conifer/Peony Garden (Summer CQ 2021, Volume 38, Number 3, pp. 16-17) is in Ames, IA (USDA Zone 5). Please note this correction.

Also, when submitting photography, please make sure that photos are at least 1 MB/300 dpi in resolution and provide the author of the photography, the geographic location, and the USDA Zone.
ACS 2021 Scholarship Recipients
Lois Girton

Four students were awarded $1,000 scholarships to assist them with the expenses of their undergraduate degree programs.

Jennifer Jung
University of British Columbia, Vancouver, BC, CA

Jennifer is entering her senior year in the Urban Forestry program at UBC, but her conifer journey began while she was in high school, when she volunteered in the Creighton Educational Garden at Wellesley College Botanic Garden, an ACS Conifer Reference Garden. At UBC, she is learning about the conifers native to the Pacific Northwest, such as Thuja plicata (western red-cedar), Tsuga heterophylla (western hemlock), Pseudotsuga menziesii (Douglas-fir), Picea sitchensis (Sitka spruce), and Pinus ponderosa (ponderosa pine). Her arboriculture courses have given her an appreciation for both the benefits of trees and the hazards some can create in an urban environment. She spent the summer of 2021 in South Korea, educating herself about the conifers of Korea.

Jennifer plans to continue her studies in forestry after graduation in May 2022, pursuing a Master's Degree, possibly in International Forestry. She writes: “Land degradation and deforestation are accelerating due to the climate crisis. The warming climate will significantly impact the forests, in which it will threaten conifers and force them to face challenges: forced bud break, reduced germination, reduced cold hardiness, to mention a few. I hope to learn more about conifers in various geographical and climatic regions.” She is grateful for the amazing opportunity ACS has provided to share and study conifers around the world.

Photo by Wellesley College Professor Emerita Mary Downey Coyne at Wellesley College Botanic Garden, Wellesley, MA.

Hannah Michaelis
Missouri State University, Springfield, MO

Hannah is in her junior year of the Environmental Plant Sciences program at Missouri State University, where she has taken coursework in soil sciences, forages, and silviculture. Her particular interest in conifers has grown during her 2020 and 2021 summer internships at the Lovett Pinetum in Stafford, MO. Her primary tasks include mowing the lawns and weed eating around the trees at the 108-acre arboretum. Throughout these summers, she has learned to identify and characterize several of the conifer species on the property, as well as to identify some pests to look out for, such as bagworms and pine sawflies.

Hannah is paying her own way through her undergraduate degree program and is very appreciative of the assistance provided by this scholarship and by the access to valuable information through free student memberships. After graduation, she plans to pursue a career in the plant sciences. Though she is not yet decided on a specific profession, she would be interested in pursuing a job related to her current internship at the Lovett Pinetum.

Photo by Heidi Michaelis, taken at Michaelis Walnut Farm in Fair Play, MO.
Clare McLean  
Edmonds College, Lynnwood, WA

Clare is a student in the Horticulture/Sustainable Landscape Management program at Edmonds College. In her application she wrote: “My respect for conifers began simmering when I enrolled in the Washington Native Plant Society’s Native Plant Stewardship course in fall 2019. We focused on Puget Sound Lowlands ecology. I became fast friends with *Pseudotsuga menziesii* (Douglas-fir), *Thuja plicata* (western redcedar) and *Tsuga heterophylla* (western hemlock) and their plant associations.”

Clare is particularly interested in learning how to incorporate both natives and non-natives into gardens so that they will support wildlife and contribute to land conservation and restoration. The scholarship will help Clare continue as a full-time student and graduate in March 2022, after which time she hopes to pursue a career as a garden writer and photographer.

Photo by Clare McLean, taken in her backyard, Mountlake Terrace, WA.

Zane Smith  
University of Tennessee, Knoxville

Zane is undertaking a Bachelor of Science degree in Plant Sciences with a concentration in Plant Genetics and Biotechnology at the University of Tennessee. He has previously earned a Bachelor of Arts in Modern Foreign Language and Literature (German and French). This program is taking him back to his family’s roots in horticulture. Zane is conducting research with Dr. Denita Hadziabdic-Guerry in Forest Pathology and Population Genetics. His particular interest is in exploring the genetic diversity of *Chamaecyparis thyoides* (white cypress), a native species, the populations of which are becoming increasingly fragmented as wet-lands disappear. In addition, Zane assists in collections management at the Hesler Biology Greenhouses under Jeff Martin and Kaitlin Palla. Hesler supports faculty research and hands-on student learning.

Zane plans to attend graduate school for Bioinformatics and Genomics after finishing his current degree program. We look forward to a future article on his research findings.

