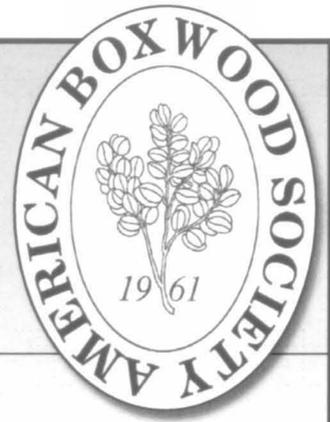


# THE BOXWOOD BULLETIN

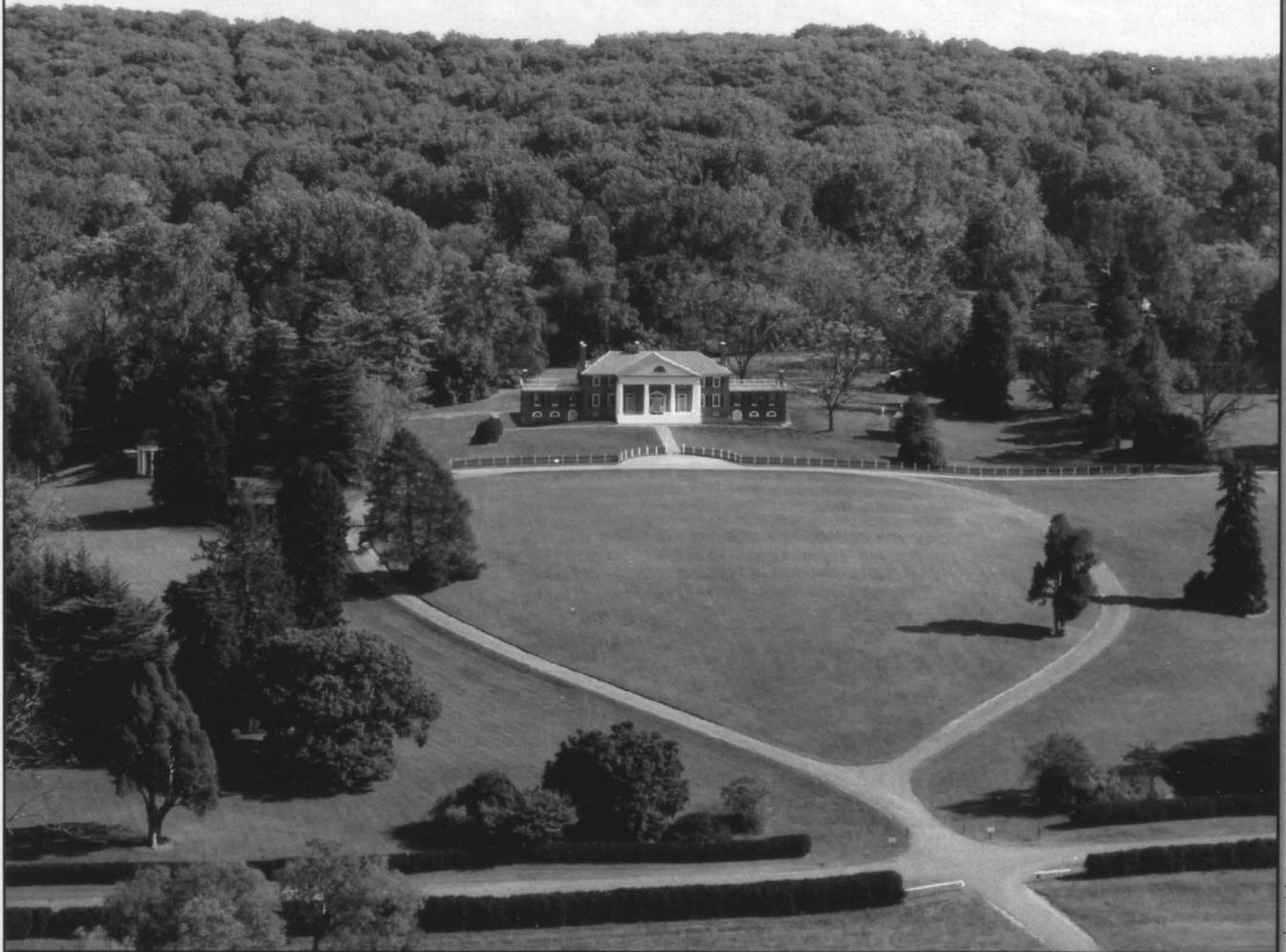


The journal of the American Boxwood Society  
devoted to our oldest garden ornamental

Vol. 52 No. 1

Summer 2012

*America the Beautiful*



James Madison's Montpelier

with permission

# The American Boxwood Society

The **American Boxwood Society** is a not-for-profit organization founded in 1961 and devoted to the appreciation, scientific understanding and propagation of *Buxus*. Visit our website at:

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Be part of The Boxwood Bulletin! Submit an article, photograph, question, idea or report of your own experience.

