THE
NATIONAL
GARDENER

Spring 2022
gardenclub.org
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Summer 2022 – July 1
- Convention Highlights
- Container Gardening
- Award News
- Potpourri of Ideas

Fall 2022 - October 1
- Engaging Youth
- Blue and Gold Star Memorial Markers

Submissions Welcome and Encouraged!

About Us
National Garden Clubs, Inc. is a 501(c)(3) organization that aims to promote the love of gardening, floral design, and civic and environmental responsibility and we help coordinate the interests and activities of state and local garden clubs in the U.S. and abroad.

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The National Gardener (ISSN:0027 9331) is published quarterly by National Garden Clubs, Inc. 4401 Magnolia Avenue, St. Louis, MO 63110-3492.
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Deadline/Publication Dates:
- Fall Issue Sept. 1/Oct. 1
- Winter Issue Dec. 1/Jan. 1
- Spring Issue Mar. 1/Apr. 1
- Summer Issue Jun. 1/Jul. 1

Advertise in TNG:
- Full Page $650
- Half Page $350
- Quarter Page $175
See the TNG page for more information on advertising.

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Welcome Spring!

Spring is the season of renewal and new beginnings, the blossoming of nature. As the ground grows softer, gardeners plant their seeds. Spring ushers in the time to renew our commitment to the environment.

National Garden Clubs, Inc. is committed to the conservation and health of our planet and declares April 2022 as PLANT AMERICA MONTH! (See the printable proclamation on the following page.)

PLANT AMERICA inspires members to branch out beyond the confines of their backyard beds and apply their ardor for gardening to broader community initiatives.

PLANT AMERICA’s roots began in 2017 under the leadership of former NGC President Nancy Hargroves. NGC’s focus on community-centered projects and efforts seeds our PLANT AMERICA ambition. We positively influence our environment by dedicating our work to preserving ecosystems and engaging in civic beautification.

PLANT AMERICA embodies NGC’s commitment to raising awareness about environmental issues, including land preservation, water conservation, sustainability and access to green space such as public parks.

PLANT AMERICA promotes the love of gardening, floral design, civic and environmental responsibility.

PLANT AMERICA projects enhance public lands, honor our veterans with Blue Star landscaping projects and educate people about the joys of gardening. They create pride through local, city and county projects. NGC awards PLANT AMERICA Community Grants to member clubs for these impressive and creative projects.

PLANT AMERICA envisions a growing community of not only dedicated gardeners but also citizens who are passionate environmentalists and nature enthusiasts.

PLANT AMERICA embraces environmental challenges as a source of inspiration for new projects and initiatives. Through education and communication, NGC leads our communities into a greener and cleaner future.

Earth Day and Arbor Day, observed in April, are dedicated to preserving and rejuvenating our natural environments. Earth Day’s 2022 theme, “Invest in Our Planet,” calls on all of us to preserve, protect and restore the environment. We contribute to the health of our families, livelihoods and ourselves by investing our energy and efforts into caring for our planet.

As we celebrate the 150th anniversary of Arbor Day, PLANT AMERICA “Each One, Plant One” encourages everyone to plant a native tree and honor Arbor Day.

Please join NGC and share your love of gardening in and around your community by celebrating National Garden Week June 5-11, 2022.

Spring is the season of a new beginning. As fresh buds bloom, put on your garden gloves, grab your tools, PLANT AMERICA and Play Outdoors!

Mary’s Musings

The environment, after all, is where we all meet, where we all have a mutual interest. It is one thing that all of us share.

Lady Bird Johnson

Mary’s Musings

The environment, after all, is where we all meet, where we all have a mutual interest. It is one thing that all of us share.

Lady Bird Johnson
National Garden Clubs, Inc.

PLANT AMERICA MONTH

Proclamation

Whereas, April 22, 2022 is the 52nd anniversary of Earth Day, which recognizes and celebrates the birth of the global environmental education and stewardship movement grown out of an awareness of our impacts on the local and worldwide communities;

Whereas, April 26, 2022, is the 200th anniversary of the birth of Frederick Law Olmsted, renowned conservationist and landscape architect credited with having created public parks providing city dwellers “a sense of enlarged freedom,” being restorative in nature and connecting communities;

Whereas, in April, the last Friday of the month, April 29, 2022, is the 150th anniversary of Arbor Day, which recognizes and celebrates the critical role of trees in the earth’s environment and in creating healthier, safer and more connected communities;

Whereas, the world has endured for the last two years, a pandemic where so many members of our communities have sought refuge and taken solace, hope and sustenance in their gardens;

Whereas, it is the Mission Statement of the National Garden Clubs, Inc. to provide education, resources and national networking opportunities for its members to promote the love of gardening, floral design and civic and environmental responsibility and to share these resources within their communities;

Whereas, the National Garden Clubs, Inc. instituted the Plant America program to provide resources and support for its local member clubs and the gardening projects they have undertaken in partnerships with their communities; and

Whereas, the Board of Directors of the National Garden Clubs, Inc. wishes to acknowledge and celebrate the import and confluence of these events of April 2022, now, therefore, be it

Resolved, That National Garden Clubs, Inc. hereby declares April 2022 as PLANT AMERICA MONTH.

Mary Warshauer
NGC President 2021-2023
Climate Change Impact
Victoria Bergesen

Reliable groups of scientists have sent us dire climate change warnings for many years. However, the United Nations Intergovernmental Panel on Climate Change (IPCC) report of February 28, 2022 is the most alarming. We ignored or played down the risks for decades. Catastrophe is now inevitable. Even with these warnings, we still should do everything we can to lessen impacts. (Just as we cannot eliminate all auto collisions, wearing seatbelts has saved untold lives in the last decades.) As garden club members and community influencers NOW is the time to act and save the communities and world that we love.

When invited to write articles for this issue of TNG, the Environmental Concerns Committee agreed to write about how climate change is affecting their areas of expertise. Please reach out to any members of the committee to help with projects in your area. The committee chairs are ready and willing to advise and help. Environmental Concerns Committee members and their specialties are:

- Victoria Bergesen, Climate Change, Air Quality
- Jacqueline Connell, Water Protection
- Michelle Mensinger, Invasive Species and Pollinators
- Bonnie Rosenthal, Land and Wildlife Conservation
- Gail and Hank Vanderhorst, Sustainable Consumption
- Heather White, Penny Pines

Please share your projects on NGC Social Media. Even a small project may inspire other garden clubs. Read ahead for more information on climate change and what you can do to help. Let us try to turn the page on environmental disaster.

Victoria Bergesen is the NGC Environmental Concerns Committee Coordinator and Gardening with Nature Co-Chair.
consume responsibly
Gail Vanderhorst
It is time to think about sustainable consumption, again. Whether shopping at the mall or shopping online, think about items you can purchase that have more than one use or were made naturally. For instance, there are items made from recycled products. Wallets may come from recycled leather or plastic and jewelry from recycled airplane parts, other metal pieces and even left over military articles. When shopping for food, think about buying from local farmers' markets or food stands to prepare your home cooked meals. They are fresher compared to big box stores and often organic. In addition, for sure, save those chicken bones and ham hocks to make chicken soup, split pea soup or stock for adding to other meals. Reduce, reuse and recycle. Look for toilet paper, paper towels and cardboard made from recycled paper. Look on the back of greeting cards to see if they are made from recycled paper and use them to send your greetings. Most of us are already doing these things but if we can add one more item to the “to do” list, then, we are improving our world.

Gail Vanderhorst grew up in the San Fernando Valley and as a young child walked in her grandmother’s and mother’s gardens. She loved being outdoors which catapulted her to follow her mother into garden clubs.

Sustainable Gardening
Diane Hughes
Sustainability is today’s catch phrase. According to Merriam-Webster, sustainable is, “relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.” Airlines talk about using sustainable fuel, communities strive for sustainability and the United Nations has 17 Goals of Sustainable Development. Gardeners have always thought about sustainable plants and areas of planting.

Many aspects of sustainable gardening are catching on even more since the beginning of the pandemic.

✓ Harvest rainwater.
✓ Create productive food gardens.
✓ Grow your own vegetables, right outside your door, in raised beds.
✓ Attract pollinators with herbs and flowers.
✓ Plant in self-watering beds that store water.
✓ Install balcony planters by city dwellers.

Turf grass is America’s number one “crop” but has no ecological value. Our goal should be to replace lawns with no-mow alternatives that offer food and beauty to pollinators, wildlife and your family. Pending local ordinances, more wild gardens may need to look tended rather than un-intended.

A quote from the January 2022 issue of Fine Gardening Magazine, “We can learn that sustainable gardening is a term that has no technical definition. It is the concept of using gardening practices that cause no harm to the earth and its inhabitants while trying to enhance it.”

THINK – Support, Keep Alive, Maintain, Reinforce, Nourish, Good Environmental Stewardship. The use of companion plants helps to repel pests and attract beneficial insects. Using compost in your beds or foundation plantings helps to retain moisture and protect roots from temperature fluctuations. Using these “helps,” allows us to be less dependent on fertilizers and insecticides.

Sustainability is a lifestyle of getting things to last and making life better. It is more nurturing to the planet and us. Choose the path of sustainability with the following.

✓ Respect and improve soil using native herbaceous plants, shrubs and trees.
✓ Feed your family with organically grown fruits, berries and vegetables.
✓ Use renewable resources that nature provides - from rainwater to gravel.

YOU will be a sustainable gardener if you protect, restore and enhance the ability of gardening, to provide an ecosystem that benefits humans and other organisms.

Diane Hughes enjoys her 50 years of garden clubs including being the former chair of the NGC Civic Development and Wildflower Committees. She is a member of clubs in Pennsylvania and Florida.
Forests Save Water and Soil

Jacqueline Connell

Forests, often referred to as the "lungs" of the planet, convert carbon dioxide, released by plants, into the oxygen we need to breathe. Plants’ carbon sequestration is instrumental in mitigating the effects of climate change and regulating global temperatures. However, forests are also giant "sponges". They are crucial to the earth’s water cycle, biodiversity and soil conservation. Forests control the moisture level of our ecosystem. They purify water, slow runoff and hold water to recharge springs, streams and groundwater. They control the flow of water from mountain uplands to the croplands and to urban areas.

Forests protect soil from wind and water erosion. Thus, they lower the amount of sediment washing into streams, lakes and reservoirs. Forests are the natural home and habitat for an abundant species of animals, birds and insects. They house millions of genus of plants including important medicinal species. Forest soils also support microorganisms that sustain the planet, including nitrogen-fixing bacteria that help regulate earth’s nitrogen.

While healthy forests are essential to wildlife habitat, forests' roles go far beyond their boundaries. In some coastal areas, scientists are finding the intrusion of too much fresh water, unregulated by forests, is changing the salinity of water in salt water estuaries endangering wildlife nurseries.

So what can gardeners do? We can treasure the forests around us and be their advocates. We can support sustainable harvest practices and reforestation initiatives. We can make our yard a tree habitat and link it to our neighbors' yards. We can establish or fortify riparian buffers and plant a diversity of native trees, shrubs and understory plants along waterways. We can go "forest bathing" by relaxing in and enjoying the freshness and beauty of our forests while nurturing the biodiversity they support.

Jacqueline Connell is the NGC Water Quality Chair and former Environmental Concerns Coordinator. She resides in Massachusetts.

Saving Forests

$68 At A Time

Heather White

NGC and the USDA Forest Service maintain a partnership sustaining our national and urban forests through Penny Pines. Your Garden Club can participate in a meaningful and practical conservation project by contributing $68 to a Penny Pines plantation as part of the cost of planting replacement trees indigenous to a particular damaged area. Whether by fire or by other natural catastrophe, pine trees and other trees are replaced. You may designate a specific state you wish to have benefit from this contribution. For more information and to donate, visit our NGC Penny Pines.

Heather White is the NGC Penny Pines Chair and lives in Texas.
Climate Change and Pollinators

Michelle Mensinger

Like all organisms, plants and pollinators are only able to survive under specific climate conditions. When changes occur, they must adapt to these new situations. Some species of butterflies and bees may try to migrate to regions where their optimal environment is still present or they may go extinct! Researchers continue to study evolution and adaptation to fast-evolving climate changes in the USA. Some species of bees can advance their emergence time when winters are warmer. Bumble bees and other ground nesting bees, especially in the northern states, are emerging earlier than usual, due to warming trends in early spring. With no flowering plants to sustain them, many can die. WE CAN HELP! Consider planting many different native species and providing nesting resources for migrating pollinators or those stressed with climate change. Adding a container of early blooming flowers can help early arrivals.

Climate change affects hummingbirds, as well as bee populations. Four species of hummingbirds in North America are at risk because of rising temperatures. These are the Allen’s Hummingbird, Black Chinned Hummingbird, Calliope Hummingbird and Rufous Hummingbird. Warmer temperatures are forcing these four species to abandon their native areas for cooler and more stable environments. Intense heat is very dangerous for hummingbirds, as it forces them to find shade to cool off, rather than feed on nectar, which means they could starve! Hummingbirds have a very high metabolism, which demands that they constantly need to eat.

WHAT CAN WE DO TO HELP POLLINATORS?

- Plant a variety of pollinator-friendly flowering plants that are native to your climate.
- Stop or limit pesticides.
- Create a habitat that is friendly to bees by placing beehives and Mason bee houses.
- Leave dead logs around for ground bees, such as Bumble bees, to use as nests.
- Provide native, pollen rich plants in your garden for the bees and others to feed.
- Plant milkweed for Monarchs to lay their eggs and provide food for their larvae, plus nectar for other pollinators.
- Plant early blooming bulbs and flowering plants, especially in northern states.
- Plant a variety of nectar rich plants that bloom through summer and fall to provide continuous blooms for pollinators.

