

The Midwest Native Plant Primer

Introduced By Candy Bartol

The Friends of the Eloise Butler Wild Flower Garden are honored to have scheduled well known landscape gardener Alan Branhagen to speak at our Annual Members Meeting October 10, 2023 at the Theodore Wirth Chalet Fireside Room. We are happy as well to count him among the Friends of the Garden.

It is easy enough to accept the information provided by the plant expert who maintains extensive personal gardens in both Minnesota and Missouri and has made a 30-year career with a series of impressive gardens located in the Midwest.

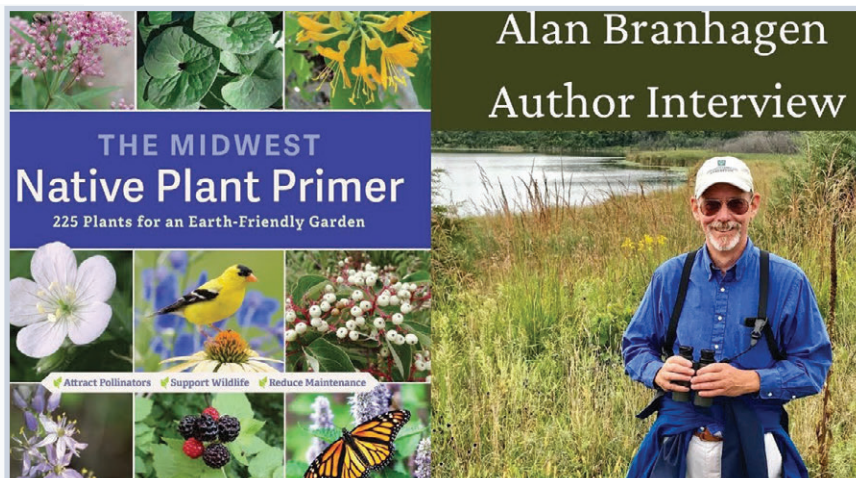
The career of Alan Branhagen is based on earning Bachelor's and Master's degrees in Landscape Architecture and then embarking on a career which has taken him to several states in the Midwest. After recently completing six years as Director of Operations at the Minnesota Landscape Arboretum in Chaska, Alan is now Executive Director of Natural Land Institute in Rockford, IL. He has also published three books, two on midwestern plants and another dealing with butterflies.

The Midwest Native Plant Primer: 225 Plants for an Earth-Friendly Garden, written by Alan Branhagen and published by Timber Press in 2020, is his most recent offering. Its tone is set in his Introduction with the first sentence in boldface: **"This is a book about plants native to the heartland of North America."** He follows that opening with his goal of encouraging the successful planting of native ones plus advice about how to accomplish this goal successfully. The book is divided into three sections with its heart devoted to 225 plants which grow well in a midwestern climate.

The first section presents his Introduction followed by information about place, selecting native plants, and designing gardens using native plants. In this first section Alan Branhagen defines native plants as ones that grew naturally before people started intervening with actions like farming crops and cutting down forests. Land use, climate, and soil, he says, are essential for determining which plants can be labeled as native through time. He asserts in his Introduction that native plants sustain all life in their surroundings from humans and animals to tiny insects.

The main section of this book contains a color-coded compendium with information on native plants and trees worth planting in the Midwest. He first details his reasons for choosing the four types of plants that follow, dividing his choices into native trees, shrubs, ground covers, as well as perennials and vines. Each

native plant entry contains a stunning photo with accompanying text about this choice. The beautiful photos contained throughout this book were taken by the author himself with only a handful of exceptions. Most entries are half a page long, though some cover a whole page. Each color-coded section is organized alphabetically, starting with Allegheny serviceberry in the Tree section and ending with the Zigzag iris in the last one, Perennials and Vines.

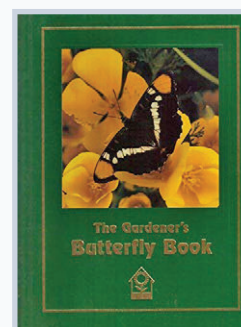


Alan Branhagen Author Interview

The third and briefest section of the book concludes with a zone chart, a list of several resources and acknowledgements, followed by a useful index at the end.

All in all, *The Midwest Native Plant Primer: 225 Plants for an Earth-Friendly Garden* is an impressive, environmentally-sound piece specific to the Midwest where we live.

When Friends President Jennifer Olson announced he had agreed to be our speaker this year, she related the story that, while attending a recent Friends event held at her house, he managed to spot three unusual butterflies in her yard. It is not surprising then that he has devoted a book to butterflies which looks at the role of these pollinators in successful gardens. *The Gardener's Butterfly Book* was published by National Home Garden Club in 2001.



Access any of these books to find information written in his easily-accessible style. Get to know more about these topics through an interview with Alan Branhagen presented online, which is designed for plant enthusiasts and home gardeners. Look for it under the title *Prairie and Native Plant Careers* from the Missouri Prairie Foundation at moprairie.org or see a video accessed on [YouTube](https://www.youtube.com/watch?v=...). ❖

Candy Bartol is a Friends Director. The photo is the title of the Branhagen video interview reference in the text.

President's Greeting

By Jennifer Olson

Fall is upon us with rain and record-breaking heat. Although many blooms have disappeared, I look forward to seeing the Witch Hazel flower, the last to bloom in the Garden.

On August 30-31, volunteers of the Friends staffed a display about the Eloise Butler Wildflower Garden and Bird Sanctuary in the Minnesota State Fair Horticulture Building.



The 2023 State Fair Exhibit. Photos on the wall display by Bob Ambler; flower display and exhibit photo by Jennifer Olson.

Photographs by Bob Ambler highlighted the spring ephemerals, summer's colorful blooms and fall's foliage changes, witch hazel and asters. Potted plants and a representative bird photo captured the three ecosystems of the Upland Meadow: Butterfly Milkweed, Bigleaf Aster, Stiff Sunflower, and Indigo Bunting; the Wetland: Tamarack tree, Great Blue Lobelia, and the Common Yellowthroat; and the Woodland: Northern Maidenhair, Zigzag Goldenrod, and the Scarlet Tanager. Vases, possibly the same ones that Eloise used in her State Fair Exhibits showed off what was blooming that week: goldenrods, turtleheads, Cardinal Flower, Cup and Compass Plants, Plain Gentian, Buttonbush seed pods, Bugbane, New England Aster, and Obedient Plant.

Displayed acorns represented the five species of oaks, all indigenous to the Garden: Northern Red Oak, Eastern White Oak, Northern Pin Oak, Burr Oak, and Swamp White Oak. The public was fascinated by the tray of buckeyes, offering a variety of identification guesses.

Eloise Butler had exhibits at the State Fair starting in 1910 through at least 1918. From the September 5, 1911, *Minneapolis Morning Tribune*: "An interesting exhibit is that of the wild 'Botanic' garden conducted by Miss Eloise Butler and Miss Mary Meeker (Eloise's student, Central HS Class of 1893). Not a tame species of plant is to be found in the exhibit as everything was plucked from its natural wild bed.

More than 200 photographs taken by Miss Meeker are being shown and there are more than 100 varieties of wild plants. There are 60 species of trees, 100 of shrubs and about 500 herbs." In November 1911, Eloise Butler wrote to Theodore Wirth: "A second exhibit of the Garden was made at the State Fair. The flowers and photographs were labeled with both the common and the scientific name. The exhibits of wild flowers correctly named took the first premium. On account of its merit, I have been encouraged to believe hereafter the exhibit will be a permanent feature of the Fair." We did her honor.

A trifold show cased this history including 11 of Mary Meeker's photographs, images courtesy of the MPRB Archives. The majority of Miss Meeker's photographs are black and white, but some she hand-painted the glass negatives before printing them.

About half of fairgoers engaged had not heard of the Garden. Less than half of those who were familiar with the Garden had actually visited. Within days, a couple visited the Garden because of the Eloise Butler Exhibit at MN's Great Get Together. Hopefully more will discover this wild botanic garden. See you at the Garden, Jennifer. ♦



Friends Members and exhibit volunteers, Dave Harris and Ward Bauman. Photo by Melissa Hansen



Photo of White Turtlehead, *Chelone glabra*, from Eloise Butler's 1911 State Fair exhibit. Photograph by Mary Meeker, image courtesy of the MPRB Archives.

2023 Wildflower Garden Highlights

from Curator Susan Wilkins

It has been a busy season at the Wildflower Garden. As I look back on 2023, I notice how each year at the Garden brings new challenges and new joys.

Visitation and program participation has steadily increased over the past 20 years. We are at an all-time high with overall engagements and program participation here. Through October 1, we have tallied 45,304 visitor engagements (welcomes, conversations, information sharing) between visitors and the education staff and volunteers working at the Kiosk, Visitor Shelter, and on the trails. So far this season over 4,000 program participants have enjoyed a tour or program led by Garden staff as well.

The Wildflower Garden seasonal education staff of ten have done a tremendous job of sharing their knowledge and enthusiasm for the natural world each day with people from our community and from around the country and globe who visit. We are so fortunate to be able to recruit talented seasonal, part-time education staff each year who are the backbone of our education program at the Garden.

Wildflower Garden seasonal field staff have continued the legacy of care and tending to the Garden's 15-acre native plant collection with great energy and effort. A space like this looks deceptively self-maintaining, but it is not. Without these dedicated and talented field staff, the Garden would be an entirely different space and not nearly as biodiverse or beautiful.

The Garden's volunteers are at the very heart of the spirit of the Garden. Docent volunteers provide a warm welcome and helpful information about the Garden to the visitors at the Kiosk (new in 2022) and Visitor Shelter. Field volunteers in the FIAPG and Legacy volunteer programs provide essential work in the EBWG Volunteer Stewardship Area, improving the ecological health of this area year after year. The Friends Board, also volunteers, provides a variety of supportive services to the Garden, always seeking to promote the wonders of the Wildflower Garden and to provide funding for special projects. In addition, corporate and

non-profit groups volunteer with staff to assist with a variety of projects each year.

Several new infrastructure-focused improvement projects have been completed this season—

- A small office space was created out of a storage area in the Martha Crone Visitor Shelter to accommodate the urgent need for a dedicated workstation for the Garden's education staff.
- Two new signs have been designed and installed for visitors along the entrance drive and parking lot with updated and accurate information about the Garden.
- One bathroom unit has been labeled for all gender use and the bathroom floors have been painted.
- The parking lot has been re-striped and additional directional information has been added to the drive entrance and parking lot to help inform people about the one-way nature of the drive.
- The staff tool house building has been updated to create a more functional space.

Out in the field, the 2023-24 bee census is underway and being completed by Dr. Elaine Evans and her team from the U of MN. The Friends of the Wildflower Garden and MPRB are sharing the cost of this project.



Dr. Elaine Evans of the U of M Bee Lab.
Photo Sarah Whiting

Another significant project for the Garden

this season is the addition of a pollinator meadow at the entrance to the Garden off of Theodore Wirth Parkway. The project is part of the Turf to Pollinator Garden Program funded by the Minnesota Environment and Natural Resources Trust Fund (ENRTF). Wilderness in the City and Metro Blooms are project partners with the Minneapolis Park and Recreation Board (MPRB). The aim of this program is to create pollinator habitat in areas that had been planted as turf within Regional Parks of the Twin Cities Metro Area. By the end of October we will have planted over 11,500 plants in the new meadow! The tremendous number of volunteers, MPRB staff, Conservation Corp of MN & IA staff and youth, Mississippi River Green Team youth, and project partners involved in making this a reality has been remarkable. It's taken a village of enthusiastic, supportive people to bring this project to fruition.

Wishing you a winter season of good health and good cheer.❖



Development of the pollinator meadow at the entrance to the Wildflower Garden. Photo G D Bebeau

The Clean Energy Future is Arriving

by Colin Bartol

It seems like all environmental news is depressing. For years we have been told about the ice caps melting, and the news this summer of record temperatures shows that what we have been warned about is happening.

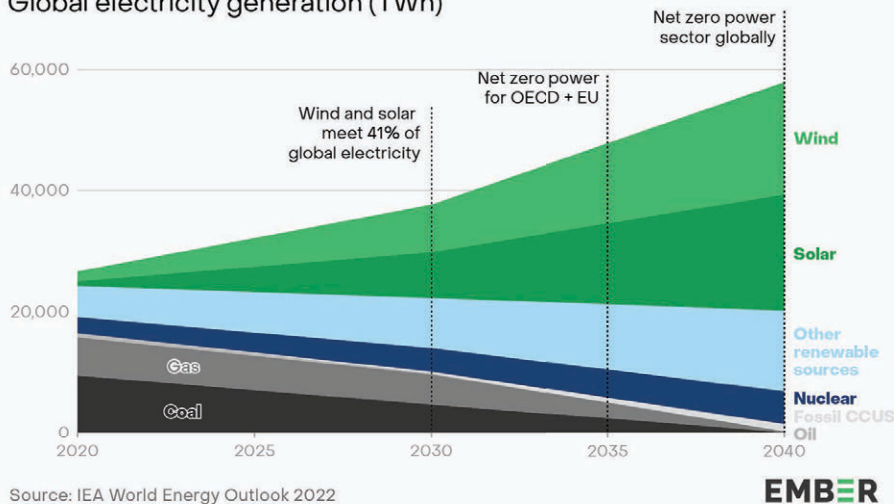
Hidden under all of these stories is a different one that is taking shape. There have been massive changes in how we produce energy, with renewables on track to replace coal as the world's largest source of energy by 2025. This year, according to I.E.A., worldwide \$1.7 trillion will be invested in clean energy, compared to \$1 trillion in fossil fuels. Globally, more money is being invested in solar power than in drilling for oil. We may be coming to a tipping point where renewables are so much cheaper than fossil fuels that the transition to them will happen much faster than expected. This change is happening in the US, Europe, and China, all the biggest sources of CO2.



Xcel Energy's 100mw solar array in Chisago County.
Photo Brian Peterson, Star Trib

Power sector transition to net zero by 2040

Global electricity generation (TWh)



In the US this year, 23% of all electricity is expected to come from renewable resources, up from 13% a decade ago. The cost of generating a megawatt is \$180 for nuclear, \$117 for coal, \$70 for natural gas, \$60 for solar, and \$50 for wind. This savings for using renewables is driving changes in all states. The cost for solar power has dropped by 83% since 2009, fueled by scientists and engineering work along with strategic investments by the government, including the Inflation Reduction Act. The investments in clean energy are rapidly increasing, with 6.1 gigawatts of solar and wind coming online in Q1 of this year, up 47% from a year ago.

With the war between Russia and Ukraine, energy changes were known to be required. Although much media attention was focused on fossil fuels, the EU has made strategic investments to move away from fossil fuels.

In May, for the first time ever, the EU generated more electricity from wind and solar than from fossil fuels.

China, which already leads the world in the amount of electricity produced by wind and solar, is expected to double its capacity by 2025. Last year China invested \$546 billion in clean energy, by far the most in the world. Coal still is by far the primary source of energy for China, and, because of its energy needs, the volume of CO2 emissions continues to increase, despite all of this investment in clean energy. However, if China continues to increase use of clean energy continue, this will change.

We are not where we need to be to reverse climate change, but we are slowing it down. We are also seeing participation occurring from the largest polluters. If trends continue and the growth in clean energy continues to grow exponentially, we may have reached the tipping point where we may avoid the worst climate scenarios. It is nice to have some hope after years of bad environmental news. ❖

Colinn Bartol is editor of *The Fringed Gentian*™



Wind farm photo: Pexels/Ricky Esquivel



White underwing resting during the day on a tree. Photo: EBWG Naturalists

A Summer of Moths

by Keygan S. S. McClellan

Beginning my summer season in the Garden, I hadn't expected to be so preoccupied by moths. At times, they wrested my attention by force, their striking patterns and behaviors a dramatic testament to the diversity of insect life.

I've seen some online sources describe sphinx moth caterpillars as sausage-like in shape, size, and nutritional value (to birds). In early June, the first time I beheld one of the soