

SCAMGA April Meeting: Monday, 7/20/09 - 6:30 pm

The speaker is Stuart Bartholomaus. He is a Roane County Master Gardener and a graduate of the Tennessee Yards and Neighborhoods Homeowners' Workshop. He comes highly recommended by David Vandergriff.

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Submissions: If you have information, articles, CEU or volunteer opportunities you would like published in the SCAMGA newsletter, please send to Alison Stokes at P.O. Box 5767, Sevierville, 37864 or lysnwolf@yahoo.com. Deadline is the 26th of each month. Thank You!

Submitted by Alan Bruhin

Thanks to new, safer insecticide technologies, control of Japanese Beetle in your garden is not as difficult as it used to be.

These beetles will feed on roses, cannas, nicotiana, cuphea, bananas, hibiscus, crape myrtles, rose of Sharon, Japanese maples, sassafras, elm, maple, peach,

By Roger Simpson

Like many people, I bought my first lavender plants at a local greenhouse. I simply bought "lavender." It was not until after the plants grew that I realized that there are many varieties of this beautiful and beautiful smelling plant. A member of the mint family, there are thirty-nine species that can be annuals, herbaceous plants, subshrubs, and small shrubs. Lavender's native range is Southern Europe and the Mediterranean region, North and East Africa, and

LAVENDER



This photo of Spanish Lavender shows what impact lavender can have to your landscape.

eastward to Arabia and India.

To keep down confusion from the use of interchangeable names, I have included the Latin names for each of the four species which are commonly grown in

the U.S. These are the English Lavender (*lavandula augustifolia*), also known as true or common lavender. There is Spanish Lavender (*L. Stoechas*), also known as Rabbit Ear Lavender. There is French Lavender (*L. Dentata*), and there is Lavandin

(*L. x intermedia*), which is English lavender hybrids. Each species has slightly different growing and flowering characteristics.

Spanish Lavender is usually first to flower in the spring. It is a heavier

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JAPANESE BEETLES

apple, cherry, crab apple, plum, grapes, muscadines, witchhazles, dawn redwood, fothergilla, loropetalum, wisteria, vitex (chaste tree) and corn.

Some pyrethroid insecticides are now labeled for home & garden use and they don't leave visible residue as the standardly used insecticide, Sevin (carbamate is the active

ingredient). Look for brands that have one of these active ingredients: bifenthrin, cyhalothrin, cyfluthrin.

All of these chemicals will kill bees so I try to avoid applying it to the flowers. If you use Sevin, you will need to reapply after rain or irrigating. One solution, a friend of mine who grows roses has, is to cut off all the

flowers and buds for the four or so weeks that beetle populations are high and spray the foliage that is left with the insecticide. This way she doesn't harm the bees. If you are against cutting off the blooms, keep in mind they will be tattered anyway or covered with white residue from the Sevin, if you use it, so you

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COMMON PRE-PACKAGED AND SINGLE ACTIVE INGREDIENT HERBICIDE LISTS

From Gregory R Armel
PS/EXT/UTIA

I would like to direct you to the "HortWeeds" (<http://hortweeds.tennessee.edu/>) so you can try out our new search engines for herbicide products. These search engines are meant to be a quick reference guide for finding information about all herbicide products with similar active ingredients and/or herbicide modes of action. We have endeavoured to include both new and old products alike to assist you in helping growers identify old products or to assist them in creating tank mixtures

of single active ingredient products to reproduce old favorites. When you reach the "HortWeeds" webpage go to the links entitled "Single Active Ingredient Search" and "Common pre-packaged herbicide mixtures" in the blue boxes on the left hand side of the page. Once you are in these search engines just type the common name, trade name, or mode of action of each herbicide (or just the initial few letters of any of these pieces of information) and you will get back information on all related herbicide products. The more accurate you are in what you type the more successful your search will be in finding what you need. If search engines

are not for you then there are also links to printable versions of the product lists available (make sure you see the number of pages before you decide to print).

There is also a link entitled "Mode of action" definitions which will provide brief descriptions of how herbicides perform in plants and the amount of herbicide resistance encountered to date with each mode of action.

I would ask that you try out these search engines and review the information available and let us know how they can be improved to assist you in your efforts. We will endeavour to keep these documents "evergreen" and would

appreciate your assistance in doing so.

I want to thank the co-authors (Bill Klingeman, Jim Brosnan, Larry Steckel, Greg Breeden, and Neil Rhodes) of these guides for their assistance in tracking down the hard to find products of today and the past. I would also like to thank Tom Mueller for his assistance in reviewing the documents. Also, it is important to note that these searchable engines would not be possible without the web design expertise and efforts of Becky Koepke-Hill.

Please let me (garmel@utk.edu) or Becky (rkoepke@utk.edu) know if you have any questions, suggestions, or comments.

NEW: Sevierville Farmers Market

Sevier Farmers Coop is now hosting a Farmers Market on our property on Wednesdays and Saturdays during normal store hours. We ask that people bring locally grown produce to sell.

The space provided is being done at no charge to the vendors; all we ask is that the vendor sign a liability release form to use our property.

We want to promote the local farmers and gardeners and will do this farmers market throughout the growing season.

If you have anyone interested, please have them contact Mark Williams or Chris Beeler at Sevier Farmers Coop at 453-7101 for more information.

CANNA LEAFROLLER

Submitted by Alan Bruhin

The Lesser Canna Leafroller has been affecting cannas the last couple years. It attaches the leaves together with silk, preventing them from unrolling. This caterpillar also feeds on the leaf. From what I understand, it overwinters in old Canna foliage and stems, so collecting and destroying old plant material each fall should help reduce the population.

A good organic control is BT. BT is made from a naturally occurring bacterium called *Bacillus thuringiensis*. Liquid or

powered Sevin will also work. The problem with both BT and Sevin is getting down in the rolled up leaves where the leafroller is.

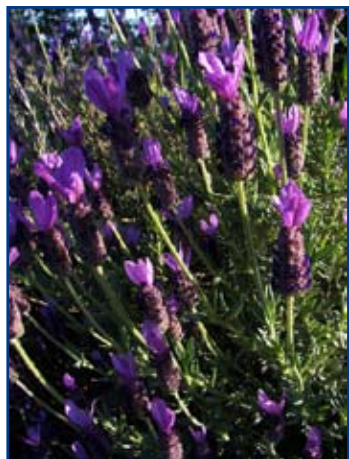
A good systemic insecticide is one with the active ingredient — imidacloprid. Imidacloprid is the active ingredient in many of the Bayer Advanced products found at Wal-Mart and Lowe's and is usually found in blue containers. You mix it up and drench the roots when the plant starts actively growing, maybe when they reach a foot or so tall. I often spray the foliage as well. The label states that imidacloprid will last for

three months or longer. I have not found that to be true, especially in cannas. I suppose because they grow so fast and are actively putting on so much new growth. I reapply every 4 to 6 weeks. We have so many cannas at WTREC and the clumps are so large we spray it on. If you could drench the roots and spray it on the foliage, I am sure it would work better and last longer. I sprayed them 3 or 4 times last summer. I think I stopped in mid-August last year and had no trouble after that. The Lesser Canna Leafroller can and will have multiple generations during the summer.

GROWING DEGREE DAY UPDATE: Leo Lubke says: "As of 6/28/09 the GGD is 1,723.6." As a side note, he adds, "I find a rainfall comparison interesting. Here in Kodak we've had 7.23" of rain in June so far. Last June we had 1.18". So far this year, we've had 28.46" of precipitation." And as always, "If you have questions on pests soon to arrive, those already here or those that have left, look at the "Using Growing Degree Days for Insect Management" chart, or call Alan or me for more info."