Michelle Mensinger is the NGC Pollinator Garden Chair and Invasives Species Chair. She is the NEGC Bird, Butterfly and Wildlife Chair and an avid gardener, wildlife photographer and naturalist. Michelle lives in New Hampshire.
Global Environmental Concerns
Jenifer Herz Wells

Environmental disasters continue to be a global concern including the International Affiliate Regions 1, 2 and 3 of Mexico, Central America and South America. Statistics show countries in these regions are making strides in their sustainability and environmental efforts, placing Costa Rica, Uruguay and Colombia at the top of the list. New indicators and measurements include public policies, for the first time. This shows the willingness and desire to improve the quality of the environment.

Below is the table that measures the assigned index for each country, with 100 being the best. The final number takes into consideration the environmental sustainability of the countries in the area, including percentage of emissions, biodiversity, forests, agricultural pollution, water resources, air quality, natural disasters, environmental conflicts and social indicators.

<table>
<thead>
<tr>
<th>Country</th>
<th>Final Index</th>
<th>Emissions</th>
<th>Energy Matrix</th>
<th>Forest &amp; Biodiversity</th>
<th>Agricultural Pollution</th>
<th>Water Resources</th>
<th>Air Quality</th>
<th>Waste Management</th>
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We consider environmental disasters to be those of non-natural origin, that is, an alteration of the environment by direct action of people. An example of an intentional deed is indiscriminate logging, thus eroding the soil and making it more susceptible to flooding. An unintentional action may be an oil spill, which is the product of negligence. Unfortunately, the country that presented with the most environmental disasters was Peru, with forest fires and a large-scale oil spill. This occurred on January 15, 2022, when 10,396 barrels of oil, equivalent to about 1.65 million liters or 436,000 gallons, dumped into the sea. It affected marine life in the area such as fish, otters, mollusks and birds.

The Parque de las Leyendas, which is the Lima zoo, made its veterinarians and biologists available to the state to be able to save the birds, although the percentage of death was very high. Many people collaborated by removing the oil from the coasts and washing the birds. The local community provided human hair to create absorbent barriers made of straw, cane and hair. The hair does not absorb water but absorbs oil or anything adhering to the oil, thus being able to clean the surface of the sea. Unfortunately, the problem is that another part of the oil dissolves and sinks to the bottom. This solution of volunteering time and hair is practical and inexpensive. Garden clubs in our country can help once the cleaning of the sand is complete.

Another country that constantly suffers from oil spills is Mexico, and it does not have a Ministry of the Environment or anything similar. Floods and landslides in Brazil killed nearly 100 people. It is most worrisome that their government reduced spending on the environment. It has also suffered many forest fires.

We know that problems on this scale must be solved by the corresponding governments, but we can do our part if we take direct action by electing leaders demanding more interest in everything that may affect our planet. We, from our clubs and institutions, will continue to do our bit, which little by little could make a difference.

Jenifer Herz Wells serves on the Environmental Concerns Committee - International Affiliates. She is a flower show judge and lives in Peru.
Where There is Fire - There is Smoke

Victoria Bergesen

A landmark United Nations report concluded the risk of devastating wildfires, around the world, will surge in coming decades. Climate change further intensifies what the report describes as a “global wildfire crisis.” (New York Times 2/23/22) It states that climate change has turned landscapes into tinderboxes with an increase by as much as 57% by the end of the century. Fifty researchers from six continents contributed to the narrative.

What is the current extent and severity of wildfire pollution?
- California fire experts estimated that the October 2017 forest fires produced more carbon dioxide in one month than all the cars in California produced in a year.
- Arctic wildfires, in 2020, released more polluting gases in the June than any other month in 18 years of data collection.

Wildfires naturally produce carbon monoxide, carbon dioxide, nitrogen oxides and volatile organic compounds. As they increasingly devour human structures, they produce toxic smoke from chemicals, plastics and fossil fuels. The biggest health threat from smoke is tiny particulate material or PM2.5. These microscopic particles can penetrate deep into lungs. They can cause a range of health problems, from burning eyes and a runny nose to aggravating chronic heart and lung diseases. Exposure to particle pollution is linked to premature death.

Prevailing winds, generally from the west to the east, have brought air pollution across the country. Daniel Swain and colleagues at UCLA conducted a 20-year study tracking PM2.5 and ozone (both health hazards) in the atmosphere. They measured these materials from the West Coast to as far east as Montana and New Mexico. During that study period, the occurrence of these two pollutants increased from 18.9% to 44.6% - a precipitous increase for such a short period. The study, along with past research, suggests that an increase in atmospheric ridges of high pressure, sitting in place, is both driving the start of fires and exacerbating the impact of the resulting air pollution by trapping it.

Swain says the research confirms how widespread the human health impacts are. “Most of the people exposed to these dangerous air pollution episodes are not living in places directly threatened by the flames themselves. People who are ‘safe’ from fires are not safe from the air pollution effects even if they live hundreds or even thousands of miles away,” he says.

(Continued on page 12)
How does climate change increase the incidence and ferocity of wildfires?
The current severe drought in the Southwest USA is the driest 22-year period in 1200 years. An increase in the number and severity of storms has compounded the likelihood of wildfires. The 2018 Camp Fire was the deadliest and most destructive fire in California history and sixth deadliest in the USA. Therefore, it is safe to say, wildfires are getting more dangerous. The release of CO$_2$ exacerbates global warming, which increases forest fires, creating one of many feedback loops that are bringing drastic climate change much more quickly than earlier forecasts.

How can we prevent wild fires?
Of course, we all know Smokey Bear’s mantra “Only You Can Prevent Wildfires.” NGC helps to spread that message since we started the Smokey Bear Poster Contest, with the U. S. Forest Service, in 1960. These are all good rules and our continued support for this program is important.

However, other than people, weather events or power line explosions cause many wildfires. The toll for these fires is immense: lives lost and disrupted plus the loss of property, not measurable in economic terms. Interviews with survivors do not recount the loss of electronics and appliances, but of family photos, papers and heirlooms. The air pollution from the incineration of homes and businesses is more toxic than wood smoke.

Most experts agree that governments need to devote more resources to fire management and prevention. Traditionally, resources focus on fire fighting. Local, county, state and federal governments are responsible for enactment and enforcement of regulations. As citizens, we have better influence with local authorities. We can engage our local planning commissions and urge them to concentrate on redeveloping urban centers rather than allowing suburban sprawl to continue gobbling up natural areas that will be vulnerable to forest fires. Building codes, in fire zones, should be updated and enforced to minimize loss of life and property, as well as the production of toxic fumes. Remember that wildfires are not just a threat in the western states. At the time of this writing, a wildfire plagues Florida.

Find out about fire and smoke conditions nationwide and in your location on this map updated daily: [https://fire.airnow.gov/#](https://fire.airnow.gov/#) Read more: Air Pollution and Wildfire, Climate Change and Wildfire

Victoria Bergesen is the NGC Environmental Concerns and Conservation Coordinator and Gardening with Nature Co-chair. She lives in South Carolina.
Keystone Native Plants

Bud Qualk

Gardeners are placing emphasis on utilizing native plants in their landscapes recognizing that these plants are core to wildlife gardening. We know that native plants and wildlife formed symbiotic relationships over millions of years, creating the most sustainable and productive wildlife habitat. Thanks to the research of famed entomologist, Dr. Doug Tallamy, we now know that 14% of native plants support 90% of butterfly and moth species. Noted horticulturalist Jarrod Fowler’s research showed that 15-60% of North American native bee species are pollen specialists that only eat from 40% of native plants. This knowledge is the key to helping to strengthen your landscape’s ecosystem.

Tallamy refers to these hyper-productive plants as keystone plants because they have a disproportionately large effect on the abundance and diversity of other species in an ecosystem. Keystones are critical to the food web and necessary for many wildlife species to complete their life cycle. Keystone plants are similar, in task, as the center stone in an ancient Roman arch - it supports the other stones making up the arch. Remove the keystone and the arch, or ecosystem, fails.

Without some keystone plants in your landscape, butterflies, moths, native bees and other insects will not thrive. American insects, to a huge extent, live only on American native plants. Without these insects, the diversity and abundance of many insect eating animals like birds, spiders, lizards and bats, that depend on caterpillars (insect larvae) for food, will suffer. Remember that 96% of terrestrial birds rely on insect food.

So, do I have to redo my entire landscape? Absolutely not! If you have native plants, you probably have some keystones. Adding a healthy dose of keystone plants to your landscape, however, helps to increase your biodiversity and strengthen your landscape ecosystem. Trees are best, yet shrubs, grasses, wildflowers and even weeds host caterpillars, which are integral food for birds. Not all trees are the same when it comes to hosting larvae. The best keystone species for bird abundance and diversity is the Oak. For example, the white oak (Quercus alba) and the black oak (Quercus velutina) host 436 caterpillar species in the Eastern Temperate Zone.

Lawns cover 45.6 million acres in the U.S. and they are growing by 500 square miles each year. That is an area eight times the size of New Jersey from which native animals have been evicted. Tallamy says if homeowners converted half of their yard to keystone native plant, it would collectively restore 20 million acres to a semblance of a functioning ecosystem. Twenty million acres is bigger than thirteen of the country’s largest national parks - combined.

Each ecoregion of the country has its own keystone native plant list. To see the one specific for your area, do a web search for keystone plants. Easier yet, go to the NGC Website and visit Gardening with Nature or send Victoria Bergesen or Bud Qualk an email for a more detailed resource list.

Bud Qualk is the NGC Edible Gardens Chair, Horticulture Committee Coordinator and Gardening with Nature Co-Chair. He hosts two TV shows in his home state of Kentucky.
Seeds on Ice

1.1 Million Seeds on Ice: The Svalbard Seed Vault

Karin Rindal

As a home gardener, you might only be marginally aware of the huge amount of scientific research and development efforts that go into maintaining our global food supply, particularly now, considering threats of climate change.

The Svalbard Seed Vault, located in northern Norway, is one increasingly important tool to address these issues. It houses the world’s largest and most diverse collection of seeds. Currently it accepts seeds from eighty-nine participants. This includes countries, some with their own national and regional duplicate seed banks, as well as from Indigenous peoples like the Cherokee Nation. Supported by international treaty, it is a giant “global safe deposit box” for almost 6,000 plant species’ seed stock.

Why a master seed vault?

As the world’s largest repository, its mission is to safeguard plant material against both natural disasters and wars. More than five hundred scientists, from around the world, participate in elements of this process of collection. Their goal is to save as many distinct crop varieties as possible within its content. Through their efforts, future generations will be able to distribute and regenerate seed varieties, if necessary. Both common and rare varieties are included in Svalbard, including 32 Irish potato varieties. Though deposits principally are feed grains, they also include bean, forage grasses and herbs. Developing countries were the origin locations of most of these food crops yet are also the most vulnerable to disasters, ranging from war to storage system failures, jeopardizing seed storage there. Floral, medicinal or ornamental varieties are not included.

Across the world there are 200,000 types of wheat, 30,000 types of corn and 47,000 types of sorghum. Yet, plant diversity is declining. In fact, the world now gets 40% of its calories from just corn, wheat and rice making us more vulnerable to climate change’s impact on food supplies and the seed bank’s necessity.

The widespread replacement with modern uniform varieties has resulted in significant genetic erosion. As an example, even though bananas are the developing world’s fourth most important crop, in terms of production value, nearly all of the bananas sold globally are just one variety - Cavendish, which is very susceptible to a deadly fungus called Panama Tropical Race 4. If not stopped, it could wipe out the $25 billion banana industry. Monoculture crops can create unforeseen problems.

On the other hand, just one type of wheat can have 100 crosses. Corn varieties are unique for fresh eating, grinding into flour, generating popcorn, or use in beer, corn syrup and for fuel.

(Continued on page 15)
Potatoes come in an array of colors. Some are drought tolerant or resistant to pests and disease, while others enhance nutrition.

Plant disease evolves, the climate changes, and so do consumer preferences. Plant breeders must incorporate the appropriate characteristics into varieties to meet these various needs, which are often conflicting. Sometimes they might need to rollback to earlier crosses to re-establish a desired characteristic. In these cases, the vault becomes a historical resource.

History and Partnerships
The most systematic seed collecting efforts began in the 1920s but were historically haphazard. The non-governmental organization Global Crop Diversity Trust and individual advocates started shepherding the idea of an international repository in the early 2000’s. The Trust assembled leading experts on major crops to help identify priority collections. In February 2008, the vault was established, owned by Norway and operated in partnership with the Norwegian Ministry of Agriculture and Food. The Global Crop Diversity Trust still plays an important role.

The International Centre for Agricultural Research in the Middle East was one of the first to take advantage of the vault, withdrawing seeds to replace those from its own collection damaged by war. Crop reconstruction efforts in Lebanon and Morocco allowed the Syrian originating deposit to be regenerated in 2021. The Philippines, Afghanistan, Iraq and Syria have all suffered losses in the past.

Vault Site
You might ask, “Why is it located in Norway?” Norway has a neutral status lending itself to international effort. Additionally, Norway was willing to host because Nordic countries have been saving seeds here since 1984.

A remote Svalbard location enhances security, yet it is still very accessible. Nearby mountains provide insulation and permafrost offers natural freezing. Radiation levels and humidity are low - key factors in maintaining seed viability. No other worldwide location offered these and other advantages, with no real drawbacks.

The vault building has an imposing entrance cut into the hillside landscape. In an area devoid of trees, it evokes feelings of mystery and magic. Changing with the time of day and season, special metal mirrors and 200 fiber optic cables embedded in the construction create a beacon that reflects the polar light during the day and emits a glowing light at night. It looks like stars twinkling or if seeds could emit light what they would look like sprouting. Quite striking, it received Time Magazine’s Best Inventions of 2008 award and the 2009 Norwegian Lighting Prize.

With only the concrete lobby entrance visible from the outside, the building itself was designed to be secure against climate change effects. Beyond the entrance a long tunnel reaches 125 meters into the mountain branching into three vault rooms with a current total capacity of four to five million different seed types. Airlock doors keep things consistently cold. The National Plant Germplasm System of the United States has about 140,000 of the total samples and owns the largest single national contribution.

