Seedlings for Schools
2022–23 Final Report
Rose Kinane, Program Coordinator
Program Description, Criteria and Timeline

The Seedlings for Schools grant provides Florida native wildflowers, classroom resources and professional guidance on garden establishment to public and private K–12 schools throughout Florida. The goal of the program is to increase students’ awareness of Florida’s wildflowers and their role in Florida's natural ecosystems using these outdoor classrooms.

Grant applications were accepted March 1 through May 15, 2022. To apply, teachers completed an online application and provided three photos of their garden site. Criteria for eligibility includes a suitable area for growing wildflowers and a commitment by teachers to use their garden as a tool to teach students about the importance of native plant species in Florida’s ecology. Recipient teachers are required to complete a fall survey and submit three photos of the planted garden. Teachers are asked to describe the success of their gardens and the interaction of the students as they planted and cared for their wildflowers. Information is also gathered about the use of the garden in achieving Florida curriculum standards. Those who demonstrate a commitment to the program and complete the fall survey are given the option of receiving an additional seedling shipment in the spring.

Grant Awards

The decision-making process was a difficult one, with many worthwhile schools vying for a limited amount of grant dollars. Of the 78 schools that applied, 30 grants were awarded for the 2022–23 school year. Those selected were schools that applied earliest and provided the best quality applications. They comprised:

- one primary (ages three to six)
- one PK–5
- one PK–6
- one PK–8
- two PK–12
- one K–8
- one K–12
- one 2–12
- 13 elementary
- three middle
- one school district study center and
- four high schools.

Approximately 2,485 students were impacted by the wildflower gardens, according to estimates received from teachers. Across all schools, an average of 52% of these students participated in the free lunch program.

2022 Seedlings for Schools
Grant Award Winners

Ashton Elementary, Sarasota
Bailey Elementary, Dover
Chiles Elementary, Tampa
Collins Elementary, Riverview
Cranberry Elementary, North Port
DeLand High School
Fairway Elementary, Hollywood
Fernandina Beach Middle School
Forest Ridge Elementary, Hernando
Gulf Breeze Montessori
Horizon High School, Winter Garden
Idyllwild Elementary, Sanford
Indiantown Middle School
Lakeside Elementary, Pembroke Pines
Mangrove School of Sarasota
Marjory Stoneman Douglas High School, Parkland
Miami Country Day School
Monarch Learning Academy, Orlando
NewGate School, Sarasota
Northside Christian Academy/Anchored Academy, Fort Pierce
Osceola Middle School, Ocala
Osceola Schools Environmental Study Center, Kissimmee
Pine View School, Osprey
Round Lake Charter School, Mount Dora
Seaside Charter North, Jacksonville
SeaWind Elementary, Hobe Sound
St. Petersburg High School
St. Peter Catholic School, Deland
Stone Lakes Elementary, Orlando
Sun Grove Montessori School, Fort Pierce
A huge thanks is due to our partner, Green Seasons Nursery in Parrish, Florida. They put a great deal of effort into growing the plants and coordinating the shipping of seedlings over the years. This year, they shipped 40 rooted plant liners to each school in September. The shipment included five Pink swamp milkweed (Asclepias incarnata), five Blue porterweed (Stachytarpheta jamaicensis), five Spotted bee balm (Monarda punctata), 10 Tropical sage (Salvia coccinea), 10 Black-eyed Susan (Rudbeckia hirta), and five Muhlygrass (Muhlenbergia capillaris).

Twenty-six of the schools received a spring shipment, which included eight Black-eyed Susans (Rudbeckia hirta), seven Oblong leaf twinflower (Dyschoriste oblongifolia), 15 Tropical sage (Salvia coccinea) (5 of each color: red, white, pink), six Leavenworth’s tickseed (Coreopsis Leavenworthii), and four Spotted bee balm (Monarda punctata). The cost of plants and shipping was $50 per school, for a total of $1,500 in the fall and $1,300 in the spring.

Garden Sites and Conditions

Some garden sites were small plots in school courtyards and some were grow boxes while others were an expansion of dedicated outdoor learning spaces. Ten ground plots were less than 100 square feet and 13 were greater than 100 square feet. Seven were grow boxes. About half of the gardens received more than six hours per day of full sun. Almost half were reported to be occasionally moist, while the rest required some irrigation.
Challenges and Successes

Teachers received notice of when to expect the seedlings, which were delivered by September 21. Hurricane Ian made landfall in Florida on September 28, followed by Hurricane Nicole on November 10. Both caused much damage throughout the state, and some of the gardens were adversely affected. Three were destroyed. As hurricanes are unforeseen, catastrophic events, the schools who lost their plants as a result were automatically offered a spring shipment of seedlings.

Twenty-eight of the 30 schools successfully completed the fall survey. Of those, 26 accepted the offer of a spring shipment of seedlings. Those declining were schools whose garden sites were destroyed by Hurricane Ian.

All gardens that were successfully established were reported to be a permanent part of the school landscape to be employed year after year for teaching purposes.

Gardening Partners

Students and teachers were not on their own in planning and maintaining their wildflower garden. In addition to resources from the Florida Wildflower Foundation (FWF), many schools received assistance from members of their local communities. Teachers were resourceful, creating garden committees led by parents and recruiting volunteers from community colleges, master gardeners, garden clubs, landscapers, high school students from other schools, and other community volunteers.

Gardens as Educational Tools

While the gardens were mostly used in science curriculum, they were incorporated into a broad range of subject areas and lessons, including:

- Environmental science, ecology and interdependence
- Value of native plants vs. nonnative, threats of invasive species
- Plant life cycles, pollination, plant anatomy
- Biodiversity and species identification
- Horticulture and agriculture
- Water cycles
- Language arts (writing)
- Reflection, mindfulness and meditation
- Math studies (measurements and geometry)
- Observation and data collection
- Cartography
- Chemistry (pH, alkalinity and nutrients of the soil)
- Environmental stewardship
- Teamwork and collaboration
- Work ethic

Students learned wildflower names, growth habits and growing conditions from the wildflower information guide and plant profiles provided to teachers when seedlings were shipped.

Lori Hanson of Chiles Elementary commented:

“We appreciate the program so much! For many of our students, this is the first exposure they have to the concept of plants and animals being native.”
Dr. Karen Grimm of Idyllwilde Elementary in Sanford described the benefits of the garden:

“Our school really appreciates your support in giving us seedlings to grow. The entire school always comments on how the garden area is helping our students not only appreciate plants, but understand more about native plants, the importance of pollination, and the responsibilities needed to make a garden successful.”

Melissa Pastor of Seawind Elementary reported on their scientific research:

“We have tested the soil alkalinity, measured how much water/rainfall it has received, what type of pollinators are attracted to it, what would happen if the flowers were not pollinated, and measured how tall/how much growth there has been.”

**Promoting Gardens to Others**

The native wildflower gardens were publicized in school newspapers, newsletters, websites and videos, and on social media. Tara Vaughn of Bailey Elementary was recognized by the Hillsborough Association of Elementary Science Teachers for her Twitter updates of her fourth-grade outdoor classroom. St. Peter Catholic School promoted their garden in the West Volusia Beacon. Many teachers mentioned that the garden was a source of pride for the whole school, not only the grades working directly with it.

**Florida Wildflower Foundation Resources**

Teachers were provided a link to FWF’s classroom resources web page (www.FlaWildflowers.org/classroom-resources). The page features FWF’s downloadable *Wild About Wildflowers! Activity Guide*, a comprehensive curriculum featuring activities designed to help students achieve educational standards in math, science and language while learning about native plants, pollinators and ecosystems. The activities are aligned to third- and fourth-grade Florida state standards, but can be adapted to other grades and ages. The classroom resources page also provides suggestions for books on nature education. Other resources provided include a guide for preparing a wildflower garden site, additional information on planting Florida wildflowers, and links to resources on attracting birds and insects with native plants.

Half of teachers reported using the *Wild About Wildflowers! Activity Guide* and other resources to help plan classroom activities. In the spring, 80 percent said they reviewed the guide. FWF is in the process of expanding this guide to include lessons that emphasize the importance of Florida wildflowers for habitat connectivity and ecosystem health, and to teach students how to identify wildflowers, where to find wildflowers, how they are named, and much more.
Survey excerpts
Following are teacher comments from the December 2022 and May 2023 surveys that illustrate how their gardens have influenced outdoor and indoor teaching experiences.

**Anchored Academy, Fort Pierce; Errin Williams**
My students helped with the planting, with each student selecting three plants to put in the ground. They enjoyed that part, and look forward to maintaining the garden by watering and pulling weeds each week. Most of our time in the garden was spent talking about the plants themselves, and making sure they were pulling weeds and not flowers.

We prepared the bed by pulling out established arboricolas, raking out the red mulch that had been in the bed for years, then laying a layer of cardboard, and covering it with fresh organic soil from a local source. We watered it well and then let it rest from July until the seedlings arrived. We were unable to place pine needle straw, or cover the soil, but it was not difficult to keep the weeds down by plucking them every week with my students.

I often mention to my students how important it is to have bees and butterflies in our environment, and to plant native plants that support them. They were shocked to learn that we would not have many of their favorite fruits and vegetables without bees and butterflies pollinating those blossoms.

**Ashton Elementary, Sarasota; Kelly Griffith**
Our students help in every aspect of our school garden. Students prepared the beds before planting, planted the flowers, and later vegetables. Students also take care of monitoring the plants, watering the plants daily, and measuring plant and vegetable growth. Students use the garden to support their science curriculum for the parts of a plant, a plant’s life cycle, and interdependence. Our garden is a centrally located, beautiful, and educational addition to our elementary school campus! My classroom website features an article on the generous Seedlings for Schools grant program! Thank you for helping me instill a love and appreciation of the natural world! You make a difference at our school!

**Bailey Elementary, Dover; Tara Vaughn**
Students participated in the preparation and planting of the garden space. With support from the landscaper, the garden was added as an addition to our current landscape that already included several natives. They are looking forward to the spring when we can observe life cycles. They did research on their flowers and will be making a small booklet or pamphlet. Small garden signs were made by the students to tell visitors about each plant.

Students have learned the importance of having native plants, as they are a natural food source for our native animals and insects. We are also participating in Feeder Watch Project through the Cornell Lab of Ornithology. They were excited to learn that our wildflower garden would benefit our observations as our garden would attract more native birds and wildlife to our area. The native landscaper, Springer Environmental, has created a presentation that will teach our classes about the importance of native plants and the ecosystem.

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— Tara Vaughn, Bailey Elementary
Chiles Elementary, Tampa; Lori Hanson
We have discussed native, Florida-friendly and invasive plants. The kids have noticed the diverse insects and birds attracted to our garden. We will be doing some more thorough research and making posters on the native plants after winter break. The kids prepare, plan and tend the garden. The biggest problem we encountered was the rain brought on by the hurricanes this year. But our natives survived! We will be creating signage as the kids complete their research. We are hoping to take teachers on a tour to encourage them to plant natives at home!

Collins Elementary, Riverview; Gloria Brooks
My Pre-K students did all the planting and watering! The garden is near some second and third grade classes so they enjoy the garden as well. Unfortunately the strong winds from the hurricane caused the Muhly grass to tilt to the side, but it’s still growing! We are excited to add more plants and flowers to our garden!

Cranberry Elementary, North Port; Laura Kemble
My second and fifth graders prepared our garden this year. This is the seventh year of our garden, although it has expanded over the years. Luckily, I had the plants in my indoor grow lab when we were unable to return to school for three weeks following a direct hit from Hurricane Ian. Thank goodness our garden area was spared, and I hadn’t planted yet. I found last year that at the time of grant reporting, our plants were still small, but by the spring, they had grown amazingly and were blooming so much that they had to be pruned before our summer break. Since we got a late start, I expect the same to happen this year. The stems and leaves are green, but they have not yet grown much. We learn patience from having a garden, and this year is no exception. I look forward to our beautiful plants growing in the upcoming months, and to adding more in the spring. Thank you so much for the beautiful plants and for your patience with us and our trials this year!

I teach K-5 science to every child at our school. I teach plant parts and pollination/reproduction of plants. We also learn A LOT about pollinators such as bees and butterflies from our garden observations. My students and I completely run the garden. My fifth graders helped in the fall, and now my seven second grade classes go out with me every day. They planted the flowers, weed, and water the plants. I just love how all of the flowers from both seasons are in bloom right now. I LOVE receiving native plants from you so that I CAN teach about native plants. We can see how much more hardy they are in our environment and how once they are established, they thrive.

— Laura Kemble, Cranberry Elementary

DeLand High School, DeLand; Stacy Rizzo
Thank you! I really enjoy having a native plant garden on campus and I hope to expand this in the future! Overall, I am pleased with how successfully the garden is growing. Even during especially dry periods, the plants did not die back, and overall there was very good survivorship of all plants. It is located in an area where lots of people walking by can enjoy it, and I have received many compliments on how nice it is. This garden has motivated the school principal to install more pollinator gardens to beautify the campus.
**Fairway Elementary, Hollywood; Loni Ferris**

My class of 20 four-year-old students helped prepare, plant and maintain our garden. Every week, two students are the botanists and help take care of the garden. We used the garden to investigate how plants grow, what is needed to grow, and the parts of plants. We discussed the plants and how they contribute to our environment. Thank you! We LOVE our garden!

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**Fernandina Beach Middle School, Fernandina Beach; Katie Haynes**

Our garden continues to flourish with the seedlings over the last few years. We have a garden club that is in charge of preparing the soil and boxes, planting the seedlings, and caring for them. They prepared the garden boxes from the previous year, cleared out dead plants and consolidated plants into the five boxes that we have. They planted all of the plants with our supervision. The garden was pretty successful this round! We have plaques for most of the plants in our boxes with pictures and descriptions. We used the garden to teach students about abiotic/biotic factors, symbiotic relationships, and the importance of native pollinator plants.

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**Forest Ridge Elementary, Hernando; Laura Gatling-Wright**

The students helped prepare the garden by pulling weeds and tilling the soil. Then they planted the plants individually. We discussed native and invasive Florida plant species and the importance of pollinators.

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**Horizon High School, Winter Garden; Stephanie Jornd**

The students participated in the research, planting and planning. The expectations did not meet my reality, because we planted them and then had a hurricane and had to move them into the greenhouse. Then our greenhouse got hit by lightning and we had to rescue them. The students have learned about environmental damage, and the stress it puts on plants, as well as signs that a plant is struggling. We still have 75 percent of our plants that we are bringing back to life from the environmental stresses. Students have enjoyed the problem-solving aspect, and prepping aspect of keeping the plants alive.

The students are currently planning out a quality landscape to put them in the ground, and a maintenance plan to keep them alive. We have a horticulture class of 22 that is immensely enjoying it. We had to mark it off from being mowed, and put up a temporary sign. Students are creating a bigger better sign out of recycled wood. Thank you so much for this opportunity!

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**Idylwilde Elementary, Sanford; Karen Grimm**

Students in grade 5 took part in planting. Then other grade levels used the area in their plant units when learning about fertilization, germination, seedlings, and growth habits. A garden club of fourth and fifth graders then helped maintain the garden areas. All students and staff commented on how the garden not only brings beauty to the campus, but unlimited opportunities to learn from. Many commented on the fact that the garden really inspired their kids to want to get involved in some aspect of gardening, which is ultimately the goal! In fact, two garden academies were created due to an increase in interest in gardening. These are academies we hold once a month.
As always, we thank you for your continued support in helping our kids on campus learn about native plants and gardening in general. The students and staff all love to see the beautiful flowers in bloom, and this one garden area has led to a Garden Club, a garden leadership academy, and classes creating their own mini garden areas!

**Indiantown Middle School, Indiantown; Ashley Monks**

All students participated. We planted the plants the day after we received them. We then collected pine needles for mulch and also added additional large *Salvia* plants from our other garden area. We cannot wait for the garden to grow! We already have smaller plants coming in such as salvia sprouts all over. These plants were started from seed sprinkling.

In garden club and in the entire ELA classes at our school native plants were shown, by having students come down to the garden area explaining the significance of native vs non native. The plants were used as the theme for their poems.

**Lakeside Elementary, Pembroke Pines; Stacey Wichmann**

I teach science specials to all K-5 students. Once a week, students take their science notebooks outside and record, draw and label their observations. Two groups of second and third graders helped to plant. All students have been involved in observing and monitoring.

This garden has exceeded my expectations! I did not think that 100 percent of the plants would survive. I have not lost a single plant and all flowering plants have bloomed. I have already collected seeds from the *Salvia* with the students. I am hoping for some volunteers soon. I couldn’t be happier.

We have Monarch caterpillars on the milkweed and have observed White peacocks, Gulf fritillaries, Zebra longwings, and Long-tailed skipper butterflies on the flowers. Bees are always present.

My biggest concern is weeds. I guess if the area is healthy for the plants, the weeds would love it, too. I am working with a group of older after-care students to learn to distinguish weeds so they can help.

**Mangrove School of Sarasota; Erin Melia**

Our students helped prep the area and plant the flowers. We had to change our plans a bit due to some lingering flooding from Hurricane Ian, but that was also an opportunity to be adaptable to whatever is happening in nature!

We actually used the garden in most subjects, since there is so much overlap! Students kept garden journals detailing various concepts as well as plans for the garden, maps of the garden, and reflective writings. The garden provided a hands-on experience for students to learn native plants and how planting native is a benefit to other beings and aspects of our ecosystem. They could see how planting some in a new area changed the landscape—suddenly more birds and insects appeared. It was neat for them to see that kind of dramatic difference.

The students helped plan the wildflower garden as well as plant the seedlings, and then care for them, often checking on them daily, watering as needed. We had great success with our garden and although the children love to tend them, the plants seemed very happy and really thrived!

The students all know the plants you sent and were able to see them go from tiny seedlings into full fledged plants, which often looks quite different or grows beyond our expectations. Students are
able to recognize these plants when we visit healthy natural spaces, know the benefits for us and the pollinators that often visit, and see how easy it is to plant and grow native wildflowers!

Students utilized this area as a sit spot, or area of quiet observation, where they would witness the different beings that would visit, or simply the beauty of the plants. They would record their observations in nature journaling activities. When planning the garden, students utilized math skills to properly measure out their plantings as well.

We are working on a video and will share it soon! Thank you so much for your love and care of Florida wildflowers and for this precious gift to our school this year. We are so grateful!

Marjory Stoneman Douglas High School, Parkland; Brandon Kyle Jeter

I’m in charge of the entire garden, which includes nine different “zones.” It’s a huge project, but my colleague, Colonel Mark Anders, is the head of our JROTC program and oversaw the planting of the wildflower area (part of Zone 8). I was elated that his first step was having the students map out the field themselves and plot exactly where each plant would go. He ensured that the students maintained the area and kept it watered the last couple months. It has done exceedingly well under his management, and the students involved are excited to see the results. Colonel Anders had the students completely remove the grass from the area and added a rock boundary before the plants arrived. We don’t use herbicides. Each week, we have an average of 40 volunteers (mostly students, but also teachers and community members) and usually at least 10 or so weed for us.

We have a new botany class this year that helps maintain the garden. Mr. Davis has had his students on a weekly basis studying every aspect of plants and has used the wildflower garden as an example of how to start a new garden.

The wildflower garden is an amazing addition to Marjory’s Garden! We really appreciate the donation and look forward to sending you more pictures once this area matures and expands into an even more beautiful space. It has become one of my favorite places to show during our garden tours. This year we had two US congressmen and the commissioner of education for the State of Florida visit and I specifically mentioned this program while showing them the wildflower areas.

Monarch Learning Academy, Orlando; Juniper Seyna

5th grade students helped me prepare the space and plant our wildflowers once they arrived. Since then all of our student gardeners have been able to see the wildflower garden and observe any insects visiting the area. We have seen Monarch caterpillars and ladybug eggs. Preschool and up observe and journal to record changes over the season. We talked about the impact non-native plants can have on the pollinators who rely on native plants for food and shelter.

NewGate School, Sarasota; Jenni Presley and Casey Gramaglia

It was successful! All the work was done by the students; preparing the soil, mixing in compost, choosing where to plant, planting. The children always enjoy preparing the beds, planting, and watering! They are so excited when the seedlings arrive. Our Care of Environment curriculum is
some of the most important in Montessori and promotes good citizenship and ownership of the environment. We talk about plants and the animals they help almost daily.

