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of Wake Forest University

Fall
2009

Gardener's

JOURNAL

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The Cedars of Reynolda

by Preston Stockton, RGWFU manager

I don't think I will ever forget the morning of January 21, 1985. It was minus eight degrees Fahrenheit. The greenhouse had a layer of ice so thick on the inside of the glass that you needed an ice scraper to see outside. The boilers were running full speed, and yet the offices were barely forty degrees. That morning set a new record low for this area. Many will remember that the East Coast was so cold that Ronald Reagan's second inauguration was moved inside to the Capitol Rotunda, the first time in history. It was a tough winter for our landscape plants.

Later that spring and summer, the results of that cold night were very evident. I stood on the front lawn of Reynolda House Museum of American Art with Nick Bragg, the executive director at the time, looking at the beautiful cedars that framed the house. One was obviously dead, and several had dying leaders. We hated the thought of removing these

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Snakes in the Garden

by Diane Wise, RGWFU head horticulturist

“Aaargh!” The scream could be heard all over the Gardens. It sounded as if it came from somewhere near the Lion's Head Fountain. I took off running in that direction and arrived at about the same time as Preston did. A visitor was standing under the tea house with the most incredible look of horror on her face. As I drew closer, I could see why. There, right in front of the woman's face, was a very large and very black snake, dangling by its tail from the arbor. Now I know we've all been taught that snakes are just as frightened of us as we are of them, but I don't think our guest believed it. As the poor snake disappeared into one of the columns supporting the arbor, the woman continued to tremble in fear. Her husband tried to talk her through the encounter; I explained that the snake was just sunning, was gone, and was harmless; and she still couldn't move. Finally, after about five minutes, the woman hurried from the garden, probably never to return. I'm sorry she had that experience. We are so accustomed to seeing snakes at the Gardens that a reaction like our visitor's is always a surprise to me. Maybe she suffers from ophidiophobia, from the Greek words ophis, meaning snake and phobia meaning fear of. Then again, maybe she just doesn't know enough about snakes to appreciate their contributions to the natural world and, in particular, to our gardens. If the latter is the case,

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Snakes in the Garden

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this article would serve as a valuable education to her.

Snakes in General

Snakes are cold-blooded and must move from a warm to a cool spot in order to regulate their body temperature. They prefer sunny areas with woodpiles and other debris that can provide a shaded hiding place. Snakes must have heat in order to digest their food, so they particularly like large rocks, broad stretches of concrete, and, as I know firsthand from the formal garden, slate paths. In our climate, the snake spends the winter hibernating in a den, called a hibernacula, but will awaken on very warm days to bask in the sun. In the early spring here at Reynolda, if the day is bright and sunny, we can usually see a twisted, knotted, mass of snakes in the window of the pump-house adjoining the outside swimming pool in the woods. Although not generally territorial, the snake does remain faithful to its hibernacula and reuses the site from year to year, sometimes sharing it with other snakes. The snake finds its prey by sight and scent. It has an excellent sense of smell, thanks to its forked tongue, which carries scent to the Jacobson's organ in the roof of its mouth. Since the snake doesn't have a middle ear, it can't hear very well; consequently, the old saying that one should always speak loudly in the woods to scare off snakes doesn't work very well. You'd be better off if you stomp your feet, as the snake detects movement through vibrations.

North Carolina's Snakes

North Carolina has thirty-seven species of native snakes, six of which are venomous. Notice that I said venomous, rather than poisonous; venom is injected, while poison is ingested. Only three species of venomous snakes are found in the Piedmont; all of them are pit vipers: the *Agkistrodon contortrix* or Copperhead; the *Agkistrodon piscivorous* or Cottonmouth; and the *Crotalus horridus* or Timber Rattler, sometimes called the Canebrake

Rattler. I guess that these three particular species account for most people's fear of snakes, and, to be sure, their bites can be very dangerous. But according to the United States Food and Drug Administration, although 8,000 people receive venomous snake bites in the U.S. each year, only nine to fifteen victims (.2%) die. The majority of the fatalities received no first aid or medical treatment. The vast majority of the bites, about 80%, occurred when the individual was trying to handle or kill a snake. In our state, only two people have died of snake bites since 1970, per N.C. health records. (Actually, snake venom may have a positive side. Currently, the FDA is conducting fast-track clinical trials to test the therapeutic value of a venom-derived product called ancrod, which dissolves blood clots; it is believed that ancrod could be useful in treating ischemic stroke.)

It really is true—snakes are just as frightened of you as you are of them, probably more so. And if you simply leave them alone, they'll leave you alone. Should you encounter a venomous snake, slowly back away from it. If you can't back away and must walk around it, give it at least six feet of space. In many experts' opinions and ours here at Reynolda, living with venomous snakes is really no different from living with hornets, wasps, or yellow jackets. If you find a hornet's nest, you don't disturb it; the same with finding a snake. To keep yourself and your loved ones safe, please look at the website www.herpsofnc.org. It is terrific and will help you identify our snakes, both venomous and non-venomous. As they say—a picture speaks a thousand words.

The snake you will most likely encounter in your garden and around your home is the black snake, a creature that is very beneficial to the environment. Did you know that there is no *one* black snake? The term black snake is used to identify three different non-venomous snakes, commonly the Black Rat Snake, the Northern Black Racer, and, sometimes, the Eastern Kingsnake. All three are very valuable to our landscapes and should be encouraged to take up residence in our gardens. Why? Because their main diet consists of rodents. That's right—rodents, those ravenous little creatures that destroy all of our hard work; rats,

mice, voles, moles—you name it, they eat it. I recently saw an episode of the television program, *Nature*, that focused on biologists' attempts to reintroduce rat-eating snakes to some villages in Vietnam in an effort to protect harvested grain. A single Black Rat Snake can eat four dozen rats a year; considering that one pair of rats can produce ninety offspring in the same period...well, you get the picture. Then factor in the rats' offsprings' offspring. Now you see why we love our black snakes!

Here is a brief description of each one of the black snakes; the website mentioned has excellent pictures.

***Elaphe obsoleta obsoleta*, Black Rat Snake**

The Black Rat Snake is the most common black snake in our area. Shy and docile, it averages forty-two to seventy-two inches long, with the record a whopping 101 inches! This snake has a powerful, slender body about two inches in diameter. The skin is a dull black because the scales are slightly keeled; that is, they have a raised ridge along the middle of each scale, and usually a bit of white shows between them. The belly is whitish near the head and becomes mottled, with a mix of white and black markings, towards the tail. The Black Rat Snake lives in forests, fields, farmlands, neighborhoods, and in old buildings. It is an excellent climber and can easily make its way up the side of a tree by holding onto the bark with its belly scales. This is the snake often seen in barns, stretched out on the rafters. They do no damage to property, as they only use existing holes and entryways. It is a constrictor and squeezes its prey to death. The Black Rat Snake lives on rats (big surprise), mice, voles, moles, shrews, birds, and birds' eggs. It typically freezes when confronted by a person and will remain motionless until the danger is past. If provoked, it will coil its body into kinks and vibrate its tail in dead leaves, to simulate a rattle, and release a foul-smelling musk from a gland near its tail. It will bite only if pushed. If you have a Black Rat Snake in your garden, you have rodents; but you'd have a lot more without it. There is a very large Black Rat Snake living in the Pink and White Garden. He has been there since I

arrived at Reynolda in 1998, and I see him at least once a week. He surprised Tony Ma'luf, one of our volunteers, a couple of years ago when Tony was weeding around the tea house. Tony handled the incident with remarkable aplomb and dubbed him Old Henry. The name stuck.

***Coluber constrictor constrictor*, Northern Black Racer**

The Northern Black Racer is also very common in the Piedmont and is known for its speed. It is similar to the Black Rat Snake in length, about thirty-six to sixty-six inches, but it is usually more slender. The body is solid black and shiny because the scales are smooth. There is a small whitish patch under the chin and along the throat. The Racer has a bluish gray belly, rather than the white belly of the Rat Snake, and enjoys the same habitat. This snake likes to lie in open areas and bask in the sun, and I have seen one many times on the slate path in the formal garden. The Black Racer chases its prey down and eats it alive. Unlike most snakes, the Racer has excellent vision and can often be seen hunting with its head raised above the ground. It eats mice, voles, moles, shrews, insects, and lizards. This normally passive snake will defend itself if threatened. When cornered, the Racer will coil, rattle its tail as a warning, release a spray of musk, and lunge at the intruder repeatedly.

***Lapropeltis getula*, Eastern Kingsnake**

While not completely black, the Eastern Kingsnake is often referred to as a black snake. Almost as common as the Rat Snake and the Racer, the Kingsnake is stout and measures anywhere from thirty-two to seventy-two inches in length. It has a black back with a chain-like pattern of thin, white or yellow bands. The belly has white or yellow patches on a black background. The Kingsnake has the same habitat as the Rat Snake and the Racer, and it can often be found in woodpiles, mulch piles, under shrubs, and in tall grass. This is a very strong constrictor that just loves rodents, the bigger the better. The Kingsnake is also a

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The Best Peppers of the Season

by **Michelle Hawks**,
RGWFWU horticulturist



Growing peppers can be a very exciting and fulfilling process. You may remember that growing peppers used to mean growing green bell peppers and not much else, but now there are so many types and colors of peppers available on the market that it makes it almost impossible to choose.

There are two main types of garden peppers, sweet and hot. Sweet peppers offer a palette of culinary and visual pizzazz. Imagine a pepper plant with fruit that can be green, orange, red, gold, lime, or even purple. Combine this broad color spectrum with a crunchy texture and mellow, sweet taste, endless culinary uses, ease of growth, and compact plant habit, and you've got a versatile sweet pepper. Even the most common variety, a green bell such as California Wonder, provides a visual delight because the shiny, green fruits develop further to brilliant red when left on the plant to reach full maturity. The walls of the fruit thicken as it reaches its peak of maturation, and the sweetness increases. Others in this category are pimiento, sweet banana, sweet cherry, and sweet wax types. If it's hot peppers you're after, look for habanero, jalapeno, cayenne, and serrano. Hot peppers are usually smaller and thinner than sweet peppers and come in shades of green, yellow, and red, and even white. The heat factor increases as the fruit of hot varieties matures.

This Season's Best Peppers

Some of my most precious childhood memories are of my mom preparing stuffed peppers and of the two of us picking peppers in the garden and eating them right there. I still till and plant her garden every Mother's Day. The first thing she says to me is, "Are you going to plant any peppers?" And of course I always do. When I thought about growing peppers

in the garden at Reynolda, I knew I wanted a variety, and a variety I got, as you can see from the list below.

Fish

An heirloom variety used to flavor fish and shellfish. It has wonderful mottled foliage and is a good ornamental. The small fruits are very hot.

Ladybug

I chose this one because I hoped the fruit would be as cute as ladybugs, and it is. Although it's a little hotter than I like, it has grown and produced wonderfully well.

Lipstick

Again, I chose this pepper for the name. It's sweet and delicious, raw or cooked.

Prairie Fire

This one caught my attention because it was described as a good container plant, and I'm always on the lookout for plants that grow in containers; however, I found that it grew better in the garden than in a container. The tiny fruits are truly firey.

Black Pearl

This is one of Preston's favorites. She grows it as an ornamental—it's way too hot to eat. The leaves and fruit are almost black in color.

Riot

Spiky fruits in various stages cover the leaves and form a low-growing mound. Hot.

Rooster Spur

This is another heirloom with an unusual name. Who wouldn't want a pepper by this name? It bears prolifically, but the peppers are too hot for most people, even those who love very hot peppers.

Sunray

I love all peppers, but Sunray was my favorite. My grandmother always grew yellow peppers because she loved the sweetness of them, and I've carried on the tradition.

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Snakes in the Garden

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very valuable predator of other snakes, including Copperheads, Cottonmouths, and Rattlesnakes, as it is immune to the venom of the pit viper. It is very docile and will only bite if pushed too far. First, though, the Kingsnake will rattle its tail and attempt to cover you with musk.

Snake Bites

If you do get bitten by one of the above mentioned black snakes or any snake, for that matter, there are a couple of things you need to know. A non-venomous snake has many tiny teeth, which will make superficial cuts similar to briar scratches, and the bite will be in the shape of a horseshoe. Clean the area well with soap and water and wipe it with peroxide. **Always** check with your doctor. Even if the snake is non-venomous, you might need a tetanus shot. If only one or two puncture wounds are present, or if you are not sure the snake is non-venomous, go to your doctor immediately. Unlike venomous snakes, most non-venomous snakes cannot bite through clothing; so long sleeves and long pants can provide some protection for you as you garden.

Snake Control

There are two forms of snake control—lethal and nonlethal. The difference is that nonlethal measures can be taken at any time, while lethal measures can only be taken when a snake is seen. As I've said, snakes are a sign of rodents, and I don't think it is very realistic to think you can completely shut out both from your surroundings. However, you can discourage snakes from taking up residence in your yard and garden by eliminating their food supply and cover.

