

Wild Nuts

by William M. Cook

In recent years, I have gotten interested not only in conventional gardening, but also in foraging for food among native plants. When you read this it will be autumn, which is prime season for one of our most abundant wild food categories, which is nuts. Nuts are time-consuming to prepare by hand, but can be free to collect and rewarding to add to your kitchen store.

There are three major groups of native nut trees and shrubs you can look for. I have experimented with all three of them and will give you a rundown of what you can use them for and how, if you decide to give it a shot.

Black walnuts (*Juglans nigra*). Most people know English walnuts from jars of mixed nuts. English walnuts are introduced into the United States but won't survive our severe winters in Minnesota. Here we have our native species of walnut, which occurs naturally in the eastern states and has been



introduced elsewhere. Walnuts grow into large, attractive trees that also produce valuable wood. Black walnuts produce prolifically and nuts are easy to collect, but unfortunately they are harder to process, crack, and extract than their English cousins.

Black walnuts, for some reason, tend to produce a lot of nuts every other year, and then not much in between. In my neighborhood even-numbered years tend to be the "on" years, but things might be different where you live. Walnuts look like green balls growing on trees in the summer and early fall and then mature in September to October. In general you wait for walnuts to drop before harvesting, since ones on the tree are usually immature.

Also, nuts that drop early tend not to be any good, but I have seen exceptions.

Walnuts are easy to collect by hand—I collected around 4,000 of them from a couple of trees in Saint Cloud last fall. I found once that 569 fit in a 5-gallon bucket, and filling the bucket took only a few minutes. The work really begins after that, though. When ripe the green balls turn yellow, and then brown. The ideal time to remove the fleshy rind is when it is yellowish, since when it turns brown it exudes an inky liquid that stains everything brown, including your hands. Peel these rinds off with your hands (use gloves, if you care about the staining) or simply stomp on them until the hard inner nut squirts out. After this, it is a good idea to wash the nuts in a bucket to get most of the inky liquid and stringy rind off. It is best not to dump the discarded rinds in your compost pile, because walnut residue contains a chemical that retards growth of other plants. I dump rinds back in the woods, or you can put them in the trash.

Continued on page 2

What's Up in the Garden?

by Joan Andersen

Everything! On the day of the Art Fair, I took a tour of the Gardens to see the colors and design. I started in Munsinger Gardens, a shady place of tranquility by the Mississippi River. The river is very high due to the rains in northern Minnesota. Some places received over 10" of rain and the tributaries of the Mississippi are sending all that water our way. You should hear the roar of the water going over the dam by the greenhouse!

Munsinger is mostly shade, although there are spots of sunlight here and there. Everyone is familiar with hosta—the backbone of any shade garden. However, there are more wonderful shade perennials being added each year. Many of them love the environment, where they receive a little sun and are regularly watered. Some are chosen for their colorful foliage. I saw *ligularia* 'Brit Marie Crawford' which has

Continued on page 3

In this Issue

Wild Nuts	1-2
What's Up in the Garden?	1-3
The Well-Defined Apple	4
Does the Heat Impact Your Plants?	5
Book Review	6 - back cover
Art Fair in the Gardens	7
Moments in the Garden	7
Photo Contest	7

Does the Heat Impact Your Plants?

The Well-Defined Apple continued

him as a simple man who dressed in sack cloth and wore a cooking pot for a hat. He traveled throughout Pennsylvania, Ohio, and Indiana, planting apple trees. His traveling song was the old Swedenborgian hymn: "The Lord is good to me and so I thank the Lord, for giving me the things I need, the sun and the rain and the appleseed..." In real life he was planting nurseries so that settlers coming to the American western frontier could buy his apple trees and plant them in their new home.

Second is Sir Isaac Newton. One day he sat under an apple tree, so the story goes, and an apple fell, maybe on his head, maybe not. Observing this fall led him to think about and to eventually formulate the Universal Law of Gravitation. The implications for Newton's observation of a falling apple are expressed in poetic form by Ellen Bass:

If you've managed to do one good thing,
the ocean doesn't care.
But when Newton's apple
fell toward the earth,
the earth, ever so slightly, fell
toward the apple as well.

3 (the Apple) short for Big Apple...

The Big Apple refers to New York City. Originally in the 1920s the term "apple" referred to the race courses in and around New York City and to the prizes that were awarded. New York City was the Big Apple because it was so important and prosperous, the goal of all horsemen.