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## *From the Editor...*

JULY---the month of all things patriotic—and filled with history. It is the perfect time to take a look at our favorite plant, *Buxus*, and its part in America's history through the centuries.

It has been witness to earth-shaking events (literally) and friend and companion of men and women who have shaped our history. No doubt they talked with their plant friends, just as gardeners do today (Edith, my magnolia, is my favorite friend to gab with, mostly about the weather), and the conversations probably held important news, secrets that figured in love and war, and, undoubtedly, many prayers.

Offspring of those *Buxus* originals now share life with home owners (my garden is a veritable polyglot

of historic cuttings), memorial gardens, and even research teams as their past lives are examined, appreciated, and preserved. They make gardening life all the more interesting.

It has been a pleasant task to dig through archives and talk with curators who carefully tend America's historic gardens--some of the nicest people in the world, I've decided. The summary of this pleasant task, titled "The Gardening Legacy of our Founding Fathers" appears in the following pages and is necessarily limited; but perhaps there is just enough revealed to whet your appetite for more. You are encouraged to "visit America" this summer in search of fascinating history and your favorite plant. You'll be amazed how often it turns up!



## *The ABS in Action...*

### *And Other News of the Society*

- It is always a pleasure to share in the successes of our boxwood friends all over the world. A communiqué from the European Boxwood and Topiary Society (UK) informs us of a Chelsea Flower Show winner! James Crebbin-Bailey of Topiary Arts, and member of EBTS-UK has taken a GOLD MEDAL! We congratulate James on this latest accolade!

- Activity in the battle against boxwood disease, specifically, *cylindrocladium buxicola*, commonly called "blight" in the US and Europe, is ongoing and is accelerating. The ABS is getting information out as it is made available and encourages your participation in this process—either by requesting information or by sharing information you may have or be aware of.

The "boxwood blight" summit, held in England in

April was attended by Bennett Saunders and Lynn Batdorf, ABS members. They brought back positive reports concerning information delivered and progress made. The work of three plant scientists, Dr. Beatrice Henricot of the Royal Horticultural Society, Dr. Kurt Heungens, and Dr. Kelly Ivors of the North Carolina State University (who was a presenter at the ABS Symposium in Charleston) is discussed in Dr. Henricot's report appearing in this issue of the Bulletin.

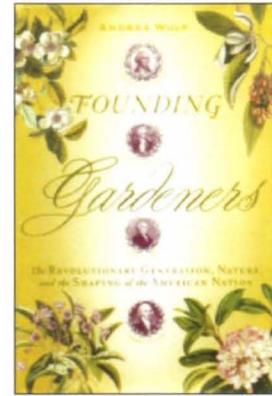
- ABS Member (and International Registrar for *Buxus*) Lynn Batdorf conducted a workshop at the US National Arboretum in June on *Buxus* identification, growth habits, diseases, and care. Lynn is curator of the Arboretum's internationally renowned boxwood collection. The workshop included a tour of the collection.

# The Boxwood Bookshelf

*Founding Gardeners - The Revolutionary Generation, Nature, and the Shaping of the American Nation*

by Andrea Wulf

Knopf, 2011 New York ISBN 978-0-307-26990-4



In her book, *Founding Gardeners*, Andrea Wulf explores the shared passion of Washington, Jefferson, Madison, and Adams for plants of all kinds: agricultural, medicinal and ornamental, and that passion's link to the pursuit of liberty in the new nation. A consummate researcher, Wulf's resources at the back of the book account for a fourth of its thickness.

The history, some of which is not covered in our text books, is so interwoven as setting that it pops out at you. These men were true multitaskers! In the throes of war, political debate, and social gatherings, their gardens were always on their minds and in their writings. They were always investigating the gardens and the farming practices of others. Wherever he was, Adams, a great chronicler, took copious 'minutes' not only of constitutional matters, but also documentation from his readings of other countries' styles of governing (and noting those America should stay away from). He also noted the flora and fauna of the countryside wherever he found himself.

All were concerned with promoting good agricultural practices, particularly the replenishing of the soil af-

ter crop use, especially tobacco, a major colonial crop, which depleted the soil so completely. Fortunately, they kept lengthy diaries, which still exist, and give us a bird's eye view of history and horticulture from the mid 1700's into the 1800's and its direct bearing on the founding of America.