First, quit feeding the rodents. Store all grain, pet food, and bird seed in rodent- or insect-proof containers. Do not leave pet food outside; remove it as soon as your pet has eaten. Keep in mind that a bird feeder will attract mice and rats—by choosing to feed birds, you are also accepting the presence of rodents and their predators. Make sure your

garbage cans have tight lids. Remove any food wrappers, cups, or other litter that might be thrown into your yard. Harvest your vegetable garden daily; there is nothing like a buffet of fresh veggies to the hungry rat. Reduce the depth of mulch around trees and shrubs to about two to three inches to discourage small animals from hiding there.

Next, concentrate on eliminating a snake's hiding places. Keep your grass mowed; long grass is perfect cover for a snake. Open areas make a snake vulnerable to its own natural predators, like hawks and owls. Try not to plant right next to your house's foundation, since shrubs provide a safe place for a snake to wait for its next meal, as well as a way to travel from one place to another. Store lumber and firewood away from your home and garden; eliminate piles of rocks; and remove overturned flowerpots. Close cracks and crevices in buildings and around pipes and utility connections with one-fourth inch hardware cloth, mortar, or sheet metal. Do not leave your garage door or screen door open.

For many years, sulfur, lime, and mothballs have been recommended as snake repellents. Studies conducted by ophiologists (those who study snakes) prove them worthless. If you simply can't abide the thought of snakes in your garden, you might want to install a snake fence. This is a very expensive solution and is only practical for a small area. The fence should be constructed of one-fourth inch hardware cloth to a height of three feet. The bottom should be buried at least one foot deep into the ground with the bottom edge bent outward into an L-shaped shelf that sticks out at a ninety degree angle. Supporting stakes must be inside the fence, and the gate must fit tightly. Remember to remove tall vegetation around the fence. You will also need to close any tunnels that pass under the fence, as a snake can travel through them.

The easiest way to deal with snakes, though, is to learn to live with them. If you see them often enough, as we do at Reynolda Gardens, they become a fascinating part of the landscape. Trust me, you'll begin to appreciate their contributions to our natural world and come to value their presence. 🍀

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THE EARLY SUMMER GARDEN

Highlights and Lowlights of the 2009 Vegetable Garden

by **John Kiger**, *RGWFWU assistant manager*

What a year it's been for gardening! It never fails: with every growing season there seems to be a weather anomaly of some sort. Quite often you see someone on the news talking about a crop failure due to weather conditions, saying that it's been too cold, too wet, or too dry, and that farmers' losses will be passed on to the consumer in the form of higher prices. I would like to hear, just once in my lifetime, that this was the perfect growing season, and everything planted produced wonderfully. I don't think I'll ever hear those words. Spring comes with high anticipation that everything you plant will grow from that fragile seed or seedling and produce abundantly. Oh, how high anticipation seems to always turn to slight disappointment.

The Tomato Challenge

This year, as in years past, I planted many things in the garden: green beans, lettuce, okra, squash, zucchini, onions, and tomatoes. In 2007 and 2008, the green beans could very well be considered rabbit food, and on some signs I labeled them as such, along with the proper



name. This was a better year for most of the garden, but tomatoes were the disappointment. I planted them in mid-April, about a week after our annual tomato plant sale. All varieties I planted carried a maturation date of eighty to ninety-five days, which means that, if they are planted in mid-April, we should be enjoying them about the time I take a vacation in mid-July. I always look forward to taking some with me when I travel to the beach. At this writing, it is the first week of August, and we are just now seeing the fruits ripen. Why so long, you ask? Simply put, the weather. You will recall that our spring was very wet and cool. Tomatoes need heat and moisture, but the moisture we received in early spring almost drowned them. At one point, water was standing four inches deep between the rows. All crops need water to thrive, but too much is just as bad as not enough. I was worried that we were not going to see a single tomato this year. Preston was gracious enough to take cuttings from the original plants and root them in the greenhouse. After they rooted in, I planted them in the garden. Hopefully we will have a late crop.

I always ask myself, Is there a better way to grow tomatoes? I have built cages from two-by-two boards and chickenwire, with the hope that vines will grow and lay on top; for the most part, this method was successful, although somewhat cumbersome to set up. Some people use a five gallon bucket and grow the plants upside down. It's a very simple process. Using a five gallon bucket, cut three holes in the side near the base, fill with potting soil, place a plant in each hole, and hang your new planter. There is a product on the market called Topsy Turvy that does the same thing. To my good fortune, a friend gave me one to use at home. I thought that, if it worked well, I would implement it at Reynolda Gardens. Following the manufacturer's instructions, I placed one tomato plant in the center, filled the planter with potting soil, placed the lid, hung the planter in a sunny location, and watered it. It was interesting to watch it grow, and, to my surprise, it caught the attention of my grandchildren. As

the tomato plant grew, the stems turned upward toward the sun. It was extremely easy to take care of. The best part? No weeding around the plant. I fed the plant three times during its life cycle, using Miracle-Gro twice. The last feeding was a granular fertilizer 10-10-10, sprinkled in from the top. Watering was an everyday chore. The soil is housed in a nylon bag, hanging seven feet off the ground, in direct sunlight, and it dried out quickly. I do recommend this product, and it did produce tomatoes; however, it should be placed near your house since it requires daily watering. Mine was forty feet away.

A Treat for the Birds

Even though some plants in the vegetable garden don't perform as well as you would like, there are those that are tried and true. Chard is a great example. I've grown this almost every year, mainly for its color and for the fact that, for whatever reason, rabbits, for the most part, leave it alone. Chard, *Beta vulgaris* var. *cicla* is sold under several names—Swiss chard, Silverbeet, and Bright Lights. Native to Sicily, chard remains a popular dish with Mediterranean cooks, but one doesn't have to be a Mediterranean cook to enjoy chard. The staff and garden volunteers enjoy this leafy vegetable in salads, steamed, or sautéed, but the main reason I grow this vegetable is for the goldfinches. They absolutely love it! I did a search on the internet about the diet of a finch and found such statements as this: "Their favorite food is thistle seed, but they also enjoy seeds from birches, alders, conifers, and other trees. They also eat seed from goldenrod, asters, burdock, dandelion, and chicory. They come to feeders for sunflower and thistle seed. Berries and insects are also part of their diet." I looked through a few sites, and not one that I saw mentioned the birds eating leafy greens; as you see above, seeds were the choice. I first noticed goldfinches on the chard a few years ago. As I



walked past one day, at least a dozen of them flew away from the chard. I walked over to inspect, thinking I was going to see some sort of insect on the chard that was attracting the birds, but there weren't any. I thought that, if there were insects, the birds had picked them clean. The next day they were back. Again, as I walked up, they flew off. I realized there weren't insects; the birds were eating the chard, actually pecking at the leaves and eating it. They ate nothing else in the garden, just chard. Ever since that day, I have grown chard every year, simply for the finches. Of course, they have to share it with the staff and volunteers.

As I end, I would like to mention three plants in the summer garden that should find their way to your vegetable garden at home next year.

Cucumber Diva

Michelle ordered the seed, and they are quite simply the best tasting cucumber I've ever eaten. Pick them when they are small or of medium length, generally five to seven inches. Very crispy. If picked small, there is no need to peel. Vlassic has nothing on these cucumbers.

Green Bean Yard Long Red Noodle

This one is new to me, but, when I saw it in the catalogue, I had to grow it. This heat tolerant plant produces a bean that is purplish red in color and grows to about twenty-two inches in length. The beans are sweet and tender and lose their color when cooked. Pick them when they are about the width of a pencil. They are climbers, so you'll need to provide a trellis for them.

Green Bean Rattlesnake Snap

I've mentioned these before. If you haven't tried them, you are truly missing a fantastic tasting bean. This sweet tasting bean doesn't even need to be cooked. It produces very heavily and climbs. Yes, you will need to trellis these as well. 🌱

Other

Mrs. Marcia T. Baker
 Gerri B. Brown
 Mrs. Toni Pegg Doub
 Bart Ganzert
 Dr. Eugene Heise
 Ms. Billye Keith Jones
 Mr. and Mrs. Pete Mayo
 Kay McKnight
 Mrs. Jean L. Merwin

Honoraria

David Bare
 By Audubon Garden Club
 Anne Radford Phillips

Mr. and Mrs. John D. Bassett
 Mr. and Mrs. Wyatt P. E. Bassett and Family
 Mr. and Mrs. H. Gregory Bray and Family
 Mr. and Mrs. James W. C. Broughton
 Mr. and Mrs. James Christian, Jr. and Family
 Mr. and Mrs. Mark Cordell and Family
 Mr. and Mrs. Huntley G. Davenport
 Mrs. Barbara King Davidian
 Mr. and Mrs. Robert W. Deaton and Family
 Mr. and Mrs. Marsden Bellamy deRossett, Jr.
 Mrs. Peggy Hooker Edwards
 Mr. and Mrs. Thomas P. Falatko and Family
 Mr. and Mrs. E. W. Fuller III
 Mr. and Mrs. William B. Glenn
 Mr. and Mrs. J. F. Goins III
 Mr. and Mrs. J. Murphy Gregg III
 Mr. and Mrs. Robert W. Grubbs, Jr.
 Dr. and Mrs. Charles W. Harris, Jr.
 Mrs. D. Ray Henley
 Mr. and Mrs. Gregory B. Hunter
 Mr. and Mrs. Fred W. London, Jr.
 Mr. and Mrs. Henry A. Miller
 Mr. and Mrs. Ernie A. Osborn and Family
 Mr. and Mrs. E. Ashton Poole and Family
 Mr. and Mrs. William M. Semans
 Mr. and Mrs. Alexander B. Smith
 Mr. and Mrs. David N. Stedman
 Mr. and Mrs. Alexander K. Turner
 Mr. and Mrs. Stuart F. Vaughn, Jr.
 Mr. and Mrs. Edwin L. Welch III and Family
 Mr. and Mrs. James G. Welsh, Jr.
 Mrs. Nancy G. White
 Mr. and Mrs. Steven W. White and Family
 Mr. and Mrs. W. Dunlop White III and Family
 Mr. and Mrs. J. Kelly Woodruff
 Mr. and Mrs. Louis E. Wooten III and Family
 By Mr. and Mrs. John D. Bassett IV and Family

CONTINUED ON FOLLOWING PAGE

Eileen Frost
By Summit School, Inc.

George Griswold
By Nancy S. Watkins

Ginger and Ben Hackley
By Nancy Oakes

Michelle Hawks
By Mrs. Laura W. Hearn

Reynolda Gardens Staff
By Anonymous

Preston Stockton
By Mrs. Laurie Whitaker

Don and Kelly White
By Ms. Enid White

Memoria
Pope Babcock
By Bill Eskridge

Rupert W. Bagby
By Mrs. Rupert W. Bagby

Dr. Robert Cordell
By Dr. and Mrs. John W.
Hammon

Ann S. Erdenberger
By Estella and John Surratt

William Hohman
By Jo Walker

Katherine K. Johnson
By Mr. John G. Johnson

Julie G. Lambeth
By Dr. William A. Lambeth

Drane McCall
By Sally and Steve Harper
Gail Lybrook and David Hobbs

CONTINUED ON FOLLOWING PAGE

The Water System at Reynolda, Part 2: Water from the Stream and Lake

by **Camilla Wilcox**, RGWFU curator of education

To review briefly, in “Water at Reynolda, Part 1: Pure Water,” I described the initial water system, which was centered on artesian wells. In the early phases of development of the estate, water from these wells was routed to an existing stream. From there, it flowed to the lake, which was under construction. Before long, a system was constructed to divert water from the stream, contain it in the Irrigation Basin, and pump it out as needed. Later, a separate waterline was added to pipe potable water directly from the wells to a reservoir at the residence. It took several years to bring all parts of this system into service. The complete article is available on the RGWFU website.

In 1916, some of the landscape plantings designed by Thomas Sears had already been installed, and more were planned. The residence was under construction, and farm operations were well underway. Over the next few years, new demands for water would emerge. An early structure would be given new uses, and a new system would be added.

Water for Irrigation

“Sprinkler water,” as it was defined on maps to differentiate it from “artesian water,” was pumped uphill from the Irrigation Basin in the woods. From there, it traveled through an

underground pipe across the front of the residence. Then, it flowed downhill to the village. Although this method provided enough water for the early years, it had become clear by the summer of 1916 that this configuration would not be sufficient for the multitude of planting activities that were underway. The photograph below, left shows a temporary lake water pumping system that was utilized that summer, presumably to help water trees and shrubs already planted near the residence.

By 1917, plans were underway for an upgrade to the irrigation system. Mrs. Reynolds already had Mr. Sears’ plans for the formal gardens near the greenhouse in hand. The gardens were to be planted in the spring, and a great deal of water would be needed for the hundreds of plants on the plan to survive. She wrote to Wiley and Wilson, Consulting Engineers*, in December.

I am trying to get the matter of the irrigation system adjusted as nearly as possible before leaving.... (Because of delays related to the war in Europe) it takes so long to get any material at present, I think we might begin at this time to see about getting whatever is needed for the pumping station at the irrigating pool ready for the spring.



The Irrigation Basin gained a secondary purpose and a new name in the late spring of 1918. With the addition of a diving board; a sliding board; picturesque benches; new, blue-painted concrete bottom and walls; and a gazebo-like structure on the roof of the old pumphouse, it became a swimming pool, much to the delight of the Reynolds children. In June, Dick wrote to his father, “It’s been



TEMPORARY IRRIGATION,
1916

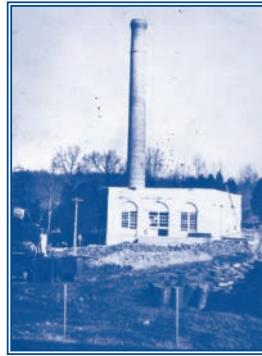
awful hot here. The pool is almost finished.” The name was changed, appearing on a Sears planting plan as the Freshwater Swimming Pool, but it retained the equipment and capacity to be used for its original purpose. A new irrigation pump arrived at about the same time the children began using it for recreation.

Water for Ice

When we think of the conveniences of modern life, the availability of ice does not come readily to mind, but ice was an important component of dairy operations. The dairy was described in “Reynolda Farms,” an article that appeared in the *Winston-Salem Sentinel* on July 7, 1917.

Large refrigerators are fitted separately for the care of the milk and for the storage of vegetables and fresh meats. A part of the refrigerating plant is an ice machine which provides a daily supply of ice for the Reynolda community at no additional cost in operation.

But by 1919, a need arose for more ice at the Farm Building than could be produced by this method. This meant that more water would be needed, but where would it come from? In the spring of 1919, Wiley and Wilson engineers wrote to Mrs. Reynolds in answer to her inquiry concerning this problem. They proposed a plan for pumping water from the original Irrigation Basin to a small, underground reservoir located at a high point of the estate. From there, it would flow by gravity to a refrigeration unit in the residence and then tie in to the overflow pipes from the reservoir there before flowing on to the farm building. They noted that this would provide “an ample supply of branch water for the ice machines without the installation of additional machinery or mechanical equipment of any kind,” and that it would be “the coolest water available.” It was clear in the letter that they were brainstorming; they went on to suggest alternatives if that did not prove to be feasible.



Water for Steam

At the same time, another major need for water arose, seemingly unexpectedly, as reflected in correspondence from Wiley and Wilson. The engineers had been asked to consider

the idea of building a small steam plant in the village near the greenhouse to provide heat for the buildings clustered there. When they determined the capacity that would be required and the size of the boiler and the height of the smokestack that would be needed, they advised that it be placed below the barn, in a two-story building dedicated to the purpose.

Because steam would travel to multiple buildings and over a long distance, the boilers would require a steady source of relatively clean water. According to estate electrician Shober Hendrix in a 1980 interview, water from the stream that fed the Irrigation Basin was utilized for making steam.

Then we had another system down at the old swimming pool, that pumped water to the steam plant through filters, heated it, and it went back and fed hot water to all the village. This was surface water (meaning not enclosed in a pipe) coming from the old artesian wells up there.

A water pipeline and steam pipes were added to the other utilities already concealed in tunnels under the road through the village and under Reynolda Road. The plant, with a 125 foot tall smokestack, was completed in 1920. All of the incoming water was not converted to steam; a reservoir and septic field behind the power plant were constructed to capture the effluent.

CONTINUED ON PAGE 10

Della Roberts
By Estella and John Surratt

Andrea Logan Rogers
By Jane Logan Rogers

Bonnie Vick Stone
By Barbara Kendrick

Cornelius Strittmatter
By Dr. Carol Cunningham and
Ms. Ouida Cunningham
Mrs. John H. Felts
Ms. Anna May Gillett
Ms. Marjorie T. Hoots
Mr. and Mrs. J. Massie Johnson
Mr. and Mrs. Edward T.
Mulvey, Jr.
Sarah Penry
Jo Walker
Ms. Georgia M. Wallace

Ainslie M. Taylor
By Estella and John Surratt

Gene Triplette
By Evergreen Garden Club

Restricted
Young Naturalist Scholarship
By Book Club Anon
JoAnn and Bryan Yates

Volunteers 2008-09

Volunteers assisted with educational programs, garden maintenance, and sales.

Bill Abbey
Teige Arnott
Marge Asel
Sandra Belmont
Kay Bergey
Toby Bost
Dorcas Brogdon
Robert Browne
Barbara Bryant
Linda Bryant
Dennis Burnette
Michael Carpenter
Jeffrey Cates
George Cleland IV
Bill Conner
Bill Crow
Phil Dickinson
Jean Dixon
Ann Dowell
Susan Fahrbach
Nate Fahrbach
Julia Fredericks
Tom Fredericks
Janet Frekko
Aidan Ganzert
Jocelyn Ganzert
Bill Gifford
Kathy Hafer
Janet Hano
Eugene Heise
Nelson Hernandez
Mary Ruth Howard
Sarah Jennings
Billye Keith Jones
Susan Jones
Janet Joyner
Ellen Kirby
Pat Lackey
Jed Macosko
Terry Maness
Susan Martin
Kay McKnight
Ellen Mincer
Nancy Moltman
Leon Monroe
Harvey Moser
Susan Moser
Evan Muday
Mary Newman
Dina Nieuwenhuis
Jim Nottke
Alice Parrish
Susan Pfefferkorn
Vianne Piper
Dillon Robertson

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The Water System at Reynolda, Part 2

CONTINUED FROM PAGE 9

More Water for Irrigation

As the gardens and plantings developed near Reynolda Road, it became clear that another, separate system would be necessary to serve this area. It is believed that this system was completed around 1920, but there are no known records of the construction. Again, we turn to Mr. Hendrix' recollections.

Then we had another system—a pumphouse on the lake pumped water up yonder to the corner of Reynolda and Coliseum Drive...

We pumped water out of the lake and it would come back with gravity for irrigation.

Three structures that comprised this system remain: the pumping station, a cistern, and a smaller structure next to the cistern that may have been designed to hold auxiliary pumps. Although the pumps must have been powerful and the piping extensive, the concept was simple. It was very similar to the method proposed earlier by Wiley and Wilson engineers, but on a larger scale. Water was drawn from the lake and pumped to a cistern at the highest point of the estate; from there, it flowed through underground pipes by gravity. A pipeline was laid parallel to Reynolda Road. Water was diverted to several outlets in the formal gardens. The remainder was captured and combined with overflow from the residence reservoir near the greenhouse before continuing its progress through the village. The entire water system was complete. Reynolda was all set to grow and bloom.

But, unbeknownst to its owner and other inhabitants, the heady days of Reynolda were drawing to a close. Over the next few years, projects continued, gardens became established, and farm operations grew, but, increasingly, Mrs. Reynolds' attention was focused on her children's activities, community service, and, finally, to her marriage to J. Edward Johnston and the birth of two more children. When she died in 1924 at the age of forty-four, new projects ceased and did not

resume until her daughter Mary Reynolds Babcock acquired the estate ten years later.

The multifaceted water system continued to operate for some time, but eventually it all fell into disuse. The exact dates of the demise of each component of the stream and lake water systems, and other related structures, are unknown. The smokestack at the steam plant, which had once dominated the view of the village from afar, was torn down; pumps ceased to draw water from the stream and lake; old irrigation lines disintegrated or were cut off; and the Freshwater Swimming Pool was filled in with dirt. The sand dam, a key gatekeeper at the door of the system, was overwhelmed by silt and sediment; a glance at the Lake Katharine Wetland tells the story of its failure.

During your next walk around Reynolda, observe the structural remains of the system closely and spend a little time imagining the early days and dreams of Reynolda, when this odd collection of buildings was the pride of their owner, part of a private water system that was nearly unthinkable at that time and in this place. The days of unreliable wells, stagnant water troughs, and creaky water tanks were over. A new day had come. And it would go on through years of happy family life and generations of grandchildren, forever. 🌱

**Wiley and Wilson, Consulting Engineers, then working out of offices in Lynchburg, Va., were called upon numerous times on different projects. They designed the original refrigeration unit for the Farm Building in 1913. Their letters to Mrs. Reynolds concerning the water system helped to document how the system evolved and operated. Founded in 1902, the company is still in business.*

Special thanks to Barbara B. Millhouse, Sherold Hollingsworth, Todd Crumley, and Richard Murdoch for their assistance with this research.

Problems with Stream and Lake Water

The stream and lake were the obvious sources for unlimited water, but there were several problems associated with it. Let's go back and list the problems and look at the solutions.

Water extracted from the lake would have to be clear, with a minimum of silt and sediment that would make pumps ineffective.

Fortunately, at least part of this problem was addressed when the lake was built, in the form of a small, specialized dam. A stream entered the lakebed on the northeast side, near the Irrigation Basin, after flowing through pastures on property that is now part of Old Town Club. A sand dam, which is a type of subsurface dam, appears on engineering drawings for the lake at this location. Designed to allow water to flow where it is needed while controlling alluvium, sand dams typically incorporate a canalized stream, like the one shown in the photograph below, which is believed to have been taken between 1917 and 1920. Because this precaution had already been taken, the water entering the lake at this point would have been relatively free of silt and sediment.

The stream between the lake and the Irrigation Basin/Freshwater Swimming Pool was dammed in the early 1920s, creating a new pond between the pool and the lake. A drain close to the residence emptied at this location, and this pond would have helped clean and contain runoff before it could enter the lake and foul the intake pipe for the pumping station nearby.



It would have to be determined whether to pump directly to the locations where it was needed or to a central location for distribution. With the lake as epicenter, destinations for the water were spread out like spokes on a wheel. There were the formal gardens near the greenhouse; cottage gardens in the village; new plantings around the Farm Building and elsewhere in the village; and "truck" (large-scale food-producing) gardens in the bottomland below the barn. Just to provide for the many planting locations would require a series of pumps and myriad pipes, if piped to multiple locations from the lake. Because all of these locations were near Reynolda Road, it would make more sense to pump water to a central location above them all and let it flow downhill to serve each area.

Water for purposes other than drinking would have to be completely separate from the potable water system. It could not be compromised or contaminated by mixing or backflow. Since Wiley and Wilson suggested using "branch water" for making ice, it can be assumed that the ice was used for an operation, such as ice-cream making, where it was not to be consumed.

Even though lake water was not pure, it had to be free of debris and gross contaminants. The top of the cistern was closed, so any water inside would be protected from contamination; it would not have collected rainwater, as the name cistern implies.

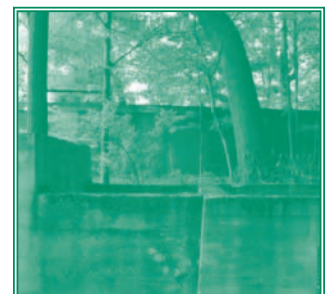
Pumping stations and cisterns or reservoirs would have to fit into landscape as much as possible. The reservoir for the residence was underground. The pumphouse associated with it was built into the side of a hill with a rustic wooden shelter on top. The new pumping station was tucked into the bank, with only the rooftop visible. It is on the edge of the nature trail now, but this trail had not been developed at that time. The cistern, located today at the corner of Coliseum Drive and Reynolda Road, was largely hidden in the woods. Coliseum Drive had not been built. 🍷

—C.W.

Larry Rudel
MacGregor Ruffin
Jim Schirillo
Kathy Schlosser
Judy Scurry
David Shuford
Kaitie Shuping
Miles Silman
Sara Edi Simmons-Fife
Nick Sinopoli
Roberta Smith
Janet Snow
Laura Soito
Jack Stack
Phyllis Stewart
Sid Teague
Triad Orchid Society
Candi Turner
Amy Verner
Jo Walker
Becky Wheeler
Harper Winocor
Winston-Salem Rose Society
Bill Wise
Barb Wrappe



PUMPING STATION (ABOVE)
AND CISTERN



The Cedars of Reynolda

CONTINUED FROM PAGE 1

significant trees. After much discussion, thankfully Nick opted to remove the dead one and trim out the leaders on the rest. Today, all of these trees continue to thrive, having developed new leaders.

Thomas Sears, the landscape architect who designed Reynolda, specified cedar of Lebanon, *Cedrus libani* and deodar cedar, *C. deodara* on the 1916 “Planting Around the Bungalow” plan. There were five cedars of Lebanon—four on the right side of the house and one on the left. Beside the one on the left, he placed one deodar cedar. The lawn was a perfect site for these beautiful specimen trees. They are very large conifers and need plenty of space to grow to their full glory.

Today there are four cedars of Lebanon, two deodar cedars, and one Atlas cedar, *C. atlantica*, in front of Reynolda House. They are all very large, old trees, with the exception of the deodar that we planted in 1985 to replace the one that was removed. Three trees are in their original places, as specified on Sear’s plan. The others were planted, I suspect, when the drive to the front of the house was removed in 1936 and replaced with a formal garden. I think the choice of the Atlas cedar is interesting and can’t help but wonder if it was a mistake. All three of these cedars look very much alike up close, and many taxonomists consider the Atlas cedar to be a subspecies of the cedar of Lebanon. From a distance, it is easy to see a bluer foliage and different form on the Atlas cedar.

The Genus *Cedrus*

There are many plants that we call cedars: our native Eastern red cedar, *Juniperus virginiana*; Japanese cedar, *Cryptomeria japonica*; and white cedar, *Thuja occidentalis*. But only plants in the *Cedrus* genus are true cedars. The three grown at Reynolda are the ones most commonly grown in the United States. Unlike most conifers, they are not very hardy. They grow only to Zone 7; a few varieties

are hardy to Zone 6. This explains the cold damage to the Reynolda cedars in 1985.

Cedrus is a genus of coniferous trees in the Pinaceae family. They are native to the mountains of the western Himalaya and Mediterranean regions. Cedars can grow up to one hundred feet tall, with fragrant, resinous wood. The needles vary in length and color, depending on the species. The color varies from bright grass green, to dark green, to a glaucous blue-green, depending on the thickness of the white wax layer that protects the leaves from desiccation.

Cedars produce pollen cones in late summer and pollinate the female cones in September or October, which is peculiar to the genus *Cedrus* among the conifers. Cones require two to three years to mature. The cones are initially tiny and pale green. The second year the cone reaches its full size and has a characteristic violet-purple color. In the third season, it turns into a rich brown and scatters its seeds, which are small and winged. The cones are borne upright on the upper side of the branches. Often the top part of the cone will break off and look very much like a wooden rose. When I was growing up, I would pick these up under our neighbor’s deodar cedar and put them on the windowsill in my room. These partial cones are referred to as “cedar roses” and are often sold in craft stores.

Origins and Historical Uses

Cedrus libani, Cedar of Lebanon

This tree is the most famous of the cedars and is native to the mountains of the Mediterranean region in Lebanon, western Syria, and south central Turkey. It has long been the national emblem of Lebanon and is stylized on the Lebanese flag. As a result of long exploitation, very little of the original stands remain of Lebanon’s once majestic and glorious cedar forests. Some of the older trees that are left are thought to be 1,000 years old. Today there is an active program to preserve and reforest several national reserves. In Turkey 74,000 acres are planted annually with cedars of Lebanon.

POLLEN CONES



FIRST YEAR CONES



SECOND YEAR CONES





ATLAS CEDAR



The importance of the cedar of Lebanon to various civilizations is conveyed through its uses. The Egyptians used its resin to mummify their dead and thus called it the “life of death.” Cedar sawdust was found in the tombs of the Pharaohs as well. The Egyptians burned it with their offerings and in their ceremonies. Jewish priests were ordered by Moses to use the bark of the cedar of Lebanon in circumcision and the treatment of leprosy.

Desirable qualities of the cedar wood are its beautiful color, hardness, fragrance, and resistance to insects, humidity, and temperature. The Phoenicians, Egyptians, Greeks, and many others used it extensively for lumber. The Phoenicians built their trade ships and military fleets from cedar wood, as well as the roofs of their temples, houses, and doorsills. Kings of neighboring and distant countries asked for this wood for building. The most famous structures using cedar of Lebanon wood are the Temple of Jerusalem and David’s and Solomon’s palaces. It was also used in the temples and furniture works of the Assyrians and Babylonians.

The cedar of Lebanon grows to 125 feet in the wild, less in cultivation, with great spreading branches and dark green foliage. The needles are three-fourth to one and one-fourth inches long. The cones are three to five inches long and half as wide.

In 1902, the Arnold Arboretum sent a plant collector to obtain seed in the coldest area that *C. libani* is known to grow, the Cilician Taurus in south central Turkey. Trees grown from this stock proved decidedly hardier than trees grown previously in the U.S. Today this strain is grown as far north as southern New England.

Cedrus atlantica, Atlas Cedar

C. atlantica is native to the Atlas Mountains of Algeria and Morocco and is the hardiest of the genus. In its native range, it grows to 120 feet but only about half that tall in cultivation. The needles are one-half to one inch

long and stouter than those of *C. libani*, and it has a more open form. The cones are up to three inches long. This tree varies considerably when raised from seed. The color ranges from a medium green to silvery blue. Two popular varieties planted today are the blue Atlas cedar, *C. a. glauca* (there is a beautiful row of them near the May Dell at Salem College) and the weeping blue Atlas cedar, *C. a. pendula*, a pendulous form that is easily trained into different shapes. The one in my yard at home is starting to look like a daddy-long-legs!

Cedrus deodara, Deodar Cedar

C. deodara is the most popular landscaping cedar in the United States. It is native to the western Himalayas in eastern Afghanistan, northern Pakistan, and north central India. It is the national tree of Pakistan. The name is derived from the Sanskrit word devadāru, meaning wood of the gods, a compound of deva (god) and dāru (wood). Ancient Indian sages and their families who were devoted to the Hindu god Shiva often lived in the deodar forests. Historically it was used to construct religious temples and in landscaping. In India during the British colonial period, deodar wood was used extensively for construction of barracks, public buildings, bridges, canals, and railway cars. It has now been logged out in much of its former range. The deodar cedar grows up to 150 feet where it is native but normally attains only fifty feet in cultivation. It is the least hardy of the cedars normally growing in Zones 7 to 9. There are two cultivars, Shalimar and Kashmir, which are hardy to Zone 6. The needles are two inches long and are a blue-green color. The cones are three to five inches long. 🌲

The Late Show

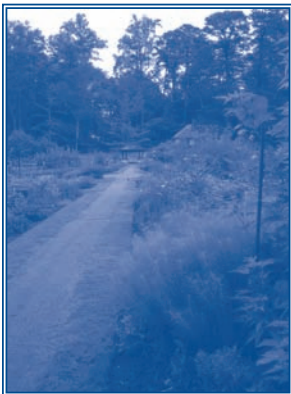
by David Bare, RGWFU greenhouse manager

As much as we gardeners look forward to spring, there is no argument in my mind that the autumn is the finest season in the Piedmont garden. While spring here can often jump from pleasant seventies to scorching nineties overnight, the autumn here is generally long and mellow. There is a particular flavor to the autumn garden. Light assumes a specific angle. Mornings are laden with heavy dew. In the riotous exuberance of the garden's last days, there is a tinge of melancholy in knowing it will all soon be over.

Color, of course, is the autumn's calling card. The pastel pinks and lavenders of the spring flowers are a faded memory, replaced with the deep jewel tones of the autumn. Plants we have waited all year to blossom are now full upon us. It seems all their energy was stored for one spectacular, fleeting, autumn moment.

In the long border at Reynolda Gardens, a mixture of hardy and tender perennials attempts a continuous display. We love many of these tender perennials because of their continuous flowering throughout even the hottest of the summer weather, but some only flower during the waning days of autumn. A few flower so late that an early frost might literally "nip them in the bud." But most begin to flower by late August or September, and, if we miss what seems to be the customary second week in October light frost, they will carry through to the end of October.

Many of these are salvias, and, though we have been going through the process of growing, propagating, and protecting these plants in the greenhouse over the winter for many years now, every effort seems worth it for those two weeks in October when all are at the peak of their glory. These are not plants for the timid. They are often gigantic in height or width, and their numerous flowers often have eye-popping colors. They range from the deep, velvety purple of Purple Majesty (*Salvia guaranitica* x *S. gesneriiflora* Tequila) through deep indigo in Anthony Parker (*S. leucantha* Midnight x *S. elegans*), to creamy, butter yellow in the towering forsythia sage, *S. maderensis*.



Orange is the autumn's signal color, and few flowers are more pumpkin-toned than the fuzzy, tubular flower spikes of lion's tail or lion's ear, *Leonotis leonurus*. Ball-shaped clusters of

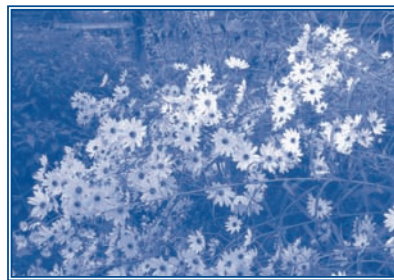
buds are carried in whorls around each stem. It is a wonderful companion for anything blue, purple, or yellow.

Much has been written about angel's trumpets, *Brugmansia* sp. in these pages. These are among the signature plants at Reynolda. Several folks rush to the spring plant sale just to be sure they score a few angel's trumpets for their gardens. As the cool nights and the waning light

of autumn begin, the brugmansias hit their stride. Often they seem to be dripping foot long, dangling funnels in pale white, yellow, gold, or pink. The best of these is called Supernova and has flowers that are well over a foot long. In the evening these blossoms are sweetly fragrant and attract bat-like hawk moths.



Tender perennials are not the only stars of the autumn border. Several fine, hardy perennials hold their flowers to the last minute. One that will not be denied is the swamp sunflower, *Helianthus angustifolius*. By the time it begins to flower in October, the stems have reached eight to nine feet. They are crowned with clusters of sulfurous orange, daisylike ray flowers. The name swamp sunflower would lead you to believe that this plant requires copious amounts of water, but it does fine with average moisture, even



though it tends toward swampy areas in its native habitat. Like goldenrod, *Solidago* sp. this late bloomer has a tendency to get rust fungus that can make the lower leaves dry up and shrivel off. We never worry about this

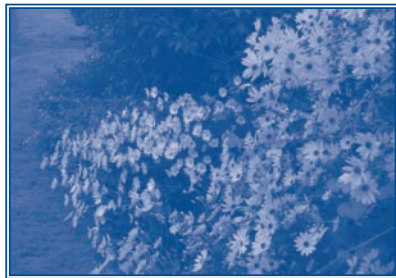
because the plants' "feet" are always covered by lower growing plants, which includes just about everything else we grow.

Young Naturalists, June 2009

Purple muhly grass, *Muhlenbergia capillaris* has already been much discussed in this newsletter and for good reason; it is a favorite plant in the garden. Sitting quietly in a grassy mound all summer, it begins to put on a show around September, when the panicles erupt like sparklers. They are an off color, sort of purple-pink, and create great misty clouds in the garden. Their finest attribute is the way they capture dew on each tiny seed head. When backlit, they appear to be made of glass. Purple muhly changes its aspect with the angle of the sun, each change of light creating a new quality. It is one of the most fascinating plants in the garden.

I would be remiss to speak of the autumn garden without mentioning the chrysanthemum. Long before planting chrysanthemums meant going to the big box store to buy little shaved balls of flowers in perfectly mounded masses that you can bounce a quarter off of, we had hardy perennial mums that came back every year. Historically here at Reynolda, they were massed among the peonies and anemones in the greenhouse garden, where they have returned in the last few years. In the long border we have Sheffield Pink, a low

growing chrysanthemum that spreads nicely to form great masses up front. The daisylike flowers are actually more of an apricot than pink, despite the name. It is tough and reliable and has been here longer than I have and probably always will be.



One autumn morning you wake up and the landscape is silvered with frost. It is always both a beautiful and horrible day, for as the sun melts the frost away, stretched and frozen cells collapse and there is little left but soggy black. It does not really close the garden year; there is still much to be done, as always. But it marks a point that will not return until next year and the beginning of a long period of anticipation. 🍷



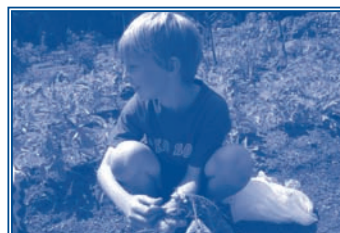
LOOKING CLOSELY AT THE CREATURES FOUND UNDER THE ROCKS IN A SHALLOW STREAM

MAKING PESTO WITH FRESHLY HARVESTED BASIL AND GARLIC



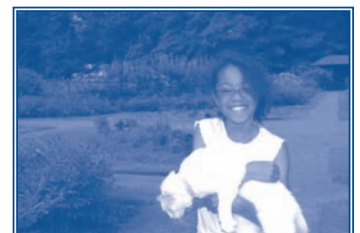
FINISHED BLUEBIRD HOUSES, READY FOR THE FRIDAY SHOW

PLANTING THE CHILDREN'S GARDEN



HARVESTING POTATOES AND ONIONS

HOLDING MILLIE, THE GARDEN CAT



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The Best Peppers of the Season

CONTINUED FROM PAGE 4

How to Grow Peppers

Peppers can be finicky at times and difficult to grow. They require a lengthy growing season with warm temperatures within a specific range to thrive. Sweet peppers can grow in a less than ideal climate, but the best varieties of hot peppers are usually from Mexico, China, or Thailand, and they may need a longer period of hot temperatures than can be provided here. Be sure to check the seed packet to see if your choice is suited to our climate.

Select a location in your garden that receives full sun. Prepare it by adding plenty of compost, manure, and a general fertilizer. Peppers enjoy a well-amended soil that contains plenty of organic matter, supplemented with a balanced fertilizer, such as 10-10-10. Pepper plants are well suited to growing in containers, so if you have very little space, consider some peppers in attractive pots on a balcony or patio.

Early spring is not the time to put your peppers in the garden. Wait until night-time temperatures consistently stay above fifty degrees, usually sometime between late May and early June. Add

mulch around the plants to keep down weeds and to retain moisture.

Peppers can be picked as soon as they are big enough, or you can leave them to change color and flavor gradually. Be sure to cut your peppers off cleanly. Do not pull them off; pepper plants are very fragile, and pulling may damage the stems. Pepper plants do not need any pruning other than this.

Be sure to switch over to a fertilizer that's high in phosphorus and potassium once fruit begins to set. One common mistake that many gardeners make is fertilizing with too much nitrogen, which results in a lovely, bushy plant but very few peppers.

Peppers are self-pollinators. Occasionally they will cross-pollinate, and the cross will show up in the genetics of the seed. It won't affect this year's plants, but if you plan to save seeds, don't plant hot and sweet peppers too close together. 🌱