The apple is best defined outside a dictionary. It has meaning in our life, in our thoughts, in our pantry. It's apple season. Go get some apples. Polish one on your sleeve. Take a big bite. Feel the crunch, taste its sweet tartness. Eat it down to the core. Sit back and say, "Now, that's an apple!" A well-defined apple.

by Beth Berlin, University of Minnesota Extension

The recent extreme weather can certainly cause a toll on humans, and obviously have an impact on our pets and animals, but how about our garden plants? Drought and heat can cause stress to plants that may be greater than you realize. Taking the time to give your plants extra care before and during environmental stress is important for their health.

Plants photosynthesize and create their own carbohydrates, but the rate of photosynthesis is affected by temperature. In general, the rate of photosynthesis increases as temperature increases, but once temperatures reach around 95°F the rate actually decreases. This is important to realize because plants need to have successful photosynthesis to grow each season. An annual needs to grow rapidly enough to mature its flowers or fruit before fall, and a perennial needs to photosynthesize enough to put carbohydrates into its roots and reserves so it can survive the winter. Therefore, an extended period of extreme heat can be detrimental.

Often with heat waves, night time temperatures stay elevated as well. This causes the plant to have higher levels of respiration—the process in which a plant breaks down the carbohydrates to provide itself energy. If the daytime temperatures are high enough to cause a decrease in photosynthesis and the night temperatures are high enough to cause an increase in respiration, the plant is unable to replenish. This results in the plant having to use its energy reserves, which should be going towards growth, flower or fruit maturity, or winter reserves.

Another issue for plants in heat waves is that it is common they do not have enough water to complete the process of transpiration. This is where water taken from the roots is exported throughout the plant with important nutrients attached. The water then will exit the plant through small holes called stomata. If there isn't enough water available for this process, the stomata close and the plant is not able to cool itself down as the water exits its leaves. This will result in sunscald, where growth of the plant tissue stops, leaves will drop, or the plant may even die.

Gardeners should be aware of this and provide adequate moisture to their plants. This may involve watering pots several times a day. Relocating sunny pots to a shaded area might also help the plants in the extreme weather. Mulching plants with a shredded or chipped wood will help keep moisture in the soil as well as keep soil temperatures cooler. Composted or shredded newspaper is also an option in vegetable gardens. It is important to do this prior to the heat wave for it to be more effective.

Finally, don't forget about the trees and shrubs. Extreme drought or heat can stress them as well, which may not be as obvious right away but instead breaks down their own defenses and makes them more susceptible to disease and insect infestations. An example would be borers, like the pine beetles, which often cause damage due to their infestation but will not be evident for another year or more.



“like” us on
facebook

We've Gone Social!
**LIKE our Facebook page Munsinger
Clemens Botanical Society**

www.munsingerclemens.com

Book Review

by Idella Moberg



Wulf, Andrea. *The Invention of Nature: Alexander von Humboldt's New World*. Alfred A. Knopf: New York, 2015.

In *The Invention of Nature*, Andrea Wulf connects us with some great thinkers, artists, and scientists who influenced Alexander von Humboldt and some who were influenced by him. She intends to rediscover Humboldt and to “restore him to his rightful place in the pantheon of nature and science.” It is her quest “to understand why we think as we do today about the natural world.”

The book is divided into five parts, spanning Humboldt’s life and career. In Part I Wulf describes the world into which Humboldt was born in 1769, the same year as Napoleon Bonaparte. Humboldt’s family was wealthy and aristocratic Prussian, but he had no interest in following in his parents’ footsteps. He wanted to travel and to study nature. He sought to discover how the world worked. He studied finance and economics and mining. As a young man he met botanists, explorers, artists, and thinkers. Alexander and his brother William joined a circle of friends that included the playwright Friedrich Schiller and Germany’s greatest poet Wolfgang von Goethe. They discussed the question of how to better understand nature—by means of rational thought or through experience. Goethe believed that objective truth could only be attained by combining sensory perception with one’s power of reasoning. This way of thinking changed Humboldt’s approach. He began to bring together his exact scientific data with his emotional response to what he was seeing. Being with Goethe gave Humboldt “new organs” for seeing and understanding the natural world.