There are nine chapters and I found reading one each night allowed me to sort and store the information on each man's thought, aims, and losses. Yes, each did have failures and those only made for more determination to find solutions, as many were so very important to the creation of a strong nation in their minds. It is easy to forget how difficult life and gardening really were in the 18th and 19th centuries, but this book puts all that into perspective. Even men of privilege knew adversity on a daily basis. Their trials and tribulations in gardening make our experiences, well, look like a walk in the park!

This is a great read!

*By Tish Iorio*

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**ABS ANNUAL MEETING & SYMPOSIUM**

**TO BE HELD IN WILLIAMSBURG, VIRGINIA  
MAY 19 – 21, 2013**

**MARK YOUR CALENDAR!**

# THE GARDENING LEGACY OF OUR FOUNDING FATHERS

The patriots known as the Founding Fathers are the most important, most revered, most studied, and perhaps the least understood people in US history. Few know that these men were deeply involved in and sustained by a profound interest in farming and gardening. They were keen plantsmen and were promoters of the proper use and preservation of America's natural beauty and resources from the very beginning. Their love of nature and gardening provided relief and hope during the arduous years of politics and revolution, and long after their political lives ended, their work with soil and plants was felt to be a continuing act of patriotism. Madison once said of Adams that his great interest in the natural history of the young country and in farming was proof of his "comprehensive patriotism".

They were the right people in the right place at the right time—providence. They seized the moment and immersed themselves not only in vital political affairs, but also in the affairs of the new world around them. They realized the importance of making the soil productive—it had to sustain the new nation with food and building materials—and they were inspired by the natural beauty of virgin forests and the varied treasures of the undergrowth. They sought ways to bring that beauty to their immediate surroundings, developing beautiful and productive gardens for their homes and acreage, with even the vegetable plots sharing in the concern for visually appealing gardens.

Their experimentation with and use of a broad spectrum of plants is well documented. All of them enjoyed the search for new plants from the native plant material that was to be found in the flora of the new country. Such searches provided a reason to relax with a walk or ride through the countryside sometimes in the midst of harrowing meetings or even battle! They loved the land around them and learned to use it for sustenance of spirit. But they did not reject the ornamental plants that had been imported from Europe, England primarily. *Buxus*, for example, figured prominently in their garden planning.

*Buxus* was an early comer to the new world; the Puritans brought cuttings and young plants from England and the adaptable and long lived favorite became established early in the colonies. It became a much used addition to the ornamental gardens of their homes, simple and grand. Jefferson alone of the Founding Fathers did not utilize *Buxus* in his gardens. Historians are still looking for the answer to this puzzle and archaeologists continue to dig for evidence of boxwood, egged on by frustrated boxwood-loving Jeffersonites! It is said that Jefferson's aversion to boxwood was caused by the smell, possibly from childhood since Tuckahoe, his boyhood home was amply endowed with boxwood! Though Mr. Jefferson, the great plantsman, grew almost everything at Monticello, *Buxus* is noticeably absent. But Jefferson's deep appreciation of nature, plants, and gardening, especially vegetable gardening are cause enough to forgive his omission of boxwood.

While Tuckahoe may have caused Jefferson's distaste for boxwood, undoubtedly his great appreciation for working with the soil and for natural surroundings of great beauty began at Tuckahoe where farming was combined with lovely ornamental gardens. Today it is a thriving reminder of Jefferson's early years, receiving a steady stream of visitors each year.

The research into Tuckhoe's history and its preservation are ongoing. The boxwood maze was over 100 years old before it succumbed to box decline in the 1970's. There were over fifty flower beds within the maze. The present site of the vegetable garden is known to have been the site of vegetable gardens in Jefferson's day; but the gardens at Tuckahoe are not restoration gardens, because very few records remain of its 18th century landscape. The gardens now are a reflection of the gardens of the colonial period with boxwood much in use.

The gardener at Tuckahoe writes that the design, including the perimeter beds, has evolved over the last thirty years. The diseased English box has been replaced with choices like 'Justin Brouwers' and 'Jensen'.

'Dee Runk' has replaced diseased 'Graham Blandy'. There are other varieties of box, too—American and Korean. So Tuckahoe is still blessed with boxwood, but much varied from the original. It is a good example of the ingenuity that must be exercised by gardeners when faced with the reality of disease.

It is Monticello which, by far, has the most abundant available historical information, but two other sites are important in Jefferson's history: one is Tuckahoe, mentioned above, and the other is Poplar Forest, built by Jefferson in Bedford County, Virginia, 90 miles from Monticello, and near Lynchburg. He was already in his 60's when he built it, and in need of a place of peace and quiet, where he could read, write and contemplate nature. It was never really finished and he was able to visit it only a few times. It is unlikely that any gardens were developed there. Astonishingly, it nearly passed into oblivion. Today, thanks to a grass roots effort by a small group in 1984, Poplar Forest is being painstakingly restored.