Photo by Shade Niece, taken in the Hesler Biology Greenhouse, University of Tennessee, Knoxville.
Mila Pruiett  
Lewis and Clark College, Portland, OR

Mila is a senior in biology, particularly interested in the early stages of conifer regeneration, which gives insight into what the forest of the future will look like. She has studied conifer regeneration in an old-growth coniferous forest as part of Dr. Margaret Metz’s lab for the past three years. Using the ACS grant to fund a summer internship, she has been able to take her passion further, spending the summer collecting data in urban and rural forests for a senior thesis. She is focusing on how coniferous urban and rural forests differ by seed rain and nurse log availability to better understand why urban forests have lower recruitment than rural forests. She has been advised by both Dr. Metz and by Dr. Paulette Bierzychudek, also of Lewis and Clark.

Over the summer, she particularly enjoyed explaining her project to curious park-goers. When Mila is not in the lab, she is mountain biking, trying new recipes, and gardening. After graduation in spring 2022, she plans to enter the workforce.

Photo by Masten Summerfield, taken at Lewis and Clark College, Portland, OR.
Tree-Watching (and a small conifer garden)

Text and Photography John Halverson

John Halverson wrote to me as CQ Editor about an unusual tree he saw in Scotland. His report began an email exchange that also resulted in my asking him if he had a conifer garden. Here is how it all began. Following is a two-part article.

I am a tree watcher. When our son was about 10 years old, he told me, “Dad, you know what you are? A tree watcher.” His observation was his modification of the phrase ‘bird watcher’, a better-known hobby. Owen Johnson and David More wrote in the Introduction to their 2004 book, Tree Guide, The Most Complete Field Guide to the Trees of Britain and Europe (Parkgate Books Ltd., 1997), under the subheading “Looking at Trees”: “Tree watching is an engrossing but under-subscribed hobby.” I was relieved to learn I wasn’t alone, albeit as one of a small group of fellow watchers.

When I tell someone whom I’ve recently met that I am a tree watcher, they often back away slowly as they scan the room for the guys in white coats who have obviously lost track of their patient. In my brief time as a new member of the ACS, I have met many seemingly sane people who are more ardent tree watchers than even I. Take that, all you amateur psychiatrists!

During our visit to Edinburgh, Scotland (USDA Zone 8b), on October 2, 2016, my wife Jocelyn and I toured the Palace of Holyroodhouse, the official residence of the British monarchy in Scotland. The palace began as a monastery in 1128 (Holyrood Abbey). The major portion of the palace was added in 1501. You know you are not in Kansas anymore when you learn that the remodel project was carried out half a millennium ago. The meticulously maintained, 10-acre gardens alone are worth the visit. The abbey ruins are adjacent
to the palace. The tour ends outdoors where a docent recites the history of the abbey.

My wife and I were in a group of about 20 tourists, listening attentively as the docent described the abbey. My eye was drawn across a wide lawn to a pair of 100-foot-tall trees about 50 yards away. The scene is now down to 19 people facing the ruins and the docent and one guy facing away, staring at two unusual-looking trees. With the tour over, I immediately went to examine the two trees and realized that they are the famed Wentworth elms.

The next day, while perusing a copy of the Daily Mail, I read a story about how two elm trees, which were thought to be extinct, were recently discovered hiding in plain sight at the Palace at Holyroodhouse. They were identified as Ulmus ‘Wentworthii Pendula’ by Dr. Max Coleman of the Royal Botanic Gardens Edinburgh after they were noted as being unusual during a tree survey.

Dr. Coleman believes the trees to be a cross between Ulmus glabra (wych elm) and Ulmus minor (field elm), the hybrid of which produced many cultivars lumped together under Ulmus × hollandica (Dutch elm). The Wentworth cultivar is so rare that it is only mentioned in the more obscure literature of the late 1800s.

As best as can be established through RBGE archives, three Wentworth elms were obtained in 1902 from the Späth Baumschule (nursery), now known as the Späth-Arboretum, a green oasis in the heart of Berlin, Germany. The Arboretum today belongs to the Humboldt University of Berlin.* A few years later, the three were transplanted from RBGE to the current Palace grounds. The two survivors likely represent the only Wentworth elms alive today. In my mind, I like to think I played a small role in discovering these two elm trees, although I have yet to convince anyone else of my modest contribution.

The story in the October 3, 2016 Daily Mail announced, “Last night, a Buckingham Palace spokesman said: ‘The identification of the two elms was surprising and exciting news. Her Majesty has been informed.’ I envision Queen Elizabeth II being awakened at 3:00 am by a liveried footman, bearing the good news.

Just ahead of our visit, RBGE had installed a hedge of two-foot-tall Irish yews (Taxus baccata ‘Fastigiata’) around a long stretch of the garden perimeter to screen the street. It seemed to be more than a quarter-mile worth of yews. I considered stopping by the Garden’s office to thank RBGE staff for not choosing Thuja occidentalis ‘Emerald Green’ arborvitae for the hedge.