Part II relates Humboldt’s five years of travel and exploration in South America with the French field botanist Aime Bonpland, beginning in 1799. There he saw nature with both his head and his heart. He collected astronomical data. He compared the evaporation of rivers and lakes across the world and studied the effects of cutting down forests for agriculture. He developed the idea of human-induced climate change. He believed that humankind’s power to destroy the environment could have catastrophic consequences on the land and the climate. He also saw firsthand how devastating Spanish colonization had been, not only for the people but for the land itself. Humboldt observed that many things are connected with a single plan. He visited the Spanish botanist Jose Celestino Mutis and his large library. He climbed volcanoes to determine if they were linked together and to find out how the earth was created. He compared the mountains in Europe with those in South America and saw nature as a “web of life and a global force.” Everything was interwoven as with “a thousand threads.” Nature, he concluded, was a living whole.

Before returning to Europe he went to Washington DC and met Thomas Jefferson, who had recently acquired the Louisiana Purchase and had sent Meriwether Lewis and William Clark on their expedition across North America. Lewis and Clark were to collect plants, seeds, and animals; to report on soils and agricultural practices of Native Americans; and to survey land and rivers. Jefferson saw the United States as an agrarian nation of farmers with an emphasis on individual liberty and rights of individual states. Humboldt told the Americans what they wanted to know about Mexico. They gave him information about the United States.

Part III lays out Humboldt’s life on his return to Europe. He lived in Paris, a great science center, and Berlin, where he became chamberlain to Prussian King Friedrich Wilhelm IV. In Paris and Rome he spent time with the Venezuelan Simon Bolivar, who would later lead revolutions in South America. The two men spoke of the South American land, of politics and revolutions. He wrote books about his travels and the relationships between plants, climate, and geography.

In Part IV, Wulf describes the spread of Humboldt’s ideas and influence. He lectured at the university in Berlin about correlations that spanned the universe. He traveled through Russia with the idea of comparing geological information there with what he had collected in South America. In his published results of the expedition he listed three ways humans affected the climate: deforestation, ruthless irrigation, and “great masses of steam and gas” produced in industrial centers. Humboldt was the first person to look at nature and humankind in this way. When Charles Darwin read Humboldt’s personal narrative of his Latin American expedition, he was inspired to take his own voyage on her Majesty’s ship Beagle. In *Cosmos*, Humboldt took his readers from outer space to the earth’s surface, into its inner core, throughout human history. He defined climate as a “system of complex correlations between the atmosphere, oceans and landmasses.” The book was inspiring to all kinds of people, like Henry David Thoreau, Ralph Waldo Emerson, Samuel Taylor Coleridge to name just a few. Humboldt’s work influenced them in their own work.

Part V deals with Humboldt’s evolving ideas. He helped young scientists, artists, and explorers. He wrote and received thousands of letters. He had become the most famous scientist of his age. As an old man he lived modestly in his rented apartment in Berlin and had many visitors. After his death his influence continued to spread. George Perkins Marsh and his wife traveled through Europe and the Middle East and Egypt, and

Continued on back cover



Art Fair in the Gardens

by Joan Andersen

The weather forecasters warned us for a week about the hot humid weather predicted for the Art Fair. We were ready for it, but it was not nearly as bad as it was supposed to be. We had mostly overcast skies and a light breeze that kept the heat below 90° for most of the day, and we were actually grateful! Unfortunately, the weather prediction probably kept some visitors away.

We have the most beautiful setting for an Art Fair. Booths are set up on the grass under the trees among the flowers. The Gardens were at their blooming best and everyone enjoyed the flowers, which grow very well in this hot weather (better for plants than people). It was comfortable for artists, food vendors, and customers—no hot asphalt roads for us! This year Carlos Quinche played his flutes in a place close to the Gift Shop and his music was perfect for the setting. Down by the river, Pushing Chain, Cristina Seaborn, and Cathie English played their music to appreciative listeners. Many people enjoyed food from Erbert's and Gerbert's, Good Earth Food Co-op, West Side Liquors, and Kettle Licious Kettle Korn.

The next Art Fair will be on Thursday July 20, 2017.