**Osceola Middle School, Ocala; Jessica Williams**

We have absolutely loved this experience. We were lacking pollination and really needed the addition of pollinator plants. The process was so easy, shipping the plants directly to us, which I must say came in great condition. I am always worried about shipping plants! The students took part in the entire experience from looking up the needs of the plants, preparing the soil, planting the seedlings, watering and enjoying the beauty of the flowers and the many pollinators that visited our garden.

The reality of this project exceeded my expectations. I grow mainly vegetable crops so I was a little nervous to work with ornamentals but it has been amazing! We see so many pollinators in the garden which makes for a perfect learning moment. Thank you so much for this opportunity! It has been very successful.

**Pine View School, Osprey; Marie Rosander**

I really enjoyed having a garden arrive in a box. The students were able to install it in one class period! Students have been participating in the planning of this garden for almost a year. They built the bed, smothered the weeds with cardboard last year, continually weeded it for six months, and mulched it before we even got plants. Our Florida Native Flower garden is within our larger garden and is a beautiful example of student effort, planning, and organization partnership.

The seedlings were small, especially the muhlygrass. But the plants quickly took root and most have grown considerably since September. All look great and have taken root. Every plant survived Hurricane Ian and is thriving.

Overall, this was an amazing experience that our students absolutely love. Our two pollinator gardens add so much habitat and food for our pollinators. The garden is alive with butterflies and bees, as well as many other pollinators. The garden is visited by 80-100 students a week from Pine View’s elementary, middle and high school. We are so happy with our Florida Native Garden! It is such a special and beautiful garden.

**Round Lake Charter School, Mount Dora; Amber Perretti**

We had a wonderful garden experience and have attracted so many pollinators to our garden. The middle school STEM students prepped the flower beds and planted the wildflowers. They installed the irrigation and maintained the beds weekly, watching the plants grow through the season. Our garden is located next to our outdoor lunch room and a pathway leads through it to several classrooms. A majority of students walk through the garden daily and we were able to encourage more students and teachers to visit our garden by installing a storywalk program, which led through the garden, as well. So many compliments were received and everyone was very impressed. We are so excited to keep this garden growing!

We are in the process of procuring plant identification signage. We also created a Florida Native plant and butterfly permanent sign with color photos and information on the butterfly life cycle. In addition, we became a Certified School Yard Habitat and a Certified Butterfly Waystation.

Thank you for including our school in this program! It was a huge success.
Seaside Charter School North Campus, Jacksonville; David Torrey

We point out that native plants grow better than those wildflowers that may not be native to this area. They are thriving because this is where they are meant to live.

Seawind Elementary, Hobe Sound; Melissa Pastor

We are so lucky to have received this grant! It was been really educational and fun for the students to learn about our local plants.

We have a Green Team at school that prepared the garden area and learned all about the program—what to expect, what we would be receiving, and how to best care for the plants. They did a great job and have continued to watch, water and take care of the garden. All of our third- through fifth-grade students have worked with and explored the garden and are learning about the animals/insects that benefit from the garden. We laminated the Wildflower Plant Information and added it to the fence so students would know what was planted.

St. Peter Catholic School, Deland; Pierangeli Elswick

Thank you so much for this experience. My fourth graders are loving it! I infused the garden throughout the different subject areas. We used the garden to learn about area and perimeter; about the life cycle of a plant; and about different pollinators. Students sit and reflect in the garden and write in their journals.

Students learned about different Florida native plants and how beneficial they are to pollinators. They learned about different pollinators and identified them in our garden, and learned how environmental factors play a key role in the survival of both native plants and pollinators.

Program Coordinator Comments

Green Seasons Nursery has been an invaluable partner for our Seedlings for Schools grant program. I would like to express my gratitude for all they have done over the past five years to make sure schools around Florida receive quality plants for their wildflower gardens. Schools that received native wildflowers in the past expanded their gardens, while others were able to create an outdoor education site for the first time. Teachers were so excited to share knowledge with the students, often increasing their own knowledge about Florida’s native ecology. It is such an honor to step into the role of managing a program that has made such an impact.

Acknowledgments

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