To limit exposure to pathogens and temperature fluctuation, the seed bank is opened just a few times a year for deposits and never for public visits. Multiple YouTube videos give a glimpse of the structure outside and inside since we cannot visit it in person.

February 2022 saw the most recent opening. At that time 22,000 new samples, from ten countries, were added. A seed sample usually consists of about 500 seeds. Depositors are the only ones who have rights to retrieve their seeds. This year the vault welcomed two new depositors, Serbia and Latvia, to this international effort to ensure longevity of seeds, minimize risk, minimize cost and create something that allows itself to operate with scant intervention.

Take a virtual tour of the Svalbard Seed Vault.

Karin Rindal’s interest in gardening and botany was inspired by her paternal grandfather who gave her a quarter for every four leaf clover she found in his yard. She, also, learned from her maternal grandmother who used her extensive knowledge of plants to forage for mushrooms to feed her family during WWII. Karen lives in Virginia.
NGC CONVENTION 2022
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HAVE FUN!
The NGC Annual Convention is coming soon! Register today and enjoy these great mealtime speakers. Look for more information on workshops, tours and registration on the NGC Convention webpage.

**Luncheon (optional), Monday, May 16 - DANIELLE FLOOD**
shares her passion of ECHO (Educational Concerns for Hunger Organization) and its mission to find innovative and sustainable ways for farmers, around the world, to improve their harvests. Come see the Global Farm!

**Luncheon, Wednesday, May 18 - GABRIELLE BURNS**
is an Occupational Therapist and Early Intervention Manager with CORAHealth. She tells us “How and Why We Should Encourage Children to Play Outdoors.” She is enthusiastic about the power of playing outside and ensuring safe spaces for children of all abilities.

**Banquet, Wednesday, May 18 - BRUCE CRAWFORD**
is a true plant lover and one of the 2021 NGC Award of Excellence winners. He introduces “Fun With Plants All Year Long.” Bruce is the Manager of Horticulture for the Morris County, New Jersey, Parks Commission. He taught Landscape Architecture at Rutgers University and was the director of the Rutgers Gardens.
Luncheon, Thursday, May 19 - DR. JARET DANIELS, professor of Entomology at the University of Florida, is the Curator of the Florida Museum of Natural History’s McGuire Center for Lepidoptera and Biodiversity where he specializes in ecology and conservation of at-risk butterflies and other native insect pollinators. He tells us how to “Build More Effective and Sustainable Landscapes for Butterflies and Other Pollinators.”

Banquet, Thursday, May 19 - KEBBIE HOLLINGSWORTH and her assistant, Robert “BOB” TUCKER set the stage for the Design Banquet with “Up and at ‘em! Mother Nature’s Calling.” A must-see presentation, these two collaborators will create floral tributes to our NGC President’s theme of “Playing Outdoors.” There is definitely going to be a playground of possibilities in this program! (Note the change of the assistant designer from the original program.)

National Garden Clubs Thanks Our 2022 Convention Corporate Sponsors and Donors

Look for acknowledgment of individual, club, district and region donations to the 2022 Convention Giving Tree in the summer issue of The National Gardener. Donate today and thank you for your support.
**PLANT AMERICA and Play Outdoors**

by entering your creation in the Petite Design Specialty Show held in conjunction with the NGC National Convention in Orlando. The flower show team is thrilled to honor President Mary Warshauer’s theme for the show.

Each of the Design and Botanical Arts sections include the names of the eight NGC Regions. Class titles represent areas or activities occurring within the Regions such as the Great Lakes, Mardi Gras, Grand Canyon, Mount Rushmore and The Great White Way. Many classes specify design types including construction, duo, multi-rhythmic and cascade; while others simply designate a creative design. Petite Exhibition Tables may challenge even the most experienced designers. Collage, hanging design and exploration fill out Botanical Arts - Design. Arts and crafts specialists can join the fun with a decorated hat, decorated Barbie® or dried pressed flower picture in Botanical Arts - Artistic Crafts.

Click [PLANT AMERICA: Play Outdoors](#) to download the complete schedule and entry information. Entry is easy – just contact the Consultant listed with each section of the Design and Botanical Arts Divisions in the schedule. Remember, if you are not attending (and you should), someone else may place, but not create, your flower show entry.

David Robson, of Illinois, is an NGC FSS Instructor, Co-Chair of the 2022 Convention Flower Show and PA Chair.

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**Books you can’t (and won’t want) to put down**

“Fun”, “Thoughtful”, “Addictive”, “Kept me up way past my bedtime”, “Intelligent”, “Horticultural”, and “Twisty-windy”.

These are the way readers describe Neal Sanders’ 15 mysteries. They all feature strong, independent women – some of whom solve crimes, and others who commit them. Many of his books use garden club settings and ‘women of a certain age’ but don’t mistake these for ‘cozies’: his plots involve everything from romance scams to ‘protect your assets’ schemes.

**Order his books** in print and Kindle formats on Amazon. Go to [www.TheHardingtonPress.com](http://www.TheHardingtonPress.com) to explore his titles, read first chapters, or purchase directly from the author at [www.the-hardington-press.square.site](http://www.the-hardington-press.square.site).

Neal is also one of the most entertaining speakers you’ll ever hear. ‘Gardening Is Murder’ is equal parts humor, psychology, and gardening wisdom; a husband’s point of view of what goes on in the garden. He has been a featured speaker at NGC events from Maine to Kentucky. Contact him at Neal02052@Gmail.com.
Irish Soda Bread
Pat Greathead

Ingredients:
2 1/2 C whole wheat flour*
1 1/2 C bread flour*
1/4 C sugar
1 t baking soda
1 t baking powder
1 t Himalayan pink salt
4 T (1/2 stick) cold unsalted butter cut in small pieces
1 C currants or raisins
2 T caraway seeds (optional)
1 1/2 C buttermilk
1 large egg

Preheat oven to 400°F. In a medium-sized mixing bowl, whisk together the dry ingredients (flours*, sugar, soda, powder and salt). With your fingers or mixer, cut the butter into the dry ingredients until crumbly. Stir in currants or raisins and caraway seeds.

In a large measuring cup or similar, whisk the buttermilk and egg. Pour this into the dry ingredients. Combine. If the dough is too crumbly to form a ball, add a bit more buttermilk.

Knead the dough a couple of times; shape into a ball, flattening slightly. Place in a lightly greased 8” to 9” round baking pan. Cut an X 1/2” deep from edge to edge using a sharp knife.

Bake 45 to 55 minutes until golden brown and a cake tester inserted into the center comes out clean. Remove from oven and brush with melted butter if desired.

Approximately 12 servings.
*4 cups of all-purpose flour can be substituted for the wheat and bread flours.

Pat Greathead loves to cook and grow vegetables. She shares her delicious recipes at many garden club events. Pat’s home is in Wisconsin. 
Click here for a printable recipe.
News to Use
Jan Warshauer

Reminders
The next Flower Show Handbook Exam date is Thursday, April 28, 2022. A Student Judge who wishes to take a course out of state must contact their State Flower Show School Chair six weeks in advance of the course. The State Flower Show School Chair must send Flower Show School Form 18 to the host state indicating the eligibility of the student to take the course for credit. Reference the Handbook for Flower Shows on page 114.

To obtain Horticulture Exhibiting Credit for judges who bring specimens to a school or symposium, refer to the timeline for “must be in the exhibitor’s possession” as stated in the Handbook for Flower Shows page 55.

Please review the requirements for all judges and note the first one, “Be an active NGC garden club member. An Active Member is defined as a dues paying member who regularly participates in the club’s activities.” See the requirements for all Judges in the Handbook for Flower Shows, page 113.

Q&A with Jan
Is the digital version of the Handbook for Flower Shows available?
The Handbook for Flower Shows, January 2022 revised digital version is now available, free of charge, on the NGC website under Publications or on the Flower Show School Resources page.

I am a State Flower Show Symposium Chair. Where can I find information to guide me in planning a symposium?
The Manuals for Flower Show Symposium, Flower Show School and Flower Show Judges Credentials have been updated and are available on the NGC website on Flower Show School Resources page under Flower Show Schools Information.

As a Student Judge I know I am required to write a Flower Show Schedule, how do I get that assignment?
Immediately after a Student Judge has successfully completed all four Flower Show School courses, the State Flower Show School Chair contacts the NGC Schedule Corrections Chair for that region and requests the Schedule Writing directive for each student. All communications go through the State Flower Show School Chair.

Spring into planning your summer shows and remember a bright spot in our lives are the gardens we tend.

Jan Warshauer is the NGC Flower Show School Committee Chair. She lives in New Jersey. Click for Jan’s article as a pdf.
Management of Space in Low Profile Design
Pilar Medellin de Miñarro

The concerns regarding the management of space in a Low-Profile Design, is related to the size of the location provided for exhibiting the design and also by the limitations of the height or top dimensional characteristics which are required.

Space is not tangible; therefore, it is understood as a phenomenon of our own perception. It is also closely linked to the three dimensions, which are necessary to guide the observer's perception. In plastic organization, space is considered as an intrinsic condition that determines and expresses depth, which we interpret with our own internal understanding and associations.

Space can be classified as positive or activated. We can also interpret space by the form, silhouette or a shape occupied by an object. Space allows us, without interruption, to visually draw or define its perimeters and this is what creates a flow through the design, since all activation is perceived within these limits.

Negative or inactivated space, this is all the space that surrounds a form or object. Negative space is that active part of the interior or exterior of the design according to the organization and the placement of the components within the design.

Closed or open space, closed space is more visually stable since our eye travels within the defined limits of a form. Open space is very dynamic and free because it has no boundaries, and it is defined by plastic organization or the placement of the components. The more aware you are of space in your designs the more active it will become.

Can you evaluate the space in these images?

La preocupación por el espacio en Diseño Bajo Relieve remite especialmente a limitaciones que presenta el entorno donde se ubicará el diseño y las características en cuanto a dimensiones, y su manejo en este tipo de diseño por la limitación de la dimensión hacia arriba.

El espacio es entendido como un fenómeno de la percepción, porque no es tangible. Está vinculado con las tres dimensiones como condición necesaria para la misma percepción del observador. El espacio como condición intrínseca en la organización plástica, es abordado desde las relaciones internas y determinan y expresan profundidad.

El espacio puede ser clasificado como positivo o activado. Es el espacio ocupado por un objeto o una forma donde podemos dibujar su perímetro sin interrupción; toda la activación está dentro de este límite.

Espacio negativo o desactivado, es todo aquel espacio alrededor de las formas que puede ser activado por la organización de los componentes y forma parte del diseño.

Espacio cerrado o abierto, espacio cerrado: es más estable visualmente ya que nuestro ojo lo recorre dentro de un límite definido. Espacio abierto: es un espacio dinámico, libre, que está marcado por la organización plástica de los componentes, la que lo define.

Puedes evaluarlo en las imágenes?

Pilar Medellin de Miñarro, is a TNG international feature writer and NGC Instructor. She lives in Mexico. Click to view more images of the Pilar’s Low Profile Designs.

Pilar Medellín de Miñarro, es escritora internacional de artículos especiales para TNG e Instructora NGC. Ella vive en México. Favor de hacer clic para ver más imágenes de Diseño Bajo Relieve.
There is exciting news in our Gardening Schools sponsored by NGC. Course 2 is on April 5 & 6, 2022 via Zoom, watch for Course 3 later this year. Course 2 is just in time for getting into our gardens with our newly learned or refreshed knowledge and to play outside. With the pandemic, wearing masks and not having our normal routines, getting outside benefits our mental health.

What if you decided to plant a small garden in a raised bed or container? You would know where your vegetables came from. They could be chemical free. You can instruct a friend, neighbor, child or grandchild. It creates excitement when they get involved and are part of something that grows.

During National Garden Month of April, think of the history of gardens. The Victory Gardens brought communities together. They were a matter of survival. Our great-grandparents, grandparents and parents survived the Depression with their own “food-supply chain” in their back yard. With the current world issues, some store shelves are empty. We, as gardeners, can step up to the plate, do our part and relieve a little pressure from the system. Everyone, Plant One!

Charles McLendon is the NGC Gardening School Chair. He gardens in North Carolina.

The 2023 Vision of Beauty Calendar is in print production and is available for sale later this spring. Thanks to the Vision of Beauty Calendar committee members for their support and dedication in helping to select entries for the calendar, as well as their thoughtful input throughout the production process. The committee works as a whole to select photographs and organize the calendar. Members pride themselves on being detail-oriented in order to produce a high quality product. They send a sincere thank you to all the designers submitting entries. The number of featured designs is limited to the number of pages in the calendar; so unfortunately, they cannot publish all the entries received.

The committee is already accepting entries for the 2024 Vision of Beauty Calendar. The calendar highlights numerous traditional, creative and botanical arts designs, plus small pocket gardens. Committee members welcome all members of clubs affiliated with National Garden Clubs, Inc. to submit entries.

Please see the Visions of Beauty Entry Form for complete details. Fill out the form and carefully read the updated entry requirements. Sometimes, the committee rejects wonderful floral designs just because they do not meet all the guidelines. All entries must use appropriate backgrounds and staging. Thank you so much for your participation because without your beautiful entries, the lovely work of art that is the Vision of Beauty Calendar would not exist.

Florence Leyssène is the NGC Vision of Beauty Calendar Chair. She lives in New Jersey.

The National Gardener/Spring 2022
Frederick Law Olmsted is considered the father of landscape architecture. He and his work are therefore, studied in NGC’s Landscape Design School (LDS), highlighted in Course 2. There are references to Olmsted in Chapters 18, 25, 26, 32 and 36 of *Stewards of the Land*. (LDS recommends, but does not require, reading the book, *Stewards of the Land*.)