Edinburgh, Holyrood Palace, Royal Botanic Gardens Edinburgh – all worth a visit.

* Helmut Ludwig Späth, the last owner of the Baumschule, was a German botanist, plant nursery owner, and an outspoken critic of the Nazi regime. He was murdered by the Nazis in Sachsenhausen Concentration Camp (Berlin) in 1945.
The Halverson Conifer Garden

John Halverson, Bothell, WA (USDA Zone 8b), a lifelong (67 years and counting) admirer of trees, currently lives on a postage-stamp-sized suburban lot. He has recently begun a miniature conifer collection where the final patch of lawn used to be. “No room for grass when so many interesting plants need homes,” according to John. He read CONIFERQUARTERLY online for a few years and joined the Society in late 2020.

When asked if he had a conifer garden, he wrote: “I have one western red-cedar (Thuja plicata) in my rear garden and three Irish yews (Taxus baccata ‘Fastigiata’) in front, all planted about 15 years ago. In Spring 2021, I began my miniature conifer collection with five trees: Abies koreana ‘Kohouts Icebreaker’ (Kohouts Icebreaker Korean fir),

Entry to the new conifer garden. Taxus baccata ‘Fastigiata’ stands beside the house.
These little conifers were planted in Spring 2021. They include (bottom to top): *Chamaecyparis obtusa* ‘Chirimen’, *Cedrus atlantica* ‘Sapphire Nymph’, *Abies koreana* ‘Kohouts Icebreaker’.

*Cedrus atlantica* ‘Sapphire Nymph’ (Sapphire Nymph Atlas cedar), *Chamaecyparis obtusa* ‘Chirimen’ (Chirimen Hinoki cypress), *Thuja plicata* ‘Whipcord’ (Whipcord western red-cedar), and *Cupressus macrocarpa* ‘Wilma’ (Wilma Monterey cypress, maybe ‘Goldcrest’). The first four are of one-gallon size. The *Cupressus* was from a flower pot my wife kept on the porch. It had outgrown the container, so I planted it in the garden. I am uncertain of its cultivar. She bought a new container, and I planted a four-inch *Chamaecyparis obtusa* ‘Confucius’ (Confucius Hinoki cypress) in it.

“My lot is about 3,200 square feet, of which 1,400 square feet is the house footprint, plus a two-car-wide driveway, a rear patio of 400 square feet, and a gravel walkway along one side, not much garden space. I intend to add more in-ground conifers next year, as well as conifers in containers. This is a new, tiny garden and not yet of much interest conifer-wise. I have big plans to create a miniature conifer collection over the next few years.

“I also have nine bonsai trees that I started as seedlings in Spring 2020. All are native to Washington: western red-cedar, Noble fir, Douglas-fir, vine maple, and Garry oak.”

The bonsai trees that I started were seedlings in spring 2020. All are native to Washington and include: western red-cedar (*Thuja plicata*) upper left, Noble fir (*Abies procera*) upper middle, Douglas-fir (*Pseudotsuga menziesii*) upper right, shore pine (*Pinus contorta var. contorta*) center, Garry oak (*Quercus garryana*) left front, and vine maple (*Acer circinatum*) upper middle.
One of My Most Successful Conifers, *Picea orientalis* 'Skylands'

Text and Photography Glenn Herold

I’m not sure that I would label this as my favorite conifer, but it certainly ranks as one of the most successful conifers in my garden. I purchased the plant as a container specimen in 2013 and planted it in a full-sun location in my yard. It survived the first winter with minor tip mortality, but the second winter was brutal with lots of sun, cold temperatures, and a long snow cover. The result was that the top half of the plant died. Thinking that the winter sun, which reflects off the snow, was not to its liking, I transplanted it to a location where it would get sun in the summer but only morning sun in the winter. I bent a side branch upward and attached it to the dead leader. Two years later, it had taken over as the leader and it has not looked back since then. As you can see in the picture, it is growing well and developing into a great specimen.

I have also used this technique with *Larix laricina* (tamarack/American larch) and *Picea glauca* ‘Pendula’ (weeping white spruce), with equal success. Bottom line: don’t give up on a plant just because it has lost its leader.

Glenn lives in Cedarburg, WI, north of Milwaukee, USDA Zone 5b.
My Favorite Conifers
Text and Photography Chris Trautmann

I really enjoy the articles on favorite conifers. They inspired me to do the same. I’m an original member of the ACS. I had two, full-blown rhododendron/conifer arboreta back in Cincinnati, OH, starting in 1976. Then, I moved to Florence, OR (USDA Zone 9a), on the Pacific Coast, 10 years ago.