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and more robust plant than English and French Lavender. Its flowers are a deeper purple in color and have a distinctive shape, hence the nickname "Rabbit Ear." The smell of this lavender has a noticeable "pine" scent which makes it an exceptionally fragrant landscape plant. But for this reason it is not used in cooking as much as the English Lavenders. Spanish Lavender is probably what the ancient Greeks and Romans used to scent their bath water. The word Lavender comes from the



It is easy to see why Spanish Lavender is often called Rabbit Ear Lavender.

Latin lavare (to wash).

The English Lavenders bloom next. They and their hybrids have more wand like stems than the Spanish Lavender and the flowers are a lighter shade of blue/purple. The oils from English Lavenders are considered to be the highest quality and it is the lavender used most for the production of essential oils. This oil has sweet overtones, and can be used in balms, salves, perfumes, cosmetics, and topical applications. Lavandin yields a similar essential oil, but with



Each variety of lavender has different growing characteristics. A lavandin (shown here) or an English Lavender will give a different look to your herb bed than Spanish Lavender.

higher levels of terpenes, including camphor, which add a sharper overtone to the fragrance. Essential oil of lavender has antiseptic and anti-inflammatory properties and was used in hospitals during WWI to disinfect floors and walls. These extracts are also popularly used as fragrances for bath products.

The English Lavender Hybrids sometimes referred to as Lavandins; come in third in the bloom cycle, starting just as the English Lavenders are finishing, and continuing to mid summer.

These are the workhorses of commercial lavender growing. They have many blooms, grow just the right size, and smell good, too. The botanical name for the Lavandins is *Lavandula x intermedia*. The x means it is a cross with two plants and we know which two. The intermedia means that

these crossed plants have qualities of both parents, or it is intermediate between them. Lavandins have long gray leaves, twice or more the size of *L. angustifolias*. They also grow much larger and faster.

French Lavenders have a distinctive leaf pattern hence its official name, *lavandula dentata*. It is growth mainly for its looks and has a fresh, clean smell.

Because it is a Mediterranean plant, lavender grows well in neutral or slightly alkaline soil. I always use bone meal when I plant mine. Otherwise the plants are not heavy feeders. It also requires sun and well drained soil. It is best to buy plants or to use cuttings. Lavender seeds fall into the "low and slow" category; a low percentage germinate and they are slow in doing so. The plants are fairly easy to make cuttings from. All the species named in this article are considered

perennial and grow two to three feet tall.

English lavender and the lavandins are hardy to zone 5, while Spanish and French Lavender are hardy to zone 8. Having said this I have two beds of Spanish Lavender which have lived for years. But the French Lavender that grew well in the summer did not over winter. If I get the chance I would plant French Lavender again, just to give it another chance. Because of climate changes, I do not know how reliable "hardiness zone" recommendations are.

Growing lavender is great fun, and the plants always add color to the landscape and a nice fragrance to the evening air. If you choose the right lavender for the right spot you will be rewarded with blossoms that can add this same sweet smell (by the use of sachets) to your clothes. And it will keep away the moths too!

CEU CALENDAR

MGs are required to complete a min. of 8 CEUs (Continuing Education Units). Before completing any CEU Courses, be sure that you get approval from Alan Bruhin. Below is a list of CEUs that have been approved by Alan for use by the Sevier Co. Master Gardeners:

- July:**
- 11th (Sat) 6pm: Hummingbirds with Bob Sargent** Ijams Nature Center, 2915 Island Home Ave, Knoxville, 37920. Free. To register call Sheila at 577-4717 ext. 10.
- 11th (Sat) 9am-4pm: Edible and Poisonous Fungi of the Smokies** Smoky Mt Nat'l Park, meet at Cataloochee campground parking area. \$49, register course #09SU858 (865) 974-0150 or www.outreach.utk.edu/smoky
- 25th (Sat) 1pm: Living Clean & Green! Butterflies are Free** Ijams Nature Center, 2915 Island Home Ave, Knoxville, 37920. Workshop led by educator Peg Beute. Free. To register call Sheila at 577-4717, ext. 10.
- 25th (Sat) 9am-6pm: Mosses, Liverworts and Hornworts of the Smokies** Smoky Mt Nat'l Park, meet at Greenbriar Ranger Station. \$49, register course #09SU902 (865) 974-0150 or www.outreach.utk.edu/smoky
- 25th (Sat) 11am-2pm: Creating a Bird Friendly Yard** NEW Earth Fare in Bearden 140 N. Forest Park Blvd.
- August:**
- 8th (Sat) 10am-4pm: Open House** Ijams Nature Center, 2915 Island Home Ave, Knoxville, 37920. Join naturalist Jennifer Moore and get a sampling of the educational opportunities we offer. We'll have four different programs throughout the day including a live animal presentation, a hands-on project, plus a field activity. Open to everyone and it's free.
- 29th (Sat) 1pm: Living Clean & Green! Urban Wildlife** Ijams Nature Center, 2915 Island Home Ave, Knoxville, 37920. Free. To register call Sheila at 577-4717 ext. 10.
- 29th (Sat) 9am-4pm: Photography for Naturalists** Smoky Mt Nat'l Park, meet in conference room at Park Headquarters Bldg. \$49, register course #09FA907 (865) 974-0150 or www.outreach.utk.edu/smoky
- 29th (Sat) 9:30am-4pm: Incredible Edibles and Traditional Medicinals** Smoky Mt Nat'l Park, meet on porch at park headquarters. \$49, register course #09FA881 (865) 974-0150 or www.outreach.utk.edu/smoky
- 30th (Sun) 7am-2pm: Intermediate Photography for Naturalists** Smoky Mt Nat'l Park, meet in parking area at Cades Cove Loop Road. Do not enter the Cades Cove Loop Road. \$49, prerequisite Photography for Naturalists or equivalent experience, register course #09FA907-1 (865) 974-0150 or www.outreach.utk.edu/smoky

SCAMGA EVENTS AND VOLUNTEER OPPORTUNITIES

Ask the Master Gardener Hotline Needs More Volunteers! Volunteers needed Mondays and Wednesdays or Fridays through September. There is a sign-up book in the MG Office. Time slots are typically 8am-noon or 2pm-5pm, although we can work with your schedule. Any help is appreciated and it's a great way to build volunteer hours!

UT Gardens Volunteers: Volunteers are an essential part of the UT Gardens and are involved in a variety of activities such as assisting the garden staff, serving as tour guides, working with special events and programs, and assisting in plant records and labelling. For more information contact the Volunteer Coordinator at (865) 974-7324 or visit

<http://utgardens.tennessee.edu/volunteers.html>

UT Arboretum Society

The UT Arboretum Society always needs help in many ways. Opportunities include:

- Plant Sales
- Arboretum Plant Collections
- Special Event Planners
- Fund Raising
- Administrative Support

To learn more about how you can help email utarboretumsociety@gmail.com

Great Smoky Mountains Association Through sales, labour, donations, and volunteer efforts,

GSMAs provides the National Park Service with additional tools for fulfilling its mission. (865) 436-7318 or toll free 1-888-898-9102 Carolyn@GSMAssoc.org
www.smokiesinformation.org/aboutus.htm

Discover Life in America

All Taxa Biodiversity Inventory Volunteer assist with the search for new species in Great Smoky Mountains National Park, including collection, sorting and identification. For more information, call DLIA's Executive Director Todd Witcher at (865) 430-4757 or e-mail him at todd@dlia.org. www.dlia.org/dlia/volunteer/index.shtml

Farmer's Markets

ANDERSON CO: Oak Ridge Farmers Market
Jackson Square at Georgia Avenue, Oak Ridge, TN
Contact: Jo Ann Wilson (865) 947-1449
E-mail: cww2@worldnet.att.net
Web: <http://www.easttnfarm.org>
Wednesdays, 3pm-sellout thru 10/28 & Saturdays 8am-Noon thru 11/28

BLOUNT CO: Maryville Farmers Market
201 South Washington St., Maryville, TN
Contact: Blount County Agricultural Extension, (865)980-9911
Web: www.MaryvilleFarmersMarket.org
9am-Noon from 5/5-10/6

COCKE CO: Newport Farmers Market
Cosby Hwy across from CVS Pharmacy, Newport, TN

Contact: (423) 237-5187 or UT Extension: (423) 623-7531
E-mail: terry@chcinc.org
Saturdays, 9am to sellout from 5/23-9/12

JEFFERSON CO: Dandridge Farmers Market
Parking Lot Corner of Hwy 92 & US Hwy 25/70
Contact: Barbara Garrow (865) 368-9097 or (865) 397-7420 Ext. 17
Web: <http://www.mainstreetdandridge.com>
Saturdays 9am-1pm

KNOX CO: Farmers' Association for Retail Marketing
Laurel Church of Christ on 3457 Kingston Pike @ Cherokee Blvd, Knoxville
Contact: Jo Ann Wilson, (865) 947-1449
E-mail: cww2@worldnet.att.net
Web: <http://www.easttnfarm.org>

Tuesdays 3pm-6pm thru 11/24 & Fridays 3pm-6pm thru 11/27

KNOX CO: New Harvest Park Farmers Market
4700 New Harvest Park Lane, Knoxville 37918
Contact: Neal Denton, UT Ag Ext Agent: (865) 215-2340
E-mail: wdenton1@utk.edu
Web: <http://www.knoxcounty.org/parks/index.php>
Thursdays 4pm-7pm thru 11/20

SEVIER CO: Seymour Farmers Market
1st Baptist Church, 11621 Chapman Hwy, Seymour
Contact: (865) 453-0130 Lucy Henighan (865) 573-3579
E-mail: creekhappy@ntown.com
Saturdays 7:30am-10:30am June—August

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may as well bite the bullet and cut the blooms & save the bees! The same method will work with cannas.

Japanese beetles look similar to a June bug, but are about half the size with copper-colored wings and they have white fringe (hairs) around the sides of their abdomen. If you don't want to use chemicals, old fashioned 'mechanical control'—picking them off by hand—can be a very rewarding method of control. The best way to accomplish this is to go out in the morning, pick them off and place them in a container of soapy water where they

perish quickly. It is easier if you do this before the air temperature reaches 78 degrees because they are less active when temps are cooler (they don't fly or fall off the plant when they are cold). If it is warm and you don't want to touch them just hold the container of soap water just below them & tap the leaf or flower which will cause them to drop off the plant. Their natural defense mechanism is to drop off the plant when disturbed.

The other option is to do nothing. They will be gone in about 4 to 6 weeks. I use to just mash them and drop them. But the pheromone they give off even after they

are dead attracts other to the area. I now do the soapy water method.

That brings me to the point of traps. Japanese beetle traps use a sex pheromone to attract them to the trap. You will end up with bags full of beetles but far more will be attracted to your yard by the pheromone than actually end up in the trap.

If you think their numbers are high now, just wait a few years. Eventually they will reach a peak that is so bad you will think the gardening world is coming to an end. Hopefully by then, the population of their natural enemies will have also

increased & have numbers enough to control the population. I have lived in other places when they were at peak numbers and it is just unreal.

More info on Japanese Beetles is at <http://www.utextension.utk.edu/publications/pbfiles/PB946.pdf>. A lot of this info applies to turf and trees but the listing of pesticides used for control at the end of this is very helpful. Also, the info on their life cycle will help you time treatments for maximum control. Another good source of info for control of landscape pests is <http://edis.ifas.ufl.edu/IG013>.

GARDEN WRITERS VISIT HISTORIC MOUNT VERNON

by Leo Lubke



HISTORIC MOUNT VERNON is the most popular historic estate in America. The estate, gardens and farm originally totaled about 8,000 acres in the 18th century, but today there are roughly 500 acres. Visitors can see 20 structures, including the mansion and 50 acres of gardens, as they existed in 1799. The property also includes a museum, the tombs of George and Martha Washington, Washington's greenhouse and many many exhibits. It is open 365 days a year, but gardeners would get most enjoyment seeing typical late-1700 crops during the growing season.

It was with a "start" that I was awakened at 4 a.m. I wondered for a moment where I was, perhaps who I was and what was I doing! I quickly realized that I had requested a wake up call at this early hour. Linda and I would soon have to be on our way as special guests at Mount Vernon, George Washington's

estate on the Potomac River. As a member of Garden Writers Association, we would spend the entire day at this Virginia plantation.

The day would begin with a 6 a.m. photo shoot session. We would have continuous garden activities until 4:30 that afternoon. In the directions for this invitation only event, we were given specific instructions to go to the Employee Gate and advised that our group should meet at 6 a.m. sharp. There would be no exceptions. We must ready ourselves to meet the group promptly—no snooze alarm for us!

We left the hotel at 5 a.m. It is remarkable how little traffic there is at that time of day—even in the suburban area on the outskirts of Washington, DC. On schedule, we were greeted by a security officer at the employee gate and directed to the employees' parking area. Soon, in this twilight, we noticed a large white van boldly marked with "Mount Vernon." The driver was

Dean Norton, the director of horticulture for the Mount Vernon estate.

We all piled into the van and after a short drive arrived at the main doorsteps of the impressive home of our first President, George



A collection of period clay pots and a watering can similar to those used in colonial times.

Washington.

Dean briefly gave us the ground rules for our early photo shoot.

"The place is yours. If you see something you'd like to look at more closely, or take a picture, by all means do it. If you see a closed gate, open it! If you see a fence that you'd like to cross, cross over it. Any part of Mount Vernon (except the locked buildings) is yours to enjoy and photograph until it is open to the public

at 8 a.m. I've instructed our security team that you have free reign."

Imagine it! We could (and did!) visit every part of each garden and orchard. What a unique opportunity.

As promised, at 8 a.m. the same white van arrived at the main mansion entrance ready to return us to our cars. As we boarded, we all agreed that we had a much greater appreciation for the gardens and landscape and also fine pictures from this special photo shoot. Later in the day, we would return to hear more about these historical gardens and landscape.

For now, however, we were expected for breakfast at River Farm just a few miles from Washington's home. River Farm is now the headquarters for the American Horticultural Society (AHS). This magnificent mansion and grounds was also one of Washington's seven farms. He visited there often, but never stayed there.

Today, River Farm would

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provide us with a tour of the AHS gardens and plant trials. A very interesting program "Harvesting the Heavens—Conserving Water and Preserving Watersheds," by Joe Keyser, fellow garden writer and president of Greenman Communications, was presented in the conference center. This was followed by a lunch overlooking the Potomac River.

Returning to Mount Vernon, we were greeted by Melissa Wood, Mount Vernon's media relations manager and escorted to the lecture hall and briefed on our afternoon activities.

A major goal of the Mount Vernon Ladies Association is to restore the buildings and grounds to what George and Martha Washington would recognize. In these efforts, the staff's archeologist, Esther White, director of archeology, plays an important role.

Current visitors see firsthand excavations in the upper garden near the orangerie ("greenhouse" to



The lower garden (vegetable and fruit).

us). To provide the story, the archeologist gave an illustrated talk on what the findings have been, progress and timeline for completion. We, as a group, then toured the excavation site to see in person, the original Washington bed designs. Previous visitors who return to Mount Vernon will note a considerable change in the upper garden area when the restored garden is opened in 2011.

Dean Norton again met with us to continue the Garden Writers tour. Meeting on the Bowling Green, Dean described and illustrated changes made by Washington which deviated from the English look to the American style after the Revolutionary War.

While Washington planted hundreds of trees on his Mount Vernon estate,

form, the last couple of months, we will probably head into August with temps at and below normal...should be nice. I remember as a young child, when we visited each August before school started, the wonderfully cool nights and mornings. We lived in hot Memphis...humidity city!! The only rain may be isolated and scattered showers, as earlier in the month. When we change to cooler late in July, the fronts may spark showers...or...perhaps a tropical depression or hurricane will form... (which we were below normal for June)...and bring some rain.

Still, few sunspots. We had six last month, the most since sunspot cycle 23 ended. Remember, 100 to

only 13 are believed to survive today. The 13 trees are two tulip poplars, two white ash, a white mulberry, a hemlock and seven American hollies.

It was again an honor to have Dean lead us on a tour of the lower garden explaining Washington's technique of adding plenty of compost to the soil. Mount Vernon also had a building designated as a Dung Repository where animal manure was thoroughly composted on a regular basis. This was a new practice in colonial times and Washington studied the application of compost to increase crop production.

Irrigation was extremely important in these gardens that provided produce to the very busy Mount Vernon kitchens. We often forget that George Washington was truly an organic gardener who even practiced wise watering techniques!

Today the produce from the Mount Vernon gardens is donated to local food pantries.

Dean led us to George Washington's personal garden, just a few steps from the

mansion, where Washington would experiment with various species and planting techniques. This was the forerunner of what we know today as a trial garden.

The last event at Mount Vernon was a behind the scenes tour of the Gardener's House. This building's location shows the importance given by Washington to this vital member of his staff. It is near the main entrance of the mansion and immediately in front of the personal garden. Dr. Dennis Pogue, associate director for preservation at Mount Vernon, took us on a private tour of this restored residence and work area of the gardener. Colonial garden and period household items are located throughout this dwelling. The tour of this Gardener's House gave us all the opportunity to reflect back over 200 years and imagine gardening in colonial times – and to think how current gardening trends seem to be going back to the gardening philosophy and practices of George Washington.

The Weather Rock

July 2009

Greeting from the 'Weather Rock',

After some really hot, humid, and ozone laden days finishing off June, a slowing moving cold front inched its way into our neighborhood, 6/28, cooling things a little and finally dropping temps on July 1st. What a beautiful blue sky!! The first two weeks of July will be fairly dry, with the only breaks being some afternoon and evening or other spotty showers. Then, the tenth through the twentieth may be the hottest temps of the summer...but...since a minimal el nino has been trying to

200 per month is normal once an 11-year cycle kicks off. Our next cycle (#24) is now about 2 years +, overdue. Our planet's temp continues to cool in the stair-step manner of up one step-down two.

As previously stated, when we have sunspot minimums, as now, we have increased seismic and volcanic activity. Mount Redoubt and Sarychev are both erupting and really injecting SO₂ (SO₂ molecules act as mirrors, and reflect the Sun's rays) into the atmosphere. Like the Mt. Pinatubo eruption, in 1991, this will also cause a drop in global temps for at least a year after the eruptions stop. You may have heard the mention of 'the year without summer' in reference to THIS

year's summer near the Great Lakes and the Northeast. The real "year without summer" was in 1816, during the Dalton Minimum, after the eruption of Mt. Tambora (it snowed in June, that year, in places it's not supposed to snow...in June). Our sunrises and sunset will appear red, to one degree or another, for the duration of the eruptions. The more SO₂, the bigger the temperature drop. These two eruptions, combined, are not as great as Tambora...to this date...enjoy the show!

From a 'weather rock' whose Summer appears tolerable to cooler...

Thanks!

Jack Bailey