Moment in the Gardens

by William M. Cook

As I walk through Munsinger Gardens along the Mississippi, I often look up at the winding paths and hosta gardens and smile as I enjoy the scenery today, but also it brings back memories of prior years. One of my favorite memories involves a little bridge towards the north end of Munsinger Gardens, which crosses a little "river" that drains out of one of the water features there under the oaks. When our son was little, around three or four years old, he loved the story of the Three Billy Goats Gruff. Remember, this is the story of three goats who tried crossing a bridge to eat the tasty grass on the other side, but were blocked by the troll who lived under the bridge. This caught Danny's imagination in a great way, and he loved to play the crafty goat who outsmarted the troll and made it across the bridge. On summer afternoons we walked the few blocks down to the Gardens, walked around and looked at flowers, but inevitably we ended up at that little bridge, and I took on my recurring role as the Troll for 10, 20, or 50 repeats of the game. If you visit Munsinger and the bridge, you too can play the Troll Game.

Photo Contest

by Mary Margaret Bjorklun



Although the Gardens display a different scene of beauty throughout the year, summer and fall display the peak of vibrant colors. What a pleasure to stroll through the variety of formal and informal plantings where every day presents something new to delight our senses. It would be interesting to see photos submitted to Photography in the Gardens that would represent all four seasons.

A few comments about the contest rules might clarify some questions.

1. Why are close-ups of flowers not allowed? All photos entered in the contest must be taken in Munsinger Clemens Gardens during the current contest timeline. Close-ups of flowers may be spectacular but it would not be possible for the Gardens staff or contest judge to be certain that the flower pictured was found growing in the Gardens. Some other information must be present in the photo to prove that it was indeed taken in our beautiful Gardens.
2. Fees for submission of photos are \$5 per photo for youth and \$10 per photo for adults. Why is there a submission fee? The photo contest is sponsored by the Munsinger Clemens Botanical Society. There are three purposes of this society: (1) To plan activities which encourage visitors to enjoy their Gardens experience. The activities sponsored this year are the photo contest through November 5, Music in the Gardens on alternate Sunday afternoons during the summer months, and Art Fair in the Gardens. (2) To help cover the expenses of the photo contest. (3) To donate to the Gardens monies for supplies and equipment. Committee members hope the submission fee is modest enough to be affordable.
3. Where can I view the winning photos? The winning photos have been on tour around Saint Cloud at the Convention Center, the Saint Cloud Hospital, Centra Care Plaza, Quiet Oaks Hospice House, Whitney Senior Center, US Bank, and Paramount Theatre. In August and September they will be at Saint Cloud Medical Group, in October at the Waite Park Public Library, and in November at the Saint Cloud Public Library.

You photo enthusiasts can plan to frequent the Gardens until November and expand possible photo contest entry choices. Contest information is available at the display sites, Lake George Municipal Complex, and online at www.munsingerclemens.com. Winning photo awards will be presented at a public reception at the Saint Cloud Public Library on November 19 at 3:00 pm.

protection of the environment. Madison and Bolivar saw protection of trees as an economic necessity. Thoreau called for the preservation of forests for recreation. Ernst Haeckel studied and drew the beautiful single-celled marine organisms visible only under the microscope. He named Humboldt's discipline "ecology." John Muir read Humboldt, became a political nature activist, campaigned for the creation of a national park in Yosemite, and co-founded the Sierra Club, which has become America's largest grassroots environmental organization.

Andrea Wulf tells the story of Alexander von Humboldt similarly to the way he himself told the story of nature. His life and work were a network of brilliant scientists, artists, and explorers. He brought people together from disparate disciplines to talk with each other about nature and the universe. He made science accessible and popular to people in all walks of life. In his lifetime Humboldt was famous for his visionary worldview. Today we take his ideas for granted, without realizing how important and amazing they were in his time. Wulf wants us to understand and appreciate why we see nature as we do. She suggests that now may be the moment to reclaim him as our hero.

MCBS Board of Directors

Co-Chairs

Joan Andersen
Jill Florek

Mary Margaret Bjorklun

Sam Calvert

Elaine Carter

William Cook

Chris Felsch

Donna Gorrell

Jack Kelly

Nia Primus

Bruce Regan

MCBS newsletter is published four times a year. The next issue will be in December.

Articles and comments are welcomed.

Membership Questions

lakesidegirl@hotmail.com

Coordinator & Editor

Donna Gorrell • 252-8834

dgorrell@stcloudstate.edu

Layout & Design

Jill Lucas Design • 743-4471

jill@jlucasdesign.com

www.MunsingerClemens.com

www.munsingerclemens.com

St. Cloud, MN 56302

PO Box 7594



Non-Profit Org
U.S. Postage
PAID
St Cloud, MN
Permit #1446