This year marks the 200th anniversary of Olmsted’s birth on April 26, 1822. Accordingly, there are yearlong celebrations of his life and legacy. National Garden Clubs launched its celebration with a webinar by Kirk Brown on February 8, *When Can We Celebrate Olmsted’s Legacy?* Brown has served as an instructor for our Landscape Design Schools and has made many presentations to garden clubs and at NGC meetings. His informative and entertaining presentation is available for viewing until May 11 on the NGC YouTube channel. The celebration of Olmsted’s life is part of NGC’s Proclamation to celebrate April 2022 as PLANT AMERICA Month, also recognizing the 150th anniversary of Arbor Day and honoring Earth Day.

Olmsted was a journalist and a traveler. He worked with the U.S. Sanitary Commission, a precursor to the Red Cross, during the Civil War. He was an early leader in the conservation movement, which laid an ethical framework for the government to preserve public lands to protect their value to posterity. He was a tireless proponent of policies that would create a system of national parks. He is generally credited with saving the Niagara and Yosemite Reserves from exploitation. Olmsted was instrumental in creating the foundation for the National Park Service.

Working first with Andrew Jackson Downing and later with Calvert Vaux, American landscape design came into being. Downing and Olmsted’s Greensward Plan became the design for New York’s Central Park. Due to Downing’s early death, Olmsted and Calvert Vaux executed this plan. The design of Central Park incorporates Olmsted’s social consciousness and commitment to egalitarian ideals. Influenced by Downing, and his own observations regarding social class in England, China and the American South, Olmsted believed that the common green space must always be equally accessible to all citizens and defended against private encroachment. This principle is now fundamental to the idea of a public park. Beginning with the design for Central Park, parks came with the perceived value of preserving or creating natural or naturalistic outdoor spaces for the enjoyment and well-being of all people. There was a presumption that there was an uplifting effect of rural scenery. Parks were soon recognized as therapeutic escapes from congested cities. Cities, of all

(Continued on page 25)
sizes, accepted that parks were urban necessities for mental and physical well-being.

Olmsted’s many projects span the nation. Not only did he create many city parks (e.g. Prospect Park in Brooklyn, Belle Isle Park in Detroit and Jackson Park in Chicago), he soon developed the concept of public parkland as interconnected systems of parks (e.g. the public park systems for Milwaukee and Buffalo plus the Emerald Necklace in Boston). Other projects include the design of numerous school and college campuses (Stanford University), the Biltmore Estate grounds in North Carolina, the World’s Columbian Exposition (aka, 1893 Chicago World’s Fair) and the United States Capitol Grounds.

Brown tells us that Olmsted’s basics are grass, water and woods. Influenced by English landscapes and gardening, Olmsted designed primarily in the pastoral and picturesque styles. The pastoral style features vast expanses of green with small lakes, trees and groves that produce a soothing, restorative effect on the viewer. The picturesque style covers rocky, broken terrain with teeming shrubs and creepers, to express nature's richness. The picturesque style plays with light and shade to lend the landscape a sense of mystery.

Olmsted was the one man who dominated the first forty years of landscape architecture. The extensive work of his sons, Frederick, Jr. and John Charles, perpetuated Olmsted, Sr.’s association with landscape architecture for decades. In the early 20th century, the new profession of “city planner” evolved from landscape architecture.

In 1883, Olmsted established his home in Brookline, Massachusetts and established Fairisted, the world’s first full-scale professional office of landscape design. His sons and successors continued his ideals and philosophy until 1980 when the National Park Service acquired the property. It is now a National Historic Site, open to the public. His sons were founding members of the American Society of Landscape Architects (ASLA) in 1899. ASLA promotes the practice of landscape architecture and advances the profession through advocacy, education, communication and fellowship.

There are many books and online resources by and about Frederick Law Olmsted. Olmsted 200 is an extensive site devoted to celebrating the 200th anniversary of this remarkable man and “Celebrating Olmsted Parks for All People.” What better time, than this year, to learn more about him? Consider garden club programs about Olmsted and his work or attend Landscape Design School. LDS coordinators might include special supplemental subjects focused on him or his specific projects. Kirk Brown challenges us to pick an Olmsted city, park or experience; go see it and thank the man who brought it to us.

Greg Pokorski is the NGC Landscape Design Schools Chair. He is a Master Landscape Design, Environmental and Gardening Consultant and resides in California. Click for Landscape Design School News as a pdf.
Environmental School = WATER
Millie Legenhausen

Last fall, the Federated Garden Clubs of Connecticut, Inc., presented NGC Environmental School, Course 4, delivered virtually to a national audience via Zoom. Attendees participated from CT, PA, DE, NY, NC, VA, FL, KY, MD, MA, CA and WI. The highlighted topic, Water and Related Issues, is of high relevance today. Top scientists, industry leaders and educators guided students through many water related presentations.

With the demand for water outstripping supply, classes touched upon how to maintain adequate water supplies for all. Agriculture, manufacturing and humans compete for a resource that we have taken for granted. With a warmer climate, weather patterns are changing thus affecting rain patterns. The emphasis is to be good stewards of the earth to preserve the quality of our water. Water on earth is a closed loop. It evaporates and falls back to earth. No new water is being created. We must protect what water we have. Of all the water on our planet, only .003% is potable water or fit for human consumption.

The two-day course included a section on sustainability. The presenter outlined how to balance water supply and demand with the least impact on the environment. The theme that all things in nature are connected permeated throughout the classes. Thoughtfully designed infrastructure, manufacturing products with recycling in mind and planning communities to mirror nature all protect our water resources. They have the added benefit of improving human well-being.

During the virtual field trip, students visited three sites in Connecticut. At Dinosaur State Park, students reviewed how glaciers formed our soils. At a State Fish Hatchery, students learned how water quality affects fish. While at Hammonasett State Park, students learned about saltwater species and their healthy ecosystem needs. At each virtual location, attendees recognized the importance of water to all life and its significant contribution to our economy and recreation. Most importantly, emphasis was on stewardship involving everyone: educators, industrialists, environmentalists and citizens alike. Removing invasive species and reducing the amount of nitrogen we put on our lawns goes a long way to preserving our lakes and rivers. Our collective efforts can have a significant impact.

There was very positive feedback from the attendees, who appreciated the quality of the teaching and topics. National Garden Club’s schools are open to garden club members and anyone with an interest in learning about the Environment, Gardening, Landscape Design or Flower Shows and Judging. The mission of Environmental Schools is “to teach environmental literacy; to cherish, protect and conserve the living earth.” Look for more information on the Environmental Schools webpage.

Millie Legenhausen is the FGCC Environmental School Publicity and Hospitality Chair and lives in Connecticut.
National Garden Clubs, Inc.
NATIONAL GARDEN WEEK
PROCLAMATION

Whereas, Gardeners have a passion for nurturing the beauty and resources of the earth through the planting of seeds, the care of all plants and the riches of their efforts; and

Whereas, Gardeners seek to add beauty, splendor, fragrance and nutrition to our lives through the growing of herbs, vegetables, foliage and flowers; and

Whereas, Gardeners work to preserve our country’s traditional spirit of independence and initiative through innovation and hard work; and

Whereas, Gardeners advocate the importance of all creatures, large and small, that share our world and their roles in a balanced and productive ecology; and

Whereas, Gardening furnishes a challenging and productive activity for our citizens, for those just learning as well as those having years of experience; and

Whereas, Gardening promotes a healthy lifestyle that lasts a lifetime, helps reduce stress from other areas of our life, teaches that rewards can come from diligent efforts; and

Whereas, Gardening enables members of Garden Clubs across the nation and the world to make a world of difference in the communities where they reside and work;

Now, Therefore Be It Resolved that in an effort to acknowledge the importance of Gardening and the numerous contributions of Gardeners, National Garden Clubs, Inc. designates the week of June 5-11 as National Garden Week.

Mary Warshauer,
2021-2023 President, NGC, Inc.
An urban orchard is what one refers to as a small vegetable garden in an urban location within any city of today. In Spanish, the word *huerto* comes from the Latin “*Hortus Conclusus*”, which means enclosed garden. This small article is about one family’s orchard designed for the harvesting of those special things that one misses and wishes to eat.

At the beginning of the COVID pandemic in 2020 we suddenly found ourselves deprived of what we were used to having in this modern society of ours, which includes going to the store to buy anything we need or want. Due to the risk of infection and restrictions imposed upon us, we suddenly realized there was a consumer rush placed on the general public to buy what they were offering and often in excess to stock up. This was financially convenient to the supermarkets who had little interest in the public’s concern. In response, we decided to create our own orchard and place it on the roof of our house.

We investigated and diligently pursued information because this was literally going to be on the roof of our home, which meant it had to be sunny with good ventilation in order to maintain our ideal orchard fit for our specific family requirements.

The protected space, with enough sunlight, to locate our urban orchard and elevated growing beds turned out to be where we used to dry our laundry. We found, online, a manufacturer of water troughs for cattle use. These half barrels were made of plastic with a steel frame that fit perfectly and ensured a clean and lasting workspace. All we had to do was modify the height of the steel legs and raise them to waist height for more comfort, perforate enough holes to drain excessive water and to maintain the right amount of humidity for the plants. With everything in its place, we added a simple but effective watering system to care for a small family orchard with proper drainage and no waste to keep a clean and dry environment.

Our next step, we built a steel structure to hold the plastic roofing and the PVC pipes for watering. This was encased in the pre-existing lateral walls already on the roof. The transparent roof would allow sunlight but prevent rain and harsh sun rays during Guatemala’s hot summers. Because we knew that some of the plants we wanted, like tomatoes, do not respond well to heavy rains, we installed a thin perforated hose to produce a cool steam and also move the accumulation of heat within the orchard. We added efficient LED lights that offered a pleasant ambiance, the added sound and water, the clear roofing and perfect drainage, all worked ideally.

Our research on the right cultivation medium was on its way. We purchased prepared soil with pumice stone and earthworm humus. To maintain the ideal level of humidity and to combat the intense sun rays we purchased blocks of coconut fiber, which we shredded and added to the soil to create the best mixture. We filled fiberglass bags with pumice stone to cover the drainage holes at the bottom of the cultivation beds so as to prevent any clogging and allow the desired flow of moisture before placing the seeds.

Our selection of seeds for tomatoes, spinach, chard, different varieties of peppers, radish, carrots, edible flowers and arugula was ready. To think that the later was a wild shrub in Ancient Rome and now is considered a delicacy.

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Live and learn, as we progressed and after the beginners’ mistakes, such as not placing name tags to recognize the sprouting seedlings, it all grew and in little time we had crops. We also planted strawberries in hanging baskets to prevent the fruit from having direct contact with the soil. Each one of the plants requires different times to grow and we enjoyed many surprises along the way. Later we tried new seeds and started germinating seeds like lettuce, cabbage, zucchini and pumpkin, among others.

We had many surprises. The cats who frequented the ravine next to our house loved to sleep in the orchard but made a mess of it every time. Then there was the great-tailed grackle who ate the first batch of seeds and the butterflies that laid eggs, which became worms, who ate all the zucchini in one day! Moral of the story... a constant watch is fundamental.

The proper fumigation became an important issue, since our plants were grown for human consumption. It had to be organic so we decided to alternate the crops and take the preventive measures. This lead us to chose worm castings as a fertilizer and as a nutrient for the orchard.

Harvest time for every fruit or vegetable was a time for joy and celebration. We learned how hard it is to obtain a perfect fruit or vegetable and appreciated much more what we were able to buy in stores or supermarkets. In addition, knowing what we grew and took to the table was free of chemicals enhanced the appreciation of the food produced by our own hands and loving dedication.

There is no doubt that slow food is based on products cultivated with care. The best seed is chosen to be planted in a well prepared medium with proper nutrients, watered with clean water in a friendly non-polluted environment, seeking conservation with an organic overall vision.

Our urban orchard is about to reach its second year since the original idea came to mind and we find ourselves renewing the soil with nutrients, ready for the next planting of seeds and subsequent harvest. With several lessons already learned, we are certain it will be a nice experience to repeat.

Blanca Niño Norton is an architect and is our The National Gardener International Affiliates Conservation Writer. She lives in Guatemala. Click to view more images of Nino’s Rooftop Orchard.
Huerto Urbano - De la idea a la cosecha

Blanca Niño Norton

Huerto urbano, en inglés “urban orchard”, se refiere específicamente a un huerto pequeño, en un sitio urbano, en una ciudad de la actualidad. La palabra huerto en español viene del latín "Hortus Conclusus" que significa huerto cerrado, por lo que este pequeño artículo trata sobre un pequeño huerto cerrado, en la Ciudad de Guatemala; un huerto unifamiliar para producir algunas de esas cosas que uno desea comer y que echa de menos.

Inesperadamente al inicio de la pandemia de COVID en 2020 nos encontramos sin acceso a lo que está acostumbrada esta sociedad moderna, que incluye ir al supermercado y comprar cualquier cosa que necesitamos. Debido a las restricciones y el riesgo al contagio verificamos que el consumismo y la prisa con que la gente compra en exceso nos ha acostumbrado a adquirir lo que los supermercados ofrecen a su voluntad, sin nuestra intervención. Como respuesta a esto decidimos hacer un huerto en el techo de nuestra casa.

Invesigamos y buscamos información, ya que hacerlo en la parte superior de la casa implicaba que tenía que adaptarse, funcionar y verse bien. Roberto, mi esposo y yo somos arquitectos y pensamos que debía ser un espacio agradable y funcional.

Evalúamos donde ponerlo ya que se necesitaba: buen sol, ventilación, entre otras necesidades para poder mantener una plantación adecuada a nuestros requerimientos familiares.

Decidimos utilizar un espacio protegido y soleado empleado para secar la ropa, y allí ubicar el huerto urbano y las camas de cultivo elevadas. Encontramos un fabricante en el interior del país que ofrecía bebederos para ganado hechos de toneles plásticos y estructura de hierro que se adaptan perfectamente y nos aseguraría un espacio limpio y duradero. Subimos la altura de las patas de la estructura metálica para que fuera más cómodo trabajar en ellas y adaptamos el diseño, perforamos suficientes agujeros en la base de los toneles para que el agua de riego no se estancara y mantuviera la humedad necesaria para los plantines.