All the photos for this article were taken recently here at Mowbray Gardens 3. I’ve been growing evergreens for over 45 years and have spent a lot of time breeding rhodies for their tropical colors and exciting foliage.

In the past, I grafted over 1,000 desirable conifers for my nursery sales. It’s too bad that some conifers like Picea abies ‘Gold Drift’ and Picea pungens ‘Spring Ghost’ burn up in the gardens here, even in the mild, coastal areas of Florence, where temperatures hover around 60°F most of the summer.

Chris Trautmann
Mowbray Gardens 3
Florence, OR

Larix kaempferi ‘Pendula’.
Picea orientalis ‘Skylands’.

Cedrus deodara ‘Glaucia’.
Tsuga heterophylla 'Thorsen's Weeping'.

Picea omorika 'Pendula Bruns'.

Taxus baccata 'Icicle'.
**Pinus parviflora** ‘Tenysu kazu’.

**Abies koreana** ‘Kohouts Icebreaker’.

**Pinus parviflora** ‘Tanima no yuki’.
**Picea abies 'Repens'.**

**Abies koreana 'Silberperle'.**

**Pinus thunbergii 'Thunderhead'.**
Tsuga canadensis Cultivars and a Pinus strobus
Text and Photography John Lyons

John Lyons of Newbury, NH, sent the CQ Editor several photos of his favorite conifers. Most are of the genus Tsuga and species canadensis. Newbury is in USDA Zone 5a.
Tsuga canadensis 'Cole' staked.

Tsuga canadensis 'Jeddeloh'.

Tsuga canadensis 'Cole'.

Tsuga canadensis 'Kelsey's Weeping'.
Tsuga canadensis 'Stockman's Dwarf'.

Tsuga canadensis 'Cole' in full sun.
So You Want To Start a Nursery

Text and Photography Bob Fincham

During the late 1980s and early 1990s, my late wife Dianne and I owned a wholesale nursery in Oregon, while also making retail sales through Coenosium Gardens. I used to mail a quarterly newsletter to our customers about the nursery, sale specials, and plant stories. A few of the readers of this article may recall this newsletter: Mitsch/Coenosium Notes.

One of the articles responded to a common question from our retail customers who wanted information about starting a nursery. I felt it was appropriate to resurrect and update the article that I wrote about that same topic. Specialty conifer nurseries used to be more common than they are today. There are advantages and disadvantages to starting such an operation. If the reader is thinking about doing something along these lines, perhaps reading this article will help in the decision-making.

I have had many discussions with individuals who were thinking about starting a nursery. A tour of a nursery greenhouse and gardens filled with many different plants is intriguing and looks like fun. It looked that way to me in the early 1970s, and Coenosium Gardens started as a hobby that got out of control.

The very first question to consider is why enter the nursery business in the first place. Sometimes a person chooses the nursery business as a career from the start. They either always enjoyed working with plants or were part of a family business.

I have found that those who enter the nursery business as a career change do so for various reasons: dissatisfaction with a present career, the loss of a job, the need to do something less stressful, or retirement from another profession. Whatever the reason for changing, financial improvement is seldom a primary consideration. After all, the nursery business is a form of farming, and few farmers amass much wealth.
trees. He figures that when the trees become large enough, they will be sold for a profit.

This same story can apply to just about any facet of the nursery business. Take the person who completes an extension course and decides what to grow through discussions with classmates and the instructor. Unfortunately, just like the orchardist, this person has put the cart before the horse. Unless a person takes a very systematic approach to enter the nursery business, the results can be disastrous. A neglected field of poorly grown stock becomes choked out by weeds, or, just as easily, an area of beautifully nurtured but unsold plants can be the outcome.

Several decisions must be made by the aspiring nurseryman. They do not necessarily have to be made in the order presented, but they have to be made.

A person should decide if they are going to have a wholesale or retail operation. There are fundamental differences between the two. The wholesale nurseryman must grow many plants of only a few varieties while dealing with a relatively small number of customers. This kind of nurseryman will be able to concentrate almost entirely on growing and working with the plants.

Retail nurserymen handle a smaller number of plants with a wide variety. They deal with a much larger customer base than the wholesaler. Retailers must be more of marketing experts and know the growth requirements and landscape uses of a substantial number of plants.

Suppose a person enjoys working with many different people daily
Once the retail/wholesale decision is made, then marketing must be considered. A course on marketing at a local community college can be a good investment for the new nurseryman, especially since marketing involves several parameters. Where are the customers located? The plants must be suited to their tastes and growing conditions. Where are the competitors? A retailer must be most concerned about the local competition, while a wholesaler must deal with local and distant competition. What kinds of plants are lacking in your marketplace? Are any of these plants something that the nurseryman would like to grow? How can a market be created for some of the items that you want to grow?