There is magnificent boxwood there, thought to have been planted ca. 1860. The English box was planted as a maze, and though not done by Jefferson, is a worthy complement to the stunning architecture of the retreat. For boxwood lovers, this historic site is a must. A visit may put you in touch with Jack Gary whose philosophy of boxwood gardening is enlightening. Look for him! Poplar Forest receives many visitors each year, who are able to witness archaeology in progress and buy small boxwood plants grown from cuttings taken from the maze.



*Poplar Forest (Photo - Les Shofer)*

Madison, the Founding Father who is known as the Father of the Constitution, Jefferson's close friend, neighbor, and fellow naturalist, used boxwood extensively at Montpelier in beautiful formal gardens, in the cemetery and in numerous other places. The gardens, planted by James and Dolley, were unabashedly ornamental. L'Enfant, the designer of Washington, DC, advised Madison on the plan for the gardens when he visited with Lafayette. The formal garden of almost four acres was terraced and held an infinite variety of plants and roses. There was box all along the top of the terraces. (Dolley often wrote of her great pleasure in her roses and boxwood. She used boxwood for bouquets and garlands for the house.) An especially unusual feature was a great boxwood tunnel going from the entrance to the center of the garden!

The terraced garden was reduced to two acres and restored by the DuPonts in the early 1900's. The DuPont garden was in turn, restored by the Garden Club of Virginia in 1992. That garden has been left intact, though Montpelier itself has undergone major restoration. It is magnificent! The cemetery at Montpelier still has the required boxwood all around and holds the final resting places of James and Dolley.

It was trees, however, that were especially interesting to Madison, (he shared this deep interest with the other Founding Fathers) and they were an important part of the landscape. He planted English oaks, poplars, beech and hickories. A serious horticulturist, he corresponded with American and European botanists extensively always looking for the best, the enduring, and the unusual. There is a 200 acre old growth forest behind the house, of great importance to Madison and his horticultural philosophy; he was intent on the conservation of that forest and urged the careful monitoring of all America's timberlands. He placed great value on the forests of the Piedmont and those that covered the new country and feared for their thoughtless waste because already he could see alarming destruction. He wrote in 1818, "Of all the errors in our rural economy none perhaps is so much to be regretted... as the injudicious and excessive destruction of timber... It seems never to have occurred that the fund was not inexhaustible." The forest has been designated a National Natural Landmark.

Visitors today can buy young plants of Montpelier's

boxwood grown from cuttings of Madison's own. His legacy lives on in the stately home, gardens and forest made a part of nature's stunning handiwork. To look at it all from the secluded library over the portico where Madison worked to produce the Constitution is to take a spine-tingling step back into history!

Returning home from war, George Washington was greeted by the sight of depleted and suffering farms and gardens at Mount Vernon. With typical resolve, he set about restoring the productivity and beauty, memories of which had sustained him during the bitter battles of the Revolution.

His efforts were often met with failure, but as in battle renewed resolve won out. In surveying the forests around the property he made the decision to bring the native plants of his new country into his gardens. Eventually native trees and shrubby plants came together in the landscape at Mt. Vernon, shaping the first truly American garden. His recognition of the value of these plants and his preference for them was revolutionary, and a sign of the advancing independence from the old world, and of the patriotism our Founders felt as they sought to build their country from the ground up. Washington's dedication to Mt. Vernon's farms and gardens, and the fact that he himself was the supervising gardener, makes the gardens at Mt. Vernon very important, contributing greatly to the portrait of soldier and statesman as a man who loved his land, his new country and was determined to succeed.



*Mt. Vernon Tulip Poplar planted 1785 and descendant of boxwood sent by Col. Henry Lee.*

Washington readily adopted boxwood though it was not a native plant, most of it given to him as cuttings and small plants. It was used extensively as edging. He used it in landscaping all his properties, and descendants of all that boxwood have made their way across the country and into some great gardens. (Souvenir seekers took cuttings long before the Ladies' Association realized there were funds to be found from the sale of Mt. Vernon's box!) A *Buxus sempervirens* 'Pendula', was a gift from "Lighthorse Harry" Lee of nearby Stratford Hall where boxwood is legendary. Lee also sent to Mt. Vernon the ancestors of the box edging in the upper garden. Washington wrote in April, 1785: "Received from Col Henry Lee 12 horse Chesnut Trees (small) and an equal number of cuttings of the Tree box....Planted...4 of the box in my shrubberies—two on each side and the rest in the vineyard."

Washington's diaries of his garden and landscape activities have been a godsend to those who constantly research his plantings and boxwood figures frequently in his entries; for example, an entry for November, 1798, states "Wheeling Manure Digging – and planting box edging in the High Garden." And "3 men 1 day digging and planting hedge around the garden".

Dean Norton, curator of the gardens at Mt. Vernon, tells us, "The boxwood that adorned the garden for so many years was planted around 1860 and finally succumbed to boxwood decline. The old garden was scraped away and after five years of archaeology and horticultural research a more accurate upper garden returned."



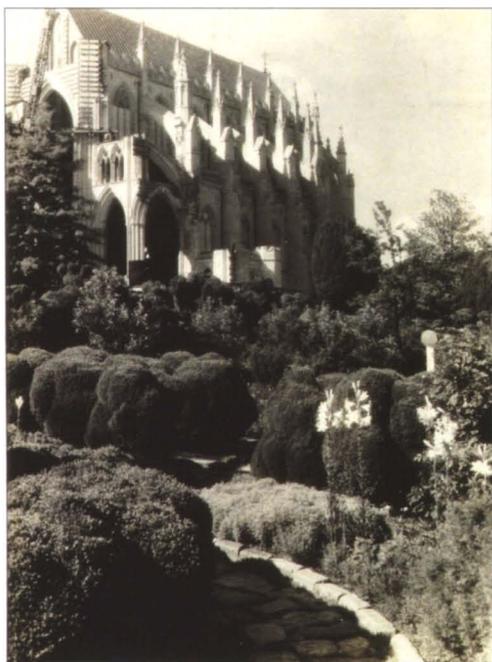
*Kitchen Garden at Mt. Vernon (Photos by Dean Norton)*

## Washington's Legacy at the National Cathedral

A consideration of Washington's legacy leads to another of America's treasures-- the National Cathedral, which stands on a high hill not far from Mt. Vernon, and not far from the White House, keeping watch on the nation's capitol below.

It was Washington, who, in 1791, working with L'Enfant on a plan for the new nation's capital, designated a location for a great church "intended for national purposes". It was fifth of thirteen recommendations written on the map itself. It took one hundred years for the first steps to be taken to realize his vision. A group of 28 from all over the United States gathered to discuss the project and two years later Congress granted a charter. But the delay in beginning this great project was fortuitous. The amazing growth of the District in that century made it clear that the site originally chosen would be far too restricted for the cathedral and its allied institutions. A new site with adequate acreage would be sought, and that site should hold inspiring architecture, beauty of surrounding and an atmosphere of peace. The wooded hillside of Mount St. Alban beckoned—four hundred feet above the Potomac, unsurpassed as a cathedral site. The land had once belonged to the Nourse family, friends of the Founding Fathers! A Peace Cross was erected in 1898 marking the 70 acres as dedicated for a sacred purpose.

By 1916, with building proceeding, it was decided that plans for the landscape surrounding the structure



*Bishop's Garden 1930's (National Cathedral Archives)*

could begin. Studies were made by many landscape architects, always remembering the first President, his principles, and his love of America's beauty. Plans included the preservation of the wooded hillside, encouraging the growth of native trees.

In 1926, the Bishop's Garden was begun. Many of the trees, and much of the boxwood, yew, holly and magnolia, and the ancient stone had historic associations, especially with George Washington. His boxwood, *B. sempervirens* 'Suffruticosa' surrounded the font in the Hortulus garden, the first planting in the heart of the garden. Three fine *B. sempervirens* from Washington's property at Hayfield Manor (purchased by Washington in 1761) joined other Washington boxwood there. Stone for the walks and walls is from the quarry at Aquia Creek near Hayfield Manor, also originally owned by Washington.



*Excavation for the Ilex opaca replacement with old, declining boxwood visible. (Photo - J. Luebke)*

All these historic plants, already old in 1926-36, have over the 85 years since, gradually begun to succumb to boxwood decline. The repair of damage to the cathedral caused by the earthquake of 2010, resulted in great damage to the plantings: a huge crane hauling down damaged stone from the walls, collapsed, destroying a large portion of the Bishop's Garden. The gardens are now undergoing extensive renovation with much of the American and English box being replaced by 'Green Beauty'. This massive renovation, like much of the original planning, can be seen as a tribute to George Washington, a Founding Father who wouldn't give up.

In her essays on the gardens of the National Cathedral, Florence Bratenahl\* wrote in 1932: “Who knows but what the days beyond our own may have a need [greater] than the urgency of this hour; a soul-hunger craving for stillness.” Her visionary words attest to the importance of gardens, simple or grand. Today we find ourselves so harried and frantic in a computerized world that we are fast losing touch with the natural world of our America the beautiful, the land which the Founding Fathers loved so much and sought even at the beginning of this country, to preserve. There is indeed a “soul-hunger” for a natural stillness and peace. For those who will pause to remember our forefathers, a profound sense of gratitude, and perhaps a renewed sense of purpose may be found.