Ya colocado todo físicamente en su lugar diseñamos un adecuado sistema de riego simple y eficiente para un huerto unifamiliar pequeño, sin desperdicio de agua y con el adecuado drenaje para mantener la zona seca y limpia.

El siguiente paso fue construir una estructura simple con hierro, lámina plástica y bajadas de lluvia de PVC para obtener un techo transparente que permita el paso de luz solar y proteja a los cultivos de lluvia fuerte y directa y de excesiva radiación durante el verano en Guatemala. Para ese momento sabíamos que algunas de las plantas que queríamos sembrar, como los tomates, no responden bien a lluvias fuertes. Conseguimos unas mangueras delgadas perforadas que al encender el sistema producen vapor y en la época de calor quitaran el sofoco que habría en el huerto. Pusimos unas líneas de focos de iluminación eficiente para ambientar mejor el lugar y hacerlo más agradable. Así que ya todo instalado comprobamos que las luces, el agua y el drenaje funcionaran a la perfección.

Para entonces la investigación sobre el medio apropiado de siembra ya estaba adelantada. Se compró tierra preparada con arena de piedra pómez, con humus de lombriz aplicado, además de un poco de broza. Por lo intenso del sol, era importante mantener el nivel de humedad adecuado y decidimos comprar bloques de fibra de coco para deshacerlos y mezclarlos con la tierra comprada.

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Ya mezclado el medio de cultivo había que pensar como poner la base de piedra pómez para asegurar que no se taparan los orificios para drenaje que les habíamos hecho a los toneles y que ahora constituían las camas de cultivo.

Decidimos hacer bolsas de fibra de vidrio, llenarlas de piedra pómez y colocarlas en el medio de cultivo con lo que nos preparamos para iniciar la siembra.

Preparamos entonces las semillas adquiridas previamente, decidimos iniciar con tomate, espinaca, acelga, chiles de distintas variedades, rábanos, zanahorias, flores comestibles y semillas de arúgula que era un monte que crecía en las afueras de la Roma Antigua, pero que hoy es un plato deseado en la mesa.

Fuimos aprendiendo poco a poco, luego de los errores iniciales, como el no rotular los campos cultivados e ignorar de qué planta se trata al salir los primeros brotes. Todo fue creciendo y en poco tiempo teníamos nuevas cosas floreciendo. Sembramos fresas en canastas colgantes para que sus frutos no se desarrollen directamente sobre la tierra. Cada cosa sembrada tiene distintos tiempos para su desarrollo y fuimos disfrutando de cada sorpresa. Al correr el tiempo probamos otras semillas y luego usamos plantines que se desarrollaron a la perfección. Este fue el caso de lechugas, repollos, zucchini y calabazas, entre otros.

Siempre hubo sorpresas. El gato del barranco curioseaba de noche en el techo y llegaba a dormir al huerto, dejando todo revuelto. Había un zanate que arrasó con la primera tanda de semillas, las mariposas también dejaron huevos que se convirtieron en gusanos que se comieron los zucchini en un solo día.

Así que la observación constante resulta fundamental.

La adecuada fumigación fue otro tema muy importante al ser cultivado para consumo. Sin duda tenía que ser orgánico y decidimos por alternancia de cultivos y medios preventivos. Por similares razones optamos por purín de lombriz como medio de fertilización y nutrición del medio de cultivo.

El momento de la cosecha y recolección de cada nueva fruta o verdura era toda una celebración. Aprendimos a valorar lo difícil que es tener una fruta o verdura perfecta y apreciar más lo que uno compra en tiendas y supermercados. Adicionalmente, al asegurarse que lo que uno come está libre de químicos hace apreciar la comida con productos cultivados a mano y con conciencia.

La comida lenta (Slow Food) sin duda se basa en productos cultivados con cariño, donde se escoge la mejor semilla, se siembra en un medio preparado con los nutrientes adecuados, se riega con agua limpia, se busca la conservación y todo se realiza con una visión orgánica que funciona en favor del entorno y el medio ambiente.

El huerto ya casi cumple dos años desde la idea original y estamos ahora renovando la tierra con nutrientes y listos para volver a sembrar. Ya con varias lecciones aprendidas será una linda experiencia para repetir.

Blanca Niño Norton es arquitecta y es nuestra escritora de conservación de The National Gardener International Affiliates. Ella vive en Guatemala. **Haga clic para ver más imágenes de Nino’s Rooftop Orchard.**
What is all the fuss over growing onions? You buy some sets, bury them in the ground and later in the year you pull them out and eat them. What the heck?

Yes that will work, but, not very well. Onions are very forgiving and are hard to kill. If you are happy with the quality of your crop then stop here. However, if you would like to double the size of your onions, increase your numbers and have them store much longer, this article might help.

1. Assess your soil. Onions like well-drained, slightly acidic (5.3 -5.8 pH) fertile soil and full sun - 6+ hours. The pH measures hydrogen and without a good pH range your plants cannot absorb nutrients in the soil. If you are really serious, take a soil sample to your closest Extension Office. For about $8, free in some states, you will know your soil pH. The report includes how much lime, sulfur or fertilizer you need, or do not need, to add to have the optimum garden soil. Other vegetables like a more neutral soil pH of 6.2 to 7, so be careful about making your garden more acidic to just make your onions happy. Add a little sand and compost, pending your soil structure, and start planting.

2. Next, do you want to grow them from seeds, sets or plants? Obviously, seeds take much longer. Plant seeds a couple of months before sets and plants. Plants have a much larger range of varieties and take a shorter time to be established.

3. Speaking of varieties, just a few years ago, here in Kentucky, the only varieties of sets available were red, white and yellow. Now there are many varieties and even a choice of short, medium and long day varieties. Wow! The same with plants, the only choices were the short day Granex onion because of the marketing of the sweet Vidalia type of onions from Georgia, Texas, Washington and Hawaii. Now many nurseries and catalog carry different varieties and even short day, medium day and long day types.

4. What is this short, medium and long day stuff? Short day onions are to be grown in the south during the winter when the days are short. Medium day onions grow in the middle of the country in the spring when the days are a little longer. Long day onions grow in the north during the even longer summer days. The length of the day determines when the onion tops stop growing and the onion bulb starts growing. This determines how long the tops of the onions have to multiply. The number of blades the onion has determines how big the onion becomes. Each blade represents a layer in the onion. More blades create more layers. If you have five or six blades, you will have a small onion. Eight or nine blades equal a medium sized onion. With twelve or thirteen blades, you will have a large onion.

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The key to large onions is growing as many blades as possible before the onion starts bulbing and the tops stop growing. For example, if you grow a short day onion in the north there will not be very many days before the bulb starts growing, thus the size of the onion is very small.

5. When you plant your onions, plant them very shallow. The onion bulb must grow on top of the soil with only the roots in the earth. This gives the bulb less restriction to grow and expand. Once it starts bulbing, pull the soil away from the bulb.

6. After planting, apply 100% nitrogen fertilizer once a week to encourage more blades to develop. Applying right before a shower is a good routine. Once the onion starts bulbing, discontinue the fertilizer because the blades are done growing.

7. Once the onions reach full size, the blades start falling over and breaking at the neck. After a majority have done this, take the back of a rake or hoe and break the rest of them over. This encourages the necks to dry and heal for the best possible storage life. Let the onion plants dry in the garden before harvest. After they are dry, pull them and move them to a dry, shady place for a week or two. Do not leave them in the sun to dry and do not let them get wet. Under a tree is good, if heavy dew is not predicted. In a shed or garage is best, if rain is in the forecast. After completely dried, you can tie them up and store them overhead or in shallow baskets or pans in a cool dry location. Check frequently for rotten ones that will destroy the others. First, use the onions that went to seed and the ones that the neck did not seal well. Finally, enjoy them on your burgers, tacos and salads.

Bud Qualk is the NGC Horticulture Committee Coordinator, Edible Gardens Chair and Gardening with Nature Co-Chair. He lives in Kentucky where he hosts and produces the Master Gardening TV and YouTube shows.
The cultivation of aromatic plants in our gardens, terraces and in pots is a very gratifying task, especially when we do it organically. Having them fresh at our fingertips for when we need them or keeping them dry for times when they do not prosper, gives us an unparalleled pleasure.

They are easy to grow. The colors, shapes, and fragrances that emanate from them, stimulate our senses, adding more value to their presence in our homes. Harvesting these plants to prepare an infusion or to use them in the kitchen, knowing they are free of pesticides or chemical fertilizers, gives us a lot of peace of mind when using them.

They can be picked all year round. However, there are some that have special qualities during their peak season. It is best to harvest them on dry days, during the morning, using a knife or sharp scissors. If we are going to use them fresh, cut only as needed. If we are going to dry them, cut sprigs and tie them together in a bouquet to hang inverted in a dry and airy place. There are other methods of preservation such as freezing them in freezer bags or chopping them up and placing them in ice cube trays for future use.

According to Hippocrates, aromatics were considered as "Food that Heals". He wrote: "Let your food be your medicine and your medicine be your food." Infusions are one of the simplest ways to benefit from the medicinal properties of herbs. Aromatics can be used fresh - 2 teaspoons in a cup of boiling water or dried - 1 teaspoon in 1 cup of boiling water. This is because when dried their chemical components are concentrated. The aromatic and medicinal properties are obtained by volatile oils, amino acids, glycosides, vitamins, minerals, antioxidants and more.

The culinary use for these marvelous plants is to give flavor and aroma to our food. They can be added during cooking time or at the end, without losing their medicinal properties. In the link of this article you will find a review of the favorite and most utilized aromatic plants.

Ana Calegari, is a TNG international feature writer. Click to view Ana's Favorite and Most Utilized Aromatic Plants.
There is a connection between people and plants. Our mood can improve when surrounded by plants. Research tells us that plants can make us healthier and happier. Studies even show that a walk in a forest can lower blood pressure. Plants have the special ability to turn a house into a home. They remove toxins from indoor air. Lavender acts as a natural sedative to remove stress and improve sleep. Roses may provide anti-depressant and anti-anxiety effects.

However, it is not just about “having” plants. When you care for them and see they are doing well, you receive joy. What small thing can a gardener do, in one’s everyday life, to aid the cause of global warming? Gardening can be a small answer to this much larger issue.

How can we keep our indoor plants healthy? Watering kills plants more than anything else. It can be either under watering or over watering. (Water when the top one inch of the plant is dry.) Water plants from the top to prevent a buildup of minerals. Avoid using water that has passed through a water softener to keep plants from receiving too much sodium. Never use ice-cold water, it may shock the roots. Over watering, over fertilizing, sun scorch or lack of humidity can cause browning of leaves. Assess your plant practices and indoor environment to determine the cause of brown leaves. Moving plants to a new environment may, also, cause dropped leaves.

Fertilize only once a month and never fertilize a new plant! Establish plants in their new environment prior to starting fertilization. If roots poke out of the drainage hole or push the plant upward and out of the pot, the plant has outgrown its container. Maintaining healthy plants starts at the bottom with the soil. A change of the plant’s soil could be beneficial. Take plants outside for a summer vacation. Watch for pest and diseases or dust that may block sunlight. Clean your plants’ leaves monthly.

Julie Schoenike is the NGC Indoor and Container Gardening Chair. She lives in Wisconsin.
Save 50%...of the Earth!

Bonnie Rosenthall

Last December, we lost an important global leader in the world of conservation. Edward O. Wilson, known as “the ant-man” told us insects “are the little things that run the world.” E.O. was particularly concerned about environmental degradation and the loss of our planet’s biodiversity. In 2019, the United Nations reported the alarming message that one million of the estimated eight million plant and animal species are at risk of extinction. Much of our once pristine land has lost its natural condition because we have logged it, mined it, regraded it and altered natural water flows of streams and rivers. We have introduced non-native plant species. Some of these changed our wild areas and squeezed out natural native plant communities. The result is a significant depletion of our native flora and fauna - aka biodiversity.

In E.O. Wilson’s book *Half-Earth* he contends that we must save nature on at least half of the planet in order to continue to support life and keep nature’s systems functioning. Preserving half of the earth is certainly no easy task. How can we help do this?

Water and land preservation is vital. Our current lifestyles demand excessive water use. We desire swimming pools and irrigation systems despite more frequent long-term droughts. Large homes and paved driveways contribute to the loss of rainwater meant to soak into the ground naturally and replenish the aquifer. We apply yard chemicals that have negative impacts to water quality, soil health and wildlife. Our exterior lighting, often left on much longer than necessary, contributes to light pollution and negatively affects wildlife. Clearly, our current lifestyles place a heavy burden on our natural resources.

Forests, meadows and protected open spaces all help protect water quality and pull carbon from the atmosphere and store it away. We know that the quantity and quality of our water resources require protection of our forested areas because this is where the best recharge of groundwater occurs. Land Trusts help preserve land by those who appreciate the value of conservation. We must continue to support their efforts.

Based on the knowledge of conservationists who understand the value of protecting the natural world, let us all try for Mr. Wilson’s goal of saving 50%. Please support the protection of our water resources and wild areas as if life depends on it, because it does! For more information on E.O. Wilson visit the [Half-Earth Project](https://www.half-earth.org).

Bonnie Rosenthall is a past President of the Garden Club Federation of Massachusetts. Ask Bonnie about the Native Plant Challenge.

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National Arbor Day

Audrey Coyle

Arbor Day - 50 Years, April 29, 2022, is the perfect occasion to celebrate the wonder of trees and encourage others, especially children, to share in the care of our environment. Trees are the mainstay of a healthy environment. In all 50 states, and abroad, NGC’s PLANT AMERICA with Trees (PAT) program and Arbor Day events preserve traditions that cheer spirits and create earth-friendly benefits that touch every living creature. The following quote from the Arbor Day Foundation displays our similar objectives for planting trees.