The decisions up to this point should have provided some direction about selling what is to be grown. Now it is time to make some specific determinations about the crops. The wholesaler may do some brokering but will produce the majority of what is to be sold. He must grow large quantities of relatively few items. The nurseryman must be a successful farmer as well as an astute businessperson.

On the other hand, retailers will purchase much of what they sell, growing a much smaller percentage of their crop than the wholesaler. They must work with relatively small quantities of many different varieties. However, even so, some growing is beneficial since some costs can be reduced. With a good plan, the retailer won’t have to worry about shortages of choicer plants.

Marketing studies will help both the retailer and the wholesaler decide what material to offer for sale. The wholesaler should take things at least one step further.

and a wide variety of plant material. In that case, the retail plant business should be considered. Suppose a person does not like to spend a lot of time selling plants and prefers concentrating on the nursery’s farming aspects. In that case, the individual should be a wholesale grower.

A newcomer to the nursery business must choose one or the other. Trying to do both retail and wholesale will usually mean that neither is done very well. There is too much dilution of effort. An experienced nurseryman can consider combining retailing and wholesaling into one operation, but care must be taken. A wholesaler does not want to compete with one’s own local customers by opening a retail area. Likewise, a retailer who opens a wholesale department will find many retail customers expecting to make wholesale priced purchases.

Once the retail/wholesale decision is made, then marketing must be considered.

A course on marketing at a local community college can be a good investment for the new nurseryman, especially since marketing involves several parameters. Where are the customers located? The plants must be suited to their tastes and growing conditions. Where are the competitors? A retailer must be most concerned about the local competition, while a wholesaler must deal with local and distant competition. What kinds of plants are lacking in your marketplace? Are any of these plants something that the nurseryman would like to grow? How can a market be created for some of the items that you want to grow?

The decisions up to this point should have provided some direction about selling what is to be grown. Now it is time to make some specific determinations about the crops. The wholesaler may do some brokering but will produce the majority of what is to be sold. He must grow large quantities of relatively few items. The nurseryman must be a successful farmer as well as an astute businessperson.

On the other hand, retailers will purchase much of what they sell, growing a much smaller percentage of their crop than the wholesaler. They must work with relatively small quantities of many different varieties. However, even so, some growing is beneficial since some costs can be reduced. With a good plan, the retailer won’t have to worry about shortages of choicer plants.

Marketing studies will help both the retailer and the wholesaler decide what material to offer for sale. The wholesaler should take things at least one step further.
Attending a local trade show will provide a lot of useful information. Obtain catalogs from as many distributors as possible and find out what they are growing. Look for everyday items. Those are things that must sell well. Talk to the growers and find out what they have sold out of. Talk to other buyers and get a feel for the kind of things they want to purchase. Having open eyes and studying what others are growing will help determine what to grow. Most of what growers produce may be based upon other criteria, sometimes nothing more than gut instinct.

Do not just go to a nursery in your area and ask them what you should be growing. Do not ask a future competitor for their own unique methods of producing salable plants.

If you decide to be a grower, either as a wholesaler or as a retailer producing part of your own merchandise, you must obtain liners. Liners are the young, immature plants that will be grown into a salable product. Liners must either be purchased from a propagation nursery or propagated in-house. Unless you are willing and able to expend considerable capital in obtaining stock plants and constructing propagation facilities, purchasing is a much wiser choice. With so many other things to learn, learning the art of propagation could dilute your effort. In many cases, in-house propagation is not as cost-effective as purchasing liners. The propagation nursery will also help make some decisions about items to grow but only if asked about specific plants. Even then, since a propagation nursery is not a grower, there is some guesswork involved.

If you have decided upon retail, you must determine what market niche you want to occupy. For example, do not try to specialize in one-gallon junipers and azaleas in an area where big box stores sell the same or similar items. Consumers shop for those items, and the small nursery cannot compete with the big box store’s buying power or prices. The smaller retailer must offer service and a product line unavailable at

Gee Farms is a large, retail, rare conifer nursery in Stockbridge, MI (USDA Zone 5b), that is popular with ACS members. This picture was taken in July 2012 at the ACS National Conference in Ann Arbor, MI.
the big box stores. Do not ignore their store material completely. Carry some of their items to complement your main line.

Likewise, the small wholesaler should not specialize in commodity items (fast-growing, gallon material). The big commodity producers can profit by selling these plants cheaper than the small grower can raise them. Besides, commodity items are easy to produce and grow, leading to cyclical gluts and price wars between the big producers.

With smaller yards and a more plant-oriented public, homeowners are becoming more discriminating about their landscapes. Many small retail nurseries do quite well specializing in dwarf conifers, trees, and shrubs. The retailer must be well versed in the product to have good sales. Even a willingness to install small garden landscapes may be necessary for some parts of the country.