\*\*\*\*\*

\*Chairman of the Garden Committee, All Hallows Guild, the Garden Guild of the National Cathedral. Her records and writings have formed invaluable archives.

*Editor’s Note:* Research into the glorious gardens of the National Cathedral produced the realization that those gardens and their history deserve an article all their own. Watch for it in a future issue of the Bulletin.

Many thanks to the wonderful gardeners and curators who gave their valuable time and unstinting assistance for this article: Jack Gary at Poplar Grove, Dean Norton at Mt. Vernon, Sue Thompson and Mary Edmonds at Tuckahoe, Joe Luebke at the National Cathedral; also Archivist Diane Ney and assistant Elody Crimi at the Cathedral. – *The Editor*



1930 - Ancient Boxwood and Yew from Col. Lee's home (National Cathedral Archives)

# *Fighting Disease*

## *With Good Boxwood Care*

With boxwood blight becoming a major concern for gardeners, keeping our boxwood healthy so it can successfully resist infection is a top priority. Thoughtful care is the answer; knowing what constitutes proper care is vital.

Begin with the right plant for the right place. If yours is an established garden, you may have discovered that errors were made in selecting box cultivars that are much too large for the space they are in. If you are just laying out your garden plan, it is important to know that good care begins with choosing the right boxwood for your space. The right plant can greatly reduce maintenance requirements that put stress on the plant. The ultimate size of a plant is very important—it wants to become what nature has decreed, and trying to hold it back by constant pruning weakens the plant, opens it up to disease and eventually it will succumb. Decide from day one whether your choice will quickly outgrow its allotted space and be dependent on pruning to maintain its optimum size.

Do some research when selecting your plants. Many boxwood cultivars maintain a small size naturally, thereby reducing pruning tasks and the stress they cause. More good news—these cultivars add a great deal of interest to the garden that regularly sheared large cultivars do not add. Consider ‘Morris Midget’, ‘Justin Brouwers’, or ‘Jensen’, one of the handsomest boxwood plants out there. Reduce the plant size, reduce your pruning chores and reduce the stress placed on the plant—a healthier plant, a happier gardener!

If you prefer the precise sheared lines of boxwood in your garden, know that your maintenance requirements will escalate and so will your chances of producing stressed plants and ultimately diseased plants.

It’s an unpleasant fact. But nature does not appreciate manipulation—never has. The inescapable can be postponed by keeping the shearing to a once-a-year procedure and using the thinning method for keeping the plant somewhat contained. Pruning the branches of box such as ‘Green Velvet’ produces branched tips which eventually form a canopy that shuts out light and air—the beginning of an unhealthy plant. It is necessary to cut out or thin the branched tops by cutting down into the plant beyond the branching, opening the plant up. It is a labor intensive procedure. It is important to do a good clean up after pruning. Debris provides a breeding place for fungal diseases.

The excessive clipping of slow-growing boxwood like *B.sempervirens* ‘Suffruticosa’ (English boxwood) when trying to keep an unrealistically tiny plant, will place the plant under severe stress and it will eventually fall victim to disease and death. Instead of manipulating such a plant, substitute other kinds of plants. If you are after a really petite edging, consider herb plants—thyme, teucrium, santolina; not the same look, but an acceptable and interesting alternative to stressed, pathetic looking ‘Suffruticosa’. A bonus is there, too—delightful fragrance.

Practices other than excessive pruning can cause health problems in boxwood, too. Planted in decent soil to begin with, box is a fairly self-sufficient plant (and left to be just that produces a beautiful sight usually) that needs little or no fertilizer. Overfertilizing will most certainly lead to a confused, stressed plant that will soon decline. Unless you garden on notoriously poor soil or only in pots, your boxwood should not need fertilization. If the gardener cannot resist doing it, a light, organic fertilizer once a year

is acceptable. Incidentally, the fertilization of pot-grown plants can be a tricky thing. It must be carefully done in very small amounts with a mild organic fertilizer. Check out your product with care.

Overwatering is another way of dooming boxwood. An excess of water is usually the result of using an automatic irrigation system. These systems are a great help in times of extended dryness, but otherwise are often overused and destroy lots of boxwood. Box like most plants, needs a well-drained situation, something to consider carefully in your original layout work. Constant dampness is to be avoided.

As in fertilizing and water, restraint is the key to proper mulching. Too much will suffocate shallow roots and retain moisture too long. Damp mulch provides the perfect opportunity for fungal diseases. Likewise, do your weeding with care. Overzealous use of sharp tools in weeding can cause damage to the roots of boxwood that provides entry points for disease and injury to the entire plant.

To sum up briefly: avoid a regimen of *too much* care for your boxwood. A program of judicious pruning (thinning) and cleanup, and providing other care only when it seems to be called for, should be the rule for boxwood which was thoughtfully planted in healthy soil to begin with. *Ne quid nimis*—nothing in excess. When the Romans forgot this, an entire empire collapsed.



*ABS member Kelly McGeath practicing what she preaches in a Charleston Garden.*

# Report of the Boxwood Disease Summit Held in England – April 26, 2012

ABS member Bennett Saunders attended the Summit and asked Dr. Beatrice Henricot of the Royal Horticultural Society, a presenter at the Summit, to share with the ABS a summary of the proceedings. Dr. Henricot's report follows.

On 26 April, the RHS hosted a box summit focused on pests and diseases of box. The objective of the workshop was three fold: to draw together a shared understanding of what we currently know about pests and diseases of box (*Buxus* spp) and their management, for dissemination to scientists, growers and gardeners; 2) to identify and prioritise further work needed, especially research requirements; 3) to facilitate collaboration between stakeholders with an interest in box. Around 50 delegates including scientists, nursery growers and gardeners coming from 8 different countries attended the workshop. In the morning, three presentations were given by Dr. Beatrice Henricot (Royal Horticultural Society), Dr. Kurt Heungens (Institute for Agricultural and Fisheries Research, Belgium) and Dr. Kelly Ivors (North Carolina State University, USA) on the box blight pathogen *Cylindrocladium buxicola*.

My presentation on box blight reviewed the history of the disease throughout Europe and provided an update on the current status of the pathogen. My earlier work has focused on the biology and control of the fungus, host range and the optimal weather and environmental conditions that favour disease spread. I also presented my latest results on fungicide efficacy trials regarding preventive and curative chemical applications and discussed potential fungicide strategies for managing this disease in commer-

cial nurseries. Although there are some potentially good fungicides to treat the disease preventatively and curatively, these are not available to amateur gardeners and for professionals they will need to have an extension of authorization to be used on ornamentals in the UK. Unfortunately, the fungicides available to amateurs did not show effective control of the disease.

Dr. Kurt Heungens provided new data on biological and genetic studies from his laboratory. Kurt showed that two genotypes coexist in mainland Europe. The second genotype has not been detected in the UK yet, but occurs in Belgium, Holland and Germany. It was shown to have reduced sensitivity against some fungicides but no difference in infectivity was detected. Kurt also showed that at lower temperatures (six degrees Celsius) the fungus can only infect younger leaves, not mature leaves. Leaves will also be more susceptible at lower temperatures if they stay wet for a longer period of time. Data on resistant cultivars and fungicide efficacy studies were also provided, as well as information on pathogen spread between plants in containers spaced at varying distances, adding more scientific evidence that the fungus is water-splashed and its spread over short distances will depend on the intensity of rain.

The presentation of Dr. Kelly Ivors reviewed the recent discovery of the pathogen in the US, highlighting new data on pathogen biology, pathogen host range and implications for controlling the disease in the US. Dr. Ivors showed pictures of box leaves with microsclerotia (resting structures) of the pathogen; the discovery that this pathogen has the potential to

produce microsclerotia in *Buxus* debris will have significant implications for long term survival of this pathogen in outdoor locations where the disease has occurred.

In the afternoon, several people from the industry shared their experience on how best to grow healthy box in nurseries and also in semi-natural environments. It was mentioned that restricting application of nitrogen makes the plants less susceptible to infection. Reducing or stopping clipping to make the plant less dense and therefore allowing more ventilation throughout the plant also helps to reduce the incidence of the disease.

...A field trip to Box Hill provided an opportunity for people to observe how the native box withstands natural infection by *Cylindrocladium buxicola*.

*The ABS offers sincere thanks to Dr. Henricot for her work in this Summit and for sharing the results of research into boxwood disease.*



*Dr. Beatrice Henricot and Dr. Kelly Ivors at Box Hill in England.*

# Boxwood Disease (Blight) in the United States

*Dr. Kelly Ivors was a presenter at the Box Blight Summit in England in April, 2012. She had previously presented information regarding Boxwood "Blight" at the ABS Symposium in Charleston. Abundant illustrations were accompanied by an enlightening commentary. A summary of that commentary follows.*

Dr. Ivors first gave an account of the appearance and spread of boxwood blight: it began in October 2011 in North Carolina; by late October it had appeared in Virginia and Connecticut, moving on to Massachusetts and to New York by late December. All outbreaks were confirmed by the national mycologist USDAD-APHIS. In late March, blight was reported in Ohio.