*At the Arbor Day Foundation, part of our aim is to inspire people to plant trees. We truly enjoy when we get to do this with other organizations. Having every member of the National Garden Clubs, Inc. plant a tree, is a great way to remind all of us that we can each effect positive change with the simple act of planting a tree.* Dan Lambe, Arbor Day President

On a recent visit to the Arbor Day Headquarters and Farm in Nebraska, I was blown away by the Arboretum and grounds of the home of J. Sterling Morton, the founder of Arbor Day. The climb and walk through the 50-foot high Canopy Tree House was an incredible experience! The site includes the beautiful Lied Lodge and Conference Center, hiking trails and fresh apple cider from their own orchards. This beautiful and educational place graces the Missouri River, which was Lewis and Clark’s Expedition Highway. What were originally a few trees is now a lovely forest providing for wildlife while protecting the adjacent waterways.

As we come together these next two years to plant trees across our world, we need to engage the next generation of tree planters. Inspiring today’s youth is critical to this important work. The next generation inherits a world full of challenges. Trees are one important part of the environmental solution. Planting a tree can be a positive result that connects children with nature and makes a lasting impact on their lives and on the future of the earth. (See page 47 for one club’s efforts to do just this.) Celebrate the 50th Anniversary of Arbor Day reflecting the diversity of your environment.

Audrey Coyle, of Colorado, is the NGC Trees and Shrubs and *PAT* Initiative Chair. State Presidents, please send Audrey the number of trees planted by your members (preferably native) by May 1, 2022. Thank you.
Mac Stone, Photographer & Conservationist

Dawn Mozgawa

Something almost magical happens when Mac Stone picks up a camera. The 37-year-old conservation photographer began taking photos of a little swamp near his home in Gainesville, Florida when he was just a young teen. Little did he realize how those expressions would come to shape his entire life. He is quick to credit his success to early mentors, teachers and patrons who encouraged him to keep exploring his swampy world.

His passion for conservation education first had an impact at age 14, when he shared images from his “personal Walden” with a zoning commission debating a potential real estate development in the swamp. While he was unable to reverse the commission’s decision, the experience awakened a life-long dedication to using photography to spread the appreciation and preservation of land often deemed less valuable to protect. At the time, crowds were not standing around in defense of swampland or its most well-known residents, alligators and snakes. Many more animal and plant species, also, needed support to survive and thrive.

Unsure where those early experiences would ultimately lead him, Stone studied international politics, Spanish and environmental science before cementing his direction in life toward nature photography. That desire led Stone to walk barefoot through a conclave of alligators for photos and to enjoy sleeping in a hammock perched high in a mangrove tree above water.

Stone’s photography allows its viewers to witness endangered species otherwise unobtainable, often taking him weeks to plan and execute a unique portrait such as the exact moment an Everglade Snail Kite drops like a flash to grasp an Apple Snail in its talons. The birds, whose diet consists almost exclusively of the native arthropod, are notoriously elusive. Stone constructed a special underwater table and waited days in swamp water for the exact moment a Kite nabbed its breakfast.

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Stone acknowledges modern technology, in photography editing, assists in fine-tuning his images. He insists that he never adds or substracks any subject matter from his photos. “It is a very strict editing process,” Stone said. “As a photojournalist, it is essential to maintain the essence of what you are photographing as accurately as is possible.”

Stone now lives in Greenville, South Carolina with his wife and two young children. He takes photographs not only in southern swamps, but also in exotic ecosystems around the world. As a National Geographic explorer, he captures incredible, astounding images of wild habitats and the creatures that live there.

When asked how his myriad experiences relate to the average home gardener working in a small plot, Stone is convinced of a similar bond. “The greatest opportunity for inspiration is your own backyard,” Stone said with enthusiasm. “You have an endless opportunity to explore.” As the famous conservationist E.O. Wilson said, “A lifetime can be spent in a Magellanic voyage around the trunk of a single tree.”

Stone is a fellow with the International League of Conservation Photographers. He published *Everglades: America’s Wetland* in 2014. He is currently working on two books, one for the Everglades Foundation and another about the last remaining old growth swamp in Florida, hoping to complete them this year. He is also the executive director of a land trust located near his home in Greenville and was named International Wildlife Photographer of the Year by The Natural History Museum, in London, in 2021.

Learn more about Mac Stone by visiting his [website](#) or his [Facebook page](#). See more of Mac’s photography and his vision for the Everglades in this [Ted Talk](#).

Dawn Mozgawa is our *The National Gardener* Assistant Editor. She is a Master Flower Show Judge and lives in Wisconsin. Dawn thanks Heather White for suggesting this interview with Mac Stone.
Honor Vets and the Earth
Karen Lovell

As Memorial Day approaches with Blue Star and Gold Star Memorial Marker dedications, consider the planet during your events as the Huntsville Garden Clubs did at their recent ceremony. “We hear about the plight of the monarch butterfly not having adequate habitat, so we gardeners use our yards to begin to provide that habitat by planting milkweed which is the monarch’s only food source. We plant trees to reduce urban heat islands. We learn how these plants are part of a complex ecosystem that has evolved over millennia.” says Nancy Butler, President of Federated Garden Clubs of Huntsville and Madison County. She continues “So, we ask ourselves, ‘What we can do?’ How can we slow down climate change and help our planet? Our love of nature, of its beauty and of gardens and gardening leads us to consider everyday acts we can do to help save our planet. We are sensitive to nature and want to live in concert with it. Knowing that one day, we might not hear a bird chirping tells us that we need to bring nature home and align our everyday practices to keep the earth alive and well. We believe small acts, when performed by many, can have a big impact on the well-being of planet earth. So, we want to set an example.”

In consideration of our planet earth, when the Federated Garden Clubs, Blossomwood Garden Club and Forever Green Mountain Garden Club dedicated their Gold and Blue Star Memorial Markers at the U.S. Veterans Memorial Museum, they used recyclable materials at the dedication’s reception. In particular, the clubs provided bamboo forks and no straws.

Bamboo is one of the fastest growing plants in the world. Harvesting does not kill the plant. Bamboo utensils are strong, sturdy and reusable. If thrown away, they decompose and do not end up polluting the environment like plastic. “We hope by setting this example that more people will consider their everyday acts and the impact on our world. Right now, it’s the only planet we have,” says Mrs. Butler.

Plastic accumulation in landfills has significant negative impacts on the environment. Plastic is resistant to decomposition and can pollute landfills, ground water and the ocean. It poses a significant threat to marine and wildlife. The University of California estimates there are some 8.3 billion tons in global circulation. They may not show up on maps, but the world has five floating plastic islands in the Atlantic, Pacific, Mediterranean, Indian and Caribbean oceans. This is the result of more than six decades of dumping waste into the oceans. Most of these plastics are microplastics, less than five millimeters in size, that float inside the oceans’ eddies. Making their way into marine life, microplastics kill more than a million animals a year. Eliminating single-use plastic items is vital in reducing non-recyclable, non-compostable waste and helps protect against plastic pollution.

Karen Lovell serves on the Publicity and Blue/Gold Star Marker Committee of the Forever Green Mountain Garden Club of Huntsville, Alabama.
Ah, the fresh breath of spring with the hum of bees and the baas of lambs. New life, fresh color, weariness of winter passing and the heat of summer is yet to boil. The curious gardener may have already searched the ground to spy a slip of green that could promise a future crocus or daffodil. Now, however, the calendar has declared a new season. The activated gardener is in the welcomed half-state of dreaming and deciding what shall be in the ground or in containers.

First are the tried and true varieties, the ‘Lemon’ squash that has yielded well over several seasons, the ‘Vates Blue Curled’ kale that fills the whiskey barrel to the brim and the ‘Maestro’ pea that provides those tiny tender spheres that swirl so deliciously in the buttered saucepan.

The next step is looking at the new and adventurous choices. Will it be that ‘Purple Lady’ bok choy seen in this year’s catalog? Perhaps it is the ‘Arctic Fox Rose’ foxglove that would hint to the little folks that fairies could be under yonder shade tree?

These choices sometimes collide with the actual amount of space available in the garden. Thus comes the awful task of deciding what will have to be edited. Perhaps, the gardener welcomes the extra work of creating more garden space. It happens, more than once. The day comes when not one more “shirt” can be squeezed into the garden closet and the contemplative gardener has to answer certain questions:

Which plants are my highest priorities? Is there a need to delete some of my collection? Is this cultivar overworking my body or budget? Is it time to make room for something new or even daring?

Despite all the decisions the gardener must make in the spring, one thing is sure: spring is more than welcome! Though work is in the mix, the gardener knows the supreme joy of nurturing living things that refresh the eyes, scent the nose and tickle the fancy. Another plus for the gardener, sleep comes easily after a day’s toil in the garden and the lungs have filled with fresh air. Then, there are the views: the early-riser catches the garden in the sheen of morning light and may stay to capture the soft shades of twilight.

The gardener strives for perfection in the spring but learns to live with some chaos before the season ends. They appreciate their traditional favorites but also keep a close eye on their newcomers. They work, work, work but learn to take breaks and play. They invite visitors, share the bounty and pass on what the season has taught.

One of the best lessons learned is that a garden in the spring is that place where one can sit still for a while, breathe in the calm, exhale concern and just live in the moment while the bees collect their lunch and small birds bathe. Gardeners are happy dance cheerleaders for spring - shouting GO SPRING! NO, STAY SPRING! - as long as possible.

Charlotte Swanson is a NGC Gardening Consultant and a long time writer for The National Gardener.
Espoma Organic and National Garden Clubs Want to Help Your Club

Plant America!

Your local garden projects and programs provide inspiring opportunities that bring neighbors, cultures and generations together to share the experience and joy of gardening. As recognition of the valuable resource that your club contributes to your community, up to 20 local garden clubs across America will be awarded grants. Recipients will earn up to $250 of Espoma Organic Plant Foods & Potting Soils. So be inspired America! Join our effort to Plant America Together. Register your garden club today! Sign up at: www.espoma.com/garden-clubs.
Playing in the Dirt – Provides a Myriad of Benefits

As gardeners, we know that playing in our gardens provides a myriad of healthy benefits. It provides exercise, ranging from gentle stretching to vigorous weight bearing, increases Vitamin D levels, reduces stress by being out in nature and provides an overall sense of accomplishment. There are also benefits, such as growing healthy food, meeting the needs of pollinators and other wildlife and beautifying the spaces that surround us.

During the past two years of the COVID-19 epidemic, much of the general population discovered what avid gardeners already knew: playing in one’s garden provides HAPPINESS! It reduces stress and lifts our moods. It gives the gardener a sense of purpose – from the planning to the planting to the cultivating and finally to the harvesting. The harvest may consist of edible foods, or be a thing of beauty with flowers, foliage and decorative branches. Many gardeners delight in one final gardening act – the joy of sharing with others. They may share abundant, healthy produce or a beautiful flower arrangement. Perhaps they share their love of gardening by giving away plants or teaching others to garden.

Playing in the Dirt – Improves Overall Health?

Recent research looked for a soil to health connection. The scientists leading the investigation come from a variety of fields including agronomists, botanists, ecologists, geneticists, immunologists, microbiologists, pharmacists, physicians and psychiatrists. Together, they give us new reasons to rethink what we once learned about the soil and health relationship. Many of us view soil as a risky substance filled with pathogenic organisms, radon, heavy metals and pesticides. Bacteria, such as E-Coli., Salmonella, Listeria and Clostridium tetani – just to name a few, are the “perceived” villains lurking in the soil. The reality is that many of these things are present in the air and on our skin, BEFORE we even set foot in our gardens. Precautions should always be taken when gardening by assuring up to date tetanus vaccinations and washing hands thoroughly after gardening. However, numerous studies are showing the healthy benefits of working the soil with our hands – gloved or ungloved.

Playing in the Dirt – Does Improve Overall Health!

Mounting research on the microbiome in humans shows that common soil microbes positively influence our bodies. After all, trillions of these little creatures already live in our gut and on the surface of our bodies, despite how clean we think we are! Scientists are realizing the important roles these microbes are playing in everything from regulating our mood to staving off chronic diseases like arthritis, Crohn’s disease, chronic allergies, asthma and many more illnesses. We can help shape our microbiome through our exposure to healthy soils, both by breathing particles in the air and making contact with our skin. Research finds that a certain soil bacterium, Mycobacterium vaccae, has some amazing stress-relieving abilities when we naturally breathe it in while gardening. Humans have long been exposed to soil and beneficial soil-based organisms by farming, fishing, hunting and eating nature’s bounty.

Playing in the Dirt – Get Healthy!

As warm weather approaches, the gardening season goes into full swing. Get outside and Play Outdoors, Play in the Dirt and Play with Your Gardening Friends! Plant veggies, flowers and trees, fill containers and fill your flowerbeds. It will bring HAPPINESS and HEALTH to you and your community! It will, also, help to alleviate that stir-crazy feeling that most of us have from being in quarantine for the past two years.

Debi Harrington serves as the NGC Gardening Committee Coordinator, Community Gardens Committee and Espoma Grants Committee Chairs. She is a Four-Star Member and lives in New Mexico. Click for Benefits of Playing in the Dirt Resources.
Reduce, Reuse, Recycle - Youth Sculpture Contest
Terry Critchlow

The NGC Youth Sculpture Contest encourages students to think about the environment and how they can make a difference by reusing everyday items. Encourage young people in your area to get involved and enter today. See the Youth Sculpture Contest page for more information.

What are the requirements? The students must use predominantly recycled materials. The sculpture’s base may be no larger than 8.5x11 inches. Youth in grades four through eight are eligible to enter.

How does one apply for the contest? Two 4x6 inch photos of the sculpture should accompany the completed application form. The photos are secured to the backside of the page. On the form, the applicant describes the sculpture including the creator’s inspiration and list of materials. The application is sent by postal mail.

What is the theme of the Youth Sculpture Contest? Recycle the 3Rs: Reuse, Repurpose and Recycle. This contest can be used to emphasize the theme of a club’s event or as a teaching aid to include youth involvement.

How are the winners chosen? Each club sends their first place winners on to compete within their own state. The state submits their first place winners per grade level to compete at their region’s level. The region then judges the applicants and sends the first place winners per grade level to NGC for the final competition. The Youth Sculpture Contest Committee chooses award recipients from each grade level and awards first place through honorable mention.

Terry Critchlow is the NGC Youth Sculpture Contest Chair. Terry resides in Washington.
Eco-friendly Gardening
Melinda Myers

We all want to do the right thing for the environment when it comes to growing productive and beautiful gardens. Limited time, space and energy often prevent us from being as eco-friendly as possible. More people, including new gardeners, are interested in being sustainable and looking for guidance and advice from experts like garden club members.

A major garden overhaul or creating your first garden can be overwhelming. Help gardeners implement one or two strategies at a time. As they master these, they can begin including more environmentally friendly methods when designing, planting and maintaining their gardens and landscapes.

The plight of pollinators is helping people rethink their gardening practices. Growing pollinator friendly plants has become a priority. As always, selecting the right plants for the growing conditions and available space is a priority. Native plants are a great choice but some are aggressive and can quickly overwhelm a garden and the gardener. Look for those suited to the soil, sunlight and space.

Tolerating damage is hard for many but a great way to manage insect pests. When pesticides are set aside, gardeners find nature intervening to manage the problem. Of course, there may be times we need to step in and lend nature a hand. Help gardeners look for more eco-friendly methods. Hand picking, traps and barriers can help manage many pests. Products that are more organic are now available. Remind gardeners to read and follow the label directions as these products can also harm the good insects in the garden when misapplied.

The increase in bird watching also helps our gardens. Ninety-six percent of all terrestrial songbirds feed insects to their young. Every year, hummingbirds visit my ‘Major Wheeler’ honeysuckle vine. They sip on the flower nectar but also nibble on the aphids, a nice added benefit.

Leave healthy perennials standing in the garden throughout the winter to increase hardiness, provide homes for pollinators and food for the birds. Wait until daytime temperatures are consistently in the 50’s to cut back the garden allowing beneficial insects to leave their winter homes. If you cannot wait that long, cut and stack perennials out of the way so the insects can exit the plants for summer. Leave some stems in the garden. Cut these back to eight to twelve inches above the ground so beneficial insects can use them for their next home. Chop the removed stems and use the debris as mulch or add it to the compost pile.

Put away the rake and cover the soil with fall leaves. A layer of leaves suppresses weeds, conserves moisture and provides homes for some insects and insulation for frogs and toads overwintering under the ground.

(Continued on page 45)
Managing water is another place we can make a difference. This applies to drought stressed regions as well as those that experience heavy rains that overwhelm the storm sewers. Keeping water on the land is a great way to put it to work in the yard and help reduce water pollution and flooding. Including rain barrels, rain gardens and growing healthy trees and landscapes are all beautiful ways to manage storm water. Even capturing the water in a five-gallon bucket can help. Use this to water houseplants and outdoor containers. Always check with your local municipality before implementing water harvesting techniques. Some areas have restrictions while others provide rebates or discounted rain barrels and rain garden plants.

Improving and protecting the soil is important for the health of plants but also the environment. Incorporating compost into garden beds improves aeration and drainage in clay soils. It also increases the water and nutrient retention of sandy and rocky soils. Compost feeds your plants and the good soil microorganisms to create a healthy growing foundation for your gardens. Yet, it does so much more.

Research found incorporating compost into garden soil provides plants with a variety of essential nutrients over a longer time. It helps soils retain fertilizer and resist erosion thus reducing rainwater run-off that can pollute our lakes, streams, rivers and beaches.

Making your own compost is as easy as placing plant based landscape trimmings and kitchen scraps in a pile and letting them decompose. The more work you put into the process the sooner you have compost for your garden. Many new compost bins look good and help reduce the risk of rodents. Check with your municipality for any regulations or rebates.

Making changes to the way we manage our gardens or for newbies getting started can be overwhelming. Incorporating one strategy at a time can make a difference. Especially if we all work together to make it happen.

Melinda Myers is a TV/Radio Host with a Master’s Degree in Horticulture and is a long time gardener in Wisconsin. She was inducted in the Garden Communicators International Hall of Fame and received the American Horticultural Society B.Y. Morrison Communication Award. Go to Melinda’s website for more environmentally friendly gardening ideas, webinars and handouts. These include practical eco-friendly gardening strategies to help new and experienced gardeners. They help everyone have fun while being successful growing gardens and landscapes.
How many of you have been around long enough to remember Procedure Books? Maybe they were in school theme folders. Maybe they overflowed with old information and stale examples of letters. Has your state discarded that old-school idea? However, Procedure Books or PDs (Position Descriptions) can find new life these days as new people join our organization. Knowing what it was like ITOD (In The Old Days) might aid in understanding the reason for a particular chair/committee. Analyzing the position and suggesting new methods or new technologies could help move your garden club train down the track.

PDs can be digital and shared with prospective board members to entice new people to join your leadership ranks. PDs can be helpful for historical reasons so the old-fashioned hard copy is not all bad. Appoint a team to review every PD for relevancy and bring it up to date. If they do not exist, ask each member of your team to write their own. Start with a month-by-month list of activities. Some chairs may not have something to do every month but it is a place to start! Then when the First Vice President tries to bring someone on board, they can point the new person to a PD. People are much more likely to agree to serve if they know EXACTLY what they are getting into!

Robin’s Nest is a continuing feature of TNG. Do you have questions on leadership? Send your questions for Robin’s Nest to Robin Pokorski.

Robin Pokorski has held many positions within NGC and currently serves on the Membership and Organization Studies Committees.
At Long Last Spring
Dawn Mozgawa

With promise unbroken,
Though most dearly tested,
Spring came at last to visit,
As we’d anxious, expected.

Rushing, flustered, she hurried in,
Quite sorry for the delay,
To clothe the empty branches,
Long since dark and grey.

Catching her breath, she reached to pull
Daffodils from fragrant pockets deep,
And thrust Tulips from her well-worn trug,
Into Gardens fast asleep.

They huddled close, for whatever warmth
Could be mustered midst the Breeze,
While the Serviceberry, with flowers white,
Waved softly to new Bees.

Across the yard, the Redbud blushed,
Smiling shy as pink branches spread.
The other trees tried on their leaves
“Please, wait for us,” they said.

Birdsong coaxed the Crab trees
From tight buds to gentle bloom,
And, finally, then, the Lilacs popped
With their own sweet perfume.

Too fast, too fast!” we cried aloud.
“Now, Spring, don’t be rushing so!
We waited for so very long,
Linger, please, afore you go!”

Too soon, too soon, the sun will press
His bright and urgent heat.
And send us seeking shadows
In sorrowful retreat.

The gentle days will speed away,
Carried by tall storms and thunder,
And so, once again, we’ll have to wait
For those scented days of wonder.
Chula Vista Garden Club’s Arbor Day project started in the 1970’s by planting trees around the hospital and in parks throughout Plainwell, Michigan. When they ran out of places to plant, someone suggested donating trees to students at Plainwell Community Schools. Everyone agreed and it has become an annual tradition ever since. Otsego Public Schools and St. Margaret Catholic School in Otsego were included about ten years ago when many new members were from the Otsego community. The project includes approximately 500 third grade students. Members feel this a good age to get children outdoors for a hands-on activity that teaches them the value of nature, how to care for a seedling and the fun of watching their tree grow year after year. It inspires them to take care of Mother Nature and keep the environment healthy and sustainable for the future.

The process includes the club’s Arbor Day Committee choosing a tree native to Michigan and placing an order with a nursery in southwest Michigan. The seedlings are bare root and must be soaked in buckets of water for 1-2 days. Club members and volunteers gather at the Otsego Township Hall to bag up approximately 500 trees each year. They add moist peat moss to keep them alive until planted and then label the bags with tree species information plus planting and care instructions. Several members load boxes of trees in their vehicles and take them to the schools.

Due to COVID-19, the Chula Vista Garden Club was unable to have this program in 2020 so the third grade students of that year did not receive their seedling. To rectify this, they purchased double the amount of trees in April 2021. They could then give trees to the current third grade students, as well as the fourth graders who missed receiving their gift. (It was especially important to include fourth graders because students, in general, missed so many activities due to the pandemic. The club wanted those students to know they were not forgotten.) Consequently, their costs doubled. Because fundraising during this time was also difficult, they applied for a PLANT AMERICA grant. Club members were much honored to receive $700 for their 2021 project. This amount matched their budget for one year, which allowed inclusion of two grade levels of students. The club purchased 500 each of Michigan Native River Birch and Shadblow Serviceberry trees.

Students always enjoy having guest speakers. Learning about trees and receiving a seedling to take home and plant in their yard is a special activity for them. The kids look forward to it because they have seen their siblings and other students take their trees home when they were in third grade. For the past ten years, club members visited each classroom to give a presentation and distribute the trees. Again, due to COVID restrictions, we could not meet with the students in their classrooms. In 2021, a club member developed a virtual program and provided it to the teachers on a flash drive. Teachers, in all seven schools, showed the presentation to the students whenever it fit into their schedule during Arbor Day and Earth Day celebrations.

The club receives many thank you notes and pictures drawn, by the students, of their trees. Local papers and school newsletters publicize the project. Former students, who are now adults, tell club members how big and beautiful their tree is now. A current teacher, in Plainwell, fondly remembers how she helped the environment on Arbor Day 1985, when she received her seedling. This tree is still growing in her parent’s yard. She looks forward to Chula Vista’s program, every year, to see her students also receive this gift. Chula Vista Garden Club plans to continue the Arbor Day project for future generations.

Karla Labby is the President of the Chula Vista Garden Club of Otsego and Plainwell, Michigan. Contact Karla for more information on their project and for tree preparation images.
Celebrate PLANT AMERICA Month!
Phyllis White

It is spring! As President Mary Warshauer points out, this is the perfect time to consider conservation and community beautification projects. It is PLANT AMERICA Month - April 2022, so start thinking of emerging bulbs, gardening, parks, spring-green leaves and our beautiful ecosystem. PLANT AMERICA embodies NGC's commitment to raising awareness about environmental issues such as land restoration, water conservation, environmental science, sustainability, access to green space and public parks. Topics emphasizing Earth Day and Arbor Day relate to many of our clubs' projects.

For PLANT AMERICA Month, everyone on the Media Team harvested stories from NGC Chairs and garden club members in North, Central and South America to highlight working together on these issues. Read and listen by clicking on the following links.

The NGC Facebook page highlights uplifting projects you want to share with your club. There is something new every day! The new Video Café has more than two dozen videos to entertain and teach. Check out the recent Doug Tallamy webinar; learn how to create professional looking media materials and how to set up a meeting on Zoom with people in the room and at home. Other videos include how to navigate the essential areas on the NGC website, tours of homes, landscaping and a nursery trade show. Remember to look at the membership, grants and award videos, too. Drop into the Video Café today.

The NGC Blog is featuring PLANT AMERICA MONTH, too. New articles come out every Monday. We encourage you to share your favorite gardening topic and growing techniques by writing a story using the Blog Submission Form. Read past articles and subscribe to the NGC Blog. Check the NGC website to find up-to-date information and the coming Calendar section for schools and other events. Purchase your PLANT AMERICA flag, as seen in the image, in our NGC Store.

Phyllis White has loved computers and technology since starting to research her family genealogy in 1994. She serves as the NGC Historian and Media Coordinator. Phyllis lives in Montana.
Countryside Gardeners

Lydia Parry Lewis

Three women interested in the art and science of gardening founded Countryside Gardeners in 1933. These women were members of the Doylestown Nature Club. They saw a need for a smaller club in the Bucks County area. On September 6, 1933, fifteen women met to discuss club names. Garden Rakes was proposed but many felt it was too rakish for such earnest gardeners. The new Countryside Gardeners soon joined the Garden Club Federation of Pennsylvania.

Some early members were Mrs. William Mercer Jr. (Historic Aldie Mansion) Mrs. Charles Harper Smith (Smith-Corona Typewriters) Mrs. Welsh Strawbridge (Historic Graeme Park) and Mrs. Henry C. Parry, of Langhorne, PA. The club participated in many Bowman’s Hill Wildflower Preserve projects such as planting maiden hair ferns, Christmas ferns, wild columbine and dogwood trees. The club continues their affiliation with the Preserve. Mrs. Atlee Burpee (Lois) of Burpee Seeds joined the club in 1938.

In 1940, several club members went to the New York World’s Fair Gardens on Parade*. Mrs. D. Bruce Moyer entered a colorful mass flower arrangement of Pyracantha, Azalea and dried Cryptomeria in a painted tin container. The club held a flower show every year and entered the Philadelphia Flower Show several times and that tradition still stands.

The membership of the club continues to be limited to twelve members. Early on, members held meetings in private homes with a delightful luncheon and required hats and gloves. Several years ago, the club affiliated with Newtown Historic Association. They now meet at the Half Moon Inn where they care for gardens and decorate for the holidays. Hats and gloves are no longer required. Along with business, they learn about a variety of topics like gardens, flowers, design, birds, herbs, famous gardens and enjoy trips to local gardens. They continue to grow as individuals and together as a club. The founders would be very proud of the club’s continuation.

Lydia Parry Lewis was a teacher and is a florist. She is a third generation member of the Countryside Gardeners. Mrs. Parry, was her grandmother. *The New York World’s Fair Gardens on Parade evolved into the Queens Botanical Garden.

NGC History from Fulfilling the Dream

After a March 11, 1929, meeting of 19 state garden clubs representatives in New York City, 28 delegates accepted the invitation of the National Capital Federation of Garden Clubs to come to Washington, D.C., on May 1, 1929. Another 75 joined the meeting as observers. The group’s main objective was to form a national organization emphasizing horticulture. They had been concerned about groundwater and parks issues, but the Quarantine 37 Law, which prohibited the importation of Dutch bulbs, also had captured their attention.

Most of the states that attended clustered along the eastern seaboard, with only three west of the Mississippi. Missing from this list of charter states was Georgia, the birthplace of the garden club movement. While the President of Georgia, Mrs. Phinizy Calhoun, signed the Bylaws, Georgia decided not to become a member since the five cents per capita dues seemed too high. (The five-cent dues are equivalent to 83 cents today.) They must have felt more prosperous in 1931 because they joined then.

The group selected the name, The National Council of State Garden Club Federations. It incorporated in New York State on April 18, 1930. The Bylaws stated the objective: “To bring into relations of mutual helpfulness the State Federations of Garden Clubs and to make combined action possible when deemed expedient.”

They decided the first president should be a state president. Finding one to serve was the challenge. Writing from an historical vantage point in 1954, Cornelia Kellogg described the problem. “Mrs. Paris declined the honor as she was to be abroad for some time. Mrs. Arthur Decker of New Jersey was in a sanitarium recovering from the ‘burdensome task of being a state president’ and the Garden Club of Virginia was not affiliated. In despair, they decided to elect Mrs. Arthur G. Cummer, first President of Florida, and hoped she would accept the arduous position without realizing its dangers. Her physician forbade her to accept, and so Margaret Motley, the wise, imaginative and lovely NCSGF First Vice-President, carried on as NGC’s first president.”

Lydia Parry Lewis was a teacher and is a florist. She is a third generation member of the Countryside Gardeners. Mrs. Parry, was her grandmother. *The New York World’s Fair Gardens on Parade evolved into the Queens Botanical Garden.
In 2021, Chapin Garden Club in Chapin, South Carolina received a generous grant of Ames tools. They requested the tools to use in their project to install and maintain a 70-foot native plant pollinator garden at the Town Hall. The advantage of having the appropriate tools allowed for effectual and rapid planting of the garden.

Chapin Garden Club members collaborated with individuals from the Town of Chapin, South Carolina Wildlife Foundation (SCWF) and the Beautification Foundation. Chapin Town Hall personnel initially cleared the area and erected a wooden fence. Over 200 plants, some donated by Chapin Garden Club members and others purchased with a grant secured by SCWF, were installed with a major focus on non-invasive native plants that occur naturally in their region. Members selected native plants to provide vital habitat for birds, butterflies, moths, and other wildlife. Some of the varieties selected include:

- Asclepias tuberosa
- Baptisia alba
- Baptisia australis
- Coreopsis lanceolata
- Echinacea purpurea
- Eupatorium perfoliatum
- Pycnanthemum flexuosm
- Pycnanthemum muticum
- Vaccinium darrowii ‘Rosa’s Blush’
- Sorghastum nutans
- Stokesia laevis

Flossie Narducci is the NGC Sponsorship Committee Vice-Chair. See the Ames Tool Grant page for more information.
What is the difference between tabling a motion, referring a motion and postponing a motion? As NGC Parliamentarian, I addressed this question as part of an NGC Leadership Workshop on March 14, 2022 and in the March issue of Keeping in Touch.

The three above motions are all subsidiary motions, meaning the assembly uses them to treat or dispose of a main motion. Notations after each motion, below, references where to find more detailed information in Robert's Rules of Order (RONR) Newly Revised 12th Edition. As always, please feel free to contact me with any questions. I am happy to help and serve the NGC members and clubs.

**Lay on the Table**
This motion is used when there is a reason for the assembly to lay the motion aside temporarily, without setting a time for resuming its consideration. It is with the provision that the motion can be taken up again (to Take from the Table) whenever the majority so decides to do so. (RONR 12th ed. 17:1-24)

**To Refer (or Commit)**
This motion is used when a main motion needs to be amended, but it may take too much time to amend the motion properly, or that additional information may be needed. By moving to “refer” the motion, it is sent to a committee for study or redrafting before the assembly considers it further. It is generally used to send a pending question to a relatively small group of selected persons, e.g. a committee, so that the question may be carefully investigated and put into better condition for the assembly to consider. (RONR 12th ed. 13:1-26)

**To Postpone (or to Postpone to a Certain Time or to Postpone Definitely)**
This is a motion by which action on a pending question can be put off, within limits, to a definite session, day, meeting, hour or until after a certain event. Do not use the language “to defer” when making the motion to postpone. A question may be “postponed” either so that it may be considered at a more convenient time or because debate has shown reasons for holding off on a decision until a later time. Do NOT confuse with the motion “Postpone Indefinitely,” this does not postpone a motion, but actually kills it. (RONR 12th ed. 14:1-22)

Patty Arndt is the NGC Parliamentarian. She resides in West Virginia. Visit the Robert's Rules of Order to order the latest edition. Article previously printed in Keeping in Touch, March 2022, Brenda Moore, Editor.

**Lower School Costs**

Greg Pokorski

During a recent Care to Share event hosted by First Vice President Brenda Moore, the Schools’ Chairs provided the following ideas for lowering the cost of hosting NGC schools.

1. Obtain a low-cost or no-cost venue for in-classroom or hybrid courses. Consider arboreta, garden centers, churches, government buildings, libraries or schools.
2. Negotiate with instructors. If a fee is too high, keep looking. Low-cost options include Master Gardeners, county agents, naturalists, arborists and others who support your mission. Advise presenters that the sponsoring organization is a non-profit entity.
3. Charge for food separately from the course fee. Allow or encourage attendees to bring their own lunch. If asked, garden clubs or members may donate or serve food.
4. Set a budget based on realistic attendance expectations. Then aggressively advertise and promote the event. Offer participants the option to attend for only one day even though not eligible for NGC credit. Offer members a discount to encourage attendance and encourage others to join your club to get the member discount.
5. Email course materials rather than print them.
6. Consider virtual or hybrid options. The Zoom platform is available for $16 month without an annual subscription.
7. Encourage clubs/districts/states to offer scholarships to reimburse students for attending schools.
8. Ask clubs/districts/states/councils to provide funding, such as for a specific speaker.
9. Think outside the box and advise others of your ideas. A recent in-person Environmental School in California was $40 per course. The venue was free, lunches and snacks donated and the single instructor did not charge. The host club made money.

Contact the NGC Schools’ Chairs for more ideas: Pat Rupiper (ES), Jan Warshauer (FSS), Charles McLendon (GS), Greg Pokorski (LDS), Doris Duckworth (Refreshers) and Julia Clevett (Symposia) Article excerpted from Newscape, Spring 2022, the NGC Schools’ Newsletter, Caroline Carbaugh, editor.
Looking for Inspiration
Ruth Evans

What is inspiration, and where does it come from? Members of the Massachusetts Judges’ Council investigated these questions during a recent Zoom gathering. In this article, we share the plan for their program, and some of the insights that came from their interactions.

“You’re so creative!” Floral designers get this compliment with regularity. It makes us feel good, but we also know that creativity can be a chore. A task that brings sleepless nights with the recurring questions, “Why did I sign up for that?” “What am I going to do?” We toss and turn, hoping for inspiration, not sure what it is or where to find it.

The program was introduced with these words from Bob Thomas’s *The Essence of Floral Creativity, a Legacy*. Creative people do at least seven things well:

1. They challenge assumptions.
2. They recognize patterns.
3. They see in new ways.
4. They make connections.
5. They take risks.
6. They maximize chances.
7. They construct networks of people for exchange of ideas, perceptions, questions and encouragement.

First, we turned to the dictionary to be sure we knew what we were seeking. *Inspiration is the process of being mentally stimulated to do or feel something, especially to do something creative* • the quality of being inspired, especially when evident in something • a person or thing that inspires • a sudden brilliant, creative, or timely idea.

We tried to recall, “What was going on in our heads when we were inspired?” We ran into another term: *Metacognition: the awareness and understanding of one’s own thought processes*.

We developed the following essential question and learning objectives. Where do the ideas, many of which we appropriate from others, come from? By the end of this discussion, we wanted participants to be aware of the creative thought processes of colleagues and to expand/have greater awareness of their own creative thoughts.

For the presentation, we:

♦ Recruited four highly regarded Master Flower Show Judges from our group. These four are designers from whom many others draw creative ideas.
♦ Asked each of the four to share triggers to their creative thinking when they are not planning a specific design; when they do not have a project before them.
♦ Invited responses from our Judges’ Council audience. (What gets your creative juices flowing? Are you aware of your thought processes as you create?)

Our four generous and creative Master Judges provided these key phrases:

*Cathie Healy:*
♦ Develop a growth mindset
♦ Try something new, work toward mastery
♦ Explore
♦ Exercise creativity like a muscle
♦ Engage in active thinking
♦ Go outside your comfort zone
♦ Make connections
♦ Diversify
♦ Exercise
♦ Train your eyes to see
♦ Have fun

*Maureen Christmas:*
♦ Explore the ‘W’ questions: Who, What, When, Where and Why
♦ Extract color schemes from colors within a flower
♦ Adapt to season
♦ Adapt techniques to different materials & situations
♦ Use unique materials (teabag example)
♦ Adapt common containers with unique additions (wine bottles/spider web)
♦ Notice the effect of light and incorporate it
♦ Re-use/recycle plant parts and other materials - think ‘economy of means’
♦ Apply skills you have differently

(Continued on page 54)
Thelma Shoneman:
- Seasons
- Occasions: Church (scriptures, recognitions, liturgical calendar)
- Themes, such as travel
- Just because (PLAY)
- Art work
- Be patient, keep at it
- Take risk
- Involve others/have fun

Kaye Vosburgh: Creative problem solving
- Apply formula
  - Gather materials
  - Assemble creation
  - Review quality of work
  - Present/share work
- Gather materials wherever you see them, using trained eye.
- Build on experience
- Ask self, “What am I trying to do?”
- Play more
- The more you practice, the more creative you become

As flower show season begins, stretch yourself, engage and grow your mind. You never know what might inspire you.

Ruth Evans is the Vice-Chair of the Massachusetts Judges’ Council. Click for a list of additional resources for Floral Design Inspiration.
President Mary’s Travels
- April 3: GC of Alabama, Huntsville, AL
- April 12: GC of Georgia, Macon, GA
- April 18: South Central Region, Galveston, TX
- April 24: GC of Illinois, Lisle, IL
- April 26: Pacific Region, Las Vegas, NV
- May 2: Texas GC, Austin, TX
- May 15: NGC Convention, Orlando, FL
- May 24: New Hampshire Federation of GC, Manchester, NH
- June 3: Nevada GC, Las Vegas, NV
- June 6: Federated GC of Vermont, Ludlow, VT
- June 9: Kansas Associated GC, Wichita, KS
- June 12: Federated GC of New York State, Poughkeepsie, NY
- June 17: Wyoming Federation of GC, Casper, WY

Mark Your Calendar
- April 11 (PLANT AMERICA Grants), May 9: Membership Mondays, 2:00PM Eastern Time, Virtual
- May 16 - 19: NGC Annual Convention, Orlando, FL

Coming Soon
- April - November: Environmental Schools*
- April - October: Flower Show Schools*
- April - September: Gardening School*
- April - October: Landscape Design School*
- April - June: Multiple Refreshers*
- April - November: Symposia*
- International Events*

*Clicking on these links takes you directly to the most up-to-date course listings and details on the website. Subscribe to TNG to assure email notification of NGC events. Throughout TNG click on ads to go directly to advertisers webpages and blue, underlined links for more info or to contact a chair.

Be a Star! We Want You...
...to send in articles, tips, ideas, photos, etc. for publication in The National Gardener, the NGC Blog and Newscape as well as our NGC Social Media outlets. The editors encourage and welcome ALL NGC members to submit articles and story ideas. Do not worry about your writing skills, we help you out. Help others by sharing your garden success, failure and fun. Do you have an upcoming flower show, garden walk or community project? Send us photos and tips for other clubs.

NGC Blogs are short articles, The National Gardener includes longer articles and Newscape concentrates on news from the Tri-Schools. The Social Media Team welcomes short blurbs and photos. All of the editors love images. Just remember to obtain permission for use of someone's likeness.

Click on any of the links for more submission information. Become a shining star in your club and write for NGC! ★★★★★★
When Life Throws You a Curve Ball...

...You Get to Yell a Little Bit.

Sitting on the Porch
Gerianne Holzman, Editor

We all experience life’s ups and downs and sometimes sideways. The “sideways” are unexpected turns in the road that can throw all your plans into the air without knowing where they will land. While in the midst of one of these curveballs of life, we realize where we get our strength, whom we can count on and when it is okay to just let go. Sometimes we just need to give in to our emotions. We can cry, scream, stomp or go dig in the dirt. As pointed out in this issue of TNG, going outside, playing in our gardens and just breathing the richness of the soil helps to calm and rejuvenate our spirits.

During difficult times, we find strength in faith communities and volunteer opportunities. Our family, friends, garden club, work and play may help to relieve our tension. We realize that we can look deep within ourselves and find power that we never knew existed. Keeping our hands and bodies busy can ease the constant flow of thoughts racing through our minds.

Most importantly, we know friends will step in with support. They might walk your dog, bring a meal, share a cup of coffee or glass of wine or just be available to chat. If friends offer to help, they mean it. As strong women and men, we often think, “We can do this ourselves.” We must remember that just like it is okay to yell a bit, it is okay to accept help when it is offered.

To everyone in the garden club world who is working through your own sideways turn in life, spend some time outside, say yes when someone offers, scream a bit and take care of yourself so you can help others. You got this!

Lean on me, When you're not strong, And I'll be your friend, I'll help you carry on...
For it won't be long, Till I'm gonna need somebody to lean on...

Lean on Me by Bill Withers

We appreciate all of the amazing stories, articles and images in this, our special Environmental and Gardening issue of The National Gardener. Send comments and suggestions for future issues to Gerianne Holzman, editor. We encourage all NGC members to submit articles.
NATIONAL GARDEN WEEK
June 5-11, 2022
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