Bonsai have also become quite popular throughout the country, and some nurseries specialize in bonsai-suitable plant material. The retailer must be knowledgeable about the subject and must even be willing to arrange classes for his customers. A finished bonsai commands a high price to compensate for the labor involved in producing it, which often makes it a complicated item to market.

One major problem faced by all nurserymen at one time or another is how to handle unsold stock. Since plants are living, growing things, they always need more space. When plants are not sold within an
allotted time period, they can clog the entire nursery. Be prepared to burn or discard more than a few plants almost every year when they do not fit selling cycles.

Having a special sale does not always work. Customers become conditioned and will often wait for these special times to buy plants, especially if end-of-the-year sales become a standard feature. Work with a few re-wholesalers who will take back plants that have outgrown your marketing scheme, in order to recoup some income. Or simply destroy the plants. Taking a smaller loss now is preferable to the more significant, long-term loss of being forced to use frequent sales to move plants.

The most serious difficulty for the nurseryman is debt. Avoid it. Sometimes debt is necessary to get through an occasional slow period in the economy, but borrowed money must be repaid. Suppose a nursery is servicing a large debt. In that case, that debt becomes a sponge, soaking up a considerable portion of a tight profit margin, under which all nurseries operate.

When starting a nursery, scale it to fit your expertise and budget, being careful that the two balance each other.

If you want to start a nursery, do your homework first. Growing and selling plants can be an enjoyable and very satisfying experience. Although it is seldom rewarding in a significant financial way, it is rewarding in ways that cannot be found on a spreadsheet. These other rewards should be the ones that make you want to be a nurseryman.

Coenosium Gardens is an example of the third type of nursery that is a modification of the retail nursery model I discussed earlier. It was a hobby nursery started by Dianne and me in 1979. I will mention a few things about its history as a model for any hobbyist who might be thinking of trying something similar.

It was during the summer of 1978 that I got the idea of starting a conifer business. I wanted to collect rare conifers. I had known for some time that I could not keep buying conifers on a teacher’s salary without some additional income. I also realized that I could not get collectors to share some of their treasures without offering something in trade. On top of it all, I had recently lost a few irreplaceable plants to rabbits. I needed a way to have back-up plants for rare ones that I had lost.

I had several significant decisions to make that spring and summer of 1979. First, would I graft to order, or would I sell from available inventory? I decided to do both. The new grafts would be shipped after June 1, while the older plants would go out in mid-April.

The second decision involved naming my new business. In 1980 I studied a dictionary of plant terms to find a name. I got to the C’s and came across the word Coenosium. It meant “plant community”. I figured that would be a great name. It was a name that would be unique to my nursery since nobody in their right mind would use a name that no one could pronounce.

My third decision involved advertising. I mimeographed my first plant list with brief descriptions and mailed it out to anyone who wanted it. I advertised in the publications of several plant organizations to find these people. I sent out over a hundred lists and got quite a few shipping orders in the spring of 1983. It would be my first shipping season. A year later, I published my first real catalog with pictures. The catalog that resulted set a standard. There was no catalog at the time of rare and unusual conifers for retail sales that included pictures.

I had converted most of the lawn area on our 2/3 acre into conifer gardens. Those gardens supplied the scion wood for propagation. I also had two blocks of container plants that I enclosed with white poly for the winter. Collectors used to visit regularly and were always so happy to leave with a load of rare conifers. They came from as far away as Cincinnati, OH.

Coenosium Gardens’ mail-order was proving to be successful and operated for thirty-four years. It was never a sole source of income but worked very well at paying its own way and financing my hobby.
I first met Marvin in 1995 when we both became members of the Board of Directors of the ACS. Marvin was secretary for several years, and I became president. We worked closely together, and I can say that it was a pleasure, as communications between the two of us were frequent and pleasant. In the next few years, Joan and I got to know Emelie and Marvin well, and we had a wonderful camaraderie with them.

Chub Harper and Marvin were good friends. Chub was his mentor. Marvin became the ACS spokesman for Kansas City, MO, and the number of members in the area grew because of his influence. For many years, he ordered conifers from Larry Stanley for members in Kansas City. Members who knew him treated him with great respect. He seemed quiet and laid back but he was a very serious and dedicated person in all his life activities. He was trusted by everyone. He knew how to work with various personalities when there was a conflict or misunderstanding.

Marvin was modest. When I asked him to become president, he demurred saying that he was new in the Society and knew little about conifers. My response was that he knew enough and that his established managerial skills would pull him through. He served as president for three years, longer than any other president at the time.