The box blight pathogen is properly known as *Cylindrocladium buxicola*, and is commonly called cylindrocladium box blight, or just box blight. This disease greatly impacts the appearance and aesthetics of boxwood. The foliage of the entire plant typically becomes blighted with resulting leaf drop over some or all of the plant. An established plant may or may not die, as the roots are not the part of the plant attacked. (Young seedlings are generally killed by the pathogen.) However, an infected plant, being defoliated, is useless to the grower and gardener, and in addition poses the problem of spreading the pathogen. The only recourse is to destroy the plants so affected. Obviously blight is not just a nuisance disease, but a very costly one that could have totally devastating effects on the plant and the nursery industry.

Infection can occur very quickly in warm, humid conditions and the disease cycle can be completed in one week. The fungus can penetrate the leaf through a cut, or enter through the leaf stomata. The disease can be spread by water splash and rain, by contaminated tools and by contaminated debris being moved by runoff water or by trucks and other equipment. People, especially people involved with the plant trade are the primary spreaders of the disease. Poor cleanup practices are particularly damaging, as the pathogen can survive up to six years on decomposing fallen leaves of infected plants.

Dr. Ivors pointed out that people are the agents who have placed the plant under the stress that undermines the natural strengths of the plant. Poor management practices predispose the plant to disease. We have to clean up our act while we are in the process of cleaning up the disease we have helped cause. This means proper care of a plant and refusal to engage in practices that cause stress in a plant, the most prevalent being frequent harsh shearing, over-fertilization and over-irrigating. It is crucial to clean up and dispose of debris to prevent an environment that encourages the spread of disease.

Dr. Ivors can be reached at North Carolina State University, Research Extension Center, Mills River, NC. She is an associate professor in the Dept. of Plant Pathology. The ABS is deeply grateful to Dr. Ivors for her participation in the 2012 Symposium.



*Box blight in nursery fields*

## BOXWOOD (*BUXUS*) IN AMERICA OR AMERICAN BOXWOOD... OR...

What's in a name? Actually, lots.

Names designate, define and assure us of what we're talking about. We really can't do without names, and have been known to stumble grievously when we try pressing on in ignorance! Plant searches would be impossible and so would exploratory conversations with garden centers; garden touring would be futile. The intelligent approach to gardening necessarily involves a knowledge of plant names.

And what about boxwood? Is it enough to refer to boxwood simply as "boxwood"? In some places a word similar to "boxwood" may be used to designate a lilac! We'd be in trouble there! We're on firmer ground when we refer to *Buxus* (or *Syringa*), aren't we? The proper Latin—recognized globally—no mistake about it. (And, you'll speak French in Latin when you remember to use "*Buxus*" as you tour beautiful French gardens!) What a great gift we received when Linnaeus gave us a naming system—nomenclature—for plants.

Still, our frequent preference is for the vernacular, i.e., the common name, which, although more comfortable, can turn into a quagmire of mistakes and nicknames. In America, especially along the Atlantic seaboard, most refer to the boxwood grown there as "American boxwood", a name that evolved because the boxwood that came to the colonies and decorated landscapes and gardens of the new country became known as the boxwood that grows in America--

American boxwood; and differentiated from the slower growing box grown in England, which was logically called "English boxwood". "American" actually denoted *Buxus sempervirens* and "English" denoted *Buxus sempervirens* 'Suffruticosa', but few knew that and didn't care. Our choice of the word "American" is really more about *where* the plant is and was grown for centuries, but tells us little else. But to our early gardeners, "where it was growing" was a designation of high importance and had everything to do with what the plant was called. Our forefathers in their

patriotic fervor made *B. sempervirens* their own! The name also denoted a plant that looked slightly different from "English boxwood"; it had a different growth habit, and that was helpful in discussions involving both American and English boxwood!

"American boxwood" is still an accepted usage for historians and landscape architects who are considering the boxwood chosen for use in early Amer-

ica by our founding gardeners. Those gardeners put together a peculiarly American horticulture, some plants native, some borrowed—and many tagged with a nickname that worked just fine! But it's a good idea for those using the vernacular to know the Latin name of the plant being used for many obvious reasons: duplication, purchasing, propagation, etc. We've learned—often the hard way, that use of the proper Latin nomenclature is best – and that is a good thing.



American Boxwood (*BUXUS SEMPERVIRENS*) Photo - B. Saunders



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Memorial Day observance – National Cathedral 1930's.  
Note historic boxwood alongside Pilgrim Steps (*Cathedral Archives*)