Marvin was the creator and writer of the ACS’ Policies of the Board. This is the working manual that the Board uses to reference its past and current decisions. We both reviewed all the minutes from the establishment of the Society to the present time. Marvin was also dedicated to helping Emelie with her sorority work. Later, Marvin was the kind caregiver of Emelie for several years when her health was failing. We have memories of some good times. After a meeting in Atlanta, the four of us and Marty Brooks took a post tour to Callaway Gardens and other sites in the area. Marvin rented a big van and made all the arrangements. Marvin visited with us for a couple of days, and we toured several nurseries including Dennis Dodge's and Nancy Vermuelen's. We sent Halloween cards to Marvin and Chub for many years. Marvin suffered the memory of World War II as he was a prisoner of war and nearly lost his life. Sometimes he needed to talk about this.

Marvin was active in helping Powell Gardens and donated many plants. At his request I sent him a Sequoia giganteum (giant sequoia) for the arboretum. We weren’t sure that it would be hardy there, but Marvin reported that it grew well.

We lament Marvin’s passing as he was a true giant among us and, more than that, a kind person.
A Reference Garden Update: The Calibraro Garden at the Ambler Arboretum of Temple University
Kathy Salisbury, Director, Ambler Arboretum of Temple University

This report was originally supposed to be one updating the American Conifer Society on the progress and activities of the Ambler Arboretum (USDA Zone 7), as it relates to our recently awarded reference garden status.

Quickly, overnight, this changed. On Sept 1, 2021, a confirmed EF2 tornado, spawned by the remnants of Hurricane Ida, tore through the Temple University Ambler Campus, Ambler Field Station, and the Ambler Arboretum.

First – the Calibraro Conifer Garden looks nearly untouched. We had the most perfect eastern red-cedar (Juniperus virginiana), which was tipped up in the storm, and we lost our limber pine (Pinus flexilis), but, other than that, our reference garden still looks great!

We cannot say the same for other conifers around the campus, the canopy, and the collection as a whole. This storm was a devastating loss to the Arboretum. Hundreds of trees were lost.

In some places, we lost the entire canopy. Our old-growth forest, consisting of trees that were hundreds of years old, was reduced to pick-up-sticks, littering the forest floor. A shadow of their former selves, those trees that were left standing are not only leafless but branch-less, too.

Our conifers suffered. The Arboretum featured dozens of very mature eastern white pines (Pinus strobus), dotted all over the campus. Now, just a few remain. Towering Norway spruces (Picea abies) and Caucasian spruces (Picea orientalis) used to shade walkways and screen views of our high-traffic work yards. They don’t now.

Our only two Himalayan pines (Pinus wallichiana), giants in the landscape, were snapped in half. Our pinetum lost some of the Japanese black pines (Pinus thunbergii), as well as eastern white pines (Pinus strobus). Thankfully, the Scots pine (Pinus sylvestris) still stands tall.

The smaller conifers around the Arboretum fared better, even though we did lose a number of various Chamaecyparis obtusa (Hinoki cypress) specimens.

Our immense blue Atlas cedar (Cedrus atlantica ‘Glauc’a’) and graceful weeping Norway spruce (Picea abies ‘Pendula’) still greet visitors and are there to teach students, when the time is right again.

This was a sad blow to the Arboretum. Each tree is connected in ways that we may never know to the humans that use this campus. The Arboretum is changed forever, and, although we grieve what was, and the long lives those old trees still had ahead of them, we are optimistic and excited about what can become of these new spaces, so full of opportunity.

We are currently still working on clean-up and recovery. There was a lot of damage, in addition to the plants we lost. However, we are seeing the nearing of the end of the response and looking at the beginning of planning what’s next. We certainly know that landscaping about climate change and resilience will be at the top of the list.
My favorite dwarf conifers? Impossible to say. All my 450+ dwarf and miniature conifers are my favorites. There are, however, those that always catch my eye. Sometimes it is simply the pleasing shape of the plant, but often it’s the cultural history behind the plant or where in the world it originated. And then, often, it is the memories of the kind people who developed the cultivars and made it possible for me to pursue my passion for collecting. Over time, it becomes mostly about the people that share the same joy.

I photographed a few examples of conifers that always catch my eye. Connecting the cultivar to its people and history is the fun element.

*Pinus balfouriana* ‘Shelby’

*Pinus balfouriana* ‘Shelby’ (Shelby foxtail pine) is a real prize. It came to me from Dennis Hermsen (Dennis Hermsen Garden and Nursery, Farley, IA) in 2015 and is happy, living here in Southern Illinois (USDA Zone 6b), despite originating from hard-to-reach regions of the Southern Sierra Nevada Mountains. Just as interesting, I am successfully growing both single-needle pinyon (*Pinus monophylla*) and double-needle pinyon pine (*Pinus edulis*) from different areas of the Southwest. They played an important role in the culture of indigenous peoples on our continent.

*Cryptomeria japonica* ‘Yellow Twig’

*Cryptomeria japonica* ‘Yellow Twig’ (Yellow Twig Japanese cedar) arrived in 2017 in a four-inch pot from Larry Stanley (Stanley and Sons Nursery, Boring, OR) and quickly grew into a brilliant beauty. It simply glistens in the garden, which makes it hard not to appreciate. This *Cryptomeria* absolutely loves it here, perhaps because the local climate mimics its home areas in Japan.
Pinus sylvestris ‘John Boy’ (John Boy Scots pine) came in 2018 from Nathan Miller (Miller’s Manor Garden Nursery, Canby, OR). I have marveled at the quality of Nathan’s grafts and have many of his plants in my collection. I appreciate his talents and keep several conifers from Nathan in containers living on my deck. As a rule, Pinus sylvestris does well here.

Pinus ponderosa ‘Pennock Pass Pincushion’ (Pennock Pass Pincushion ponderosa pine) is absolutely my choice for ponderosas, although other ponderosa cultivars have special histories and shapes. This plant originally came to me in 2015 from Kirk Fieseler (LaPorte Avenue Nursery, Ft. Collins, CO), who found it about 30 miles west of town. It is so tight that you can’t push a finger through it. “P3”, as Kirk refers to it, is so impressive that he gives it to friends as a gift. Also, to Kirk’s credit, is his commitment to keep many of the finds of Jerry Morris in cultivation through his relationship with the Denver Botanic Gardens.

Tsuga canadensis ‘Cole’ (Cole’s prostrate Canadian hemlock) is a new arrival to my collection from Bruce Appeldoorn (Appeldoorn’s Landscape Nursery, Bostic, NC). Many of you know him as a contributor to CONIFERQUARTERLY, and he is indeed among all the friendly people I’ve been fortunate to meet in my collecting endeavors. ‘Cole’ is described as a “rock garden jewel” by John C. Swartley in The Cultivated Hemlocks (Google Books, 1984) and was found in 1929 by H.R. Cole near the bottom of Mt. Madison (NH). Great cultivars meet the test of time, and this is among the best.

Pinus parviflora ‘Kusu dama’ (Kusu dama Japanese white pine) came to me in 2013 from the late Dennis Dodge (Bethlehem Nursery, CT). Dennis had a crusty but very kindhearted personality and would sometimes send me plants “just to try”. He once asked me when I was going to get serious about collecting and pursued the issue until he was convinced that I got his meaning. ‘Kusu dama’ was in the last group of plants that arrived before his passing, and I had no way to translate the name. I asked Talon Buchholz for help through his wife, and the translation came back as “blue ball”, which it seems to be.

Finally, I have a photograph of a group of conifers in containers. These plants are waiting their turn to be
introduced into the main garden and represent a fine group of people and nurseries committed to dwarf conifers. Left to right and top to bottom: *Picea orientalis* ‘Lil Sky’ (Lil Sky Caucasian spruce) from Talon Buchholz (Buchholz & Buchholz Nursery, Gaston, OR), *Chamaecyparis obtusa* ‘Little Markey’ (Little Markey Hinoki cypress) from Bruce Appeldoorn (Appeldoorn Landscape Nursery, Bostic, NC), *Pinus mugo* ‘Congesta’ (Congesta mugo pine) from Larry Stanley (Stanley and Sons Nursery, Boring, OR), *Picea omorika* ‘Wodan’ (Wodan Serbian spruce) from Gary Gee (Gee Farms, Stockbridge, MI), *Abies lasiocarpa* ‘Schneider’ (Schneider subalpine fir) from Jason Hupp (Drake’s Crossing Nursery, Silverton, OR), *Thuja occidentalis* ‘IsslPrim’ Primo™ (Primo™ eastern arborvitae) from Iseli Nursery (Boring, OR), and *Sequoiadendron giganteum* ‘Conrad Appel’ (Conrad Appel giant sequoia) from Paulie Seidel (Crowfoot Nursery, Sandy, OR).

Although his plants are not photographed for this article, Bob Fincham has been a steady educator and contributor to the world of dwarf conifers. His book, *Gone But Not Forgotten* (Coenosium Press, 2016), highlights many of the people important to the development of our mutual passion. In a recent trip to the Pacific Northwest, I heard his name mentioned with a couple of emerging conifer nurseries that are already awesome in their own right. I was fortunate to get to meet Paulie Seidel at Crowfoot Nursery (Sandy, OR) and Gil McNeal (Burkland Gardens, Mt. Vernon, WA). It is people like these with a passion for conifers, along with others mentioned in the article, who are carrying on providing the next conifer that “Catches the Eye”.

Jeff Ashauer has had a life-long love for trees and has collected dwarf and miniature conifers his entire adult life. He is a happy grandfather and lives with his wife Bettie in rural Southern Illinois (USDA Zone 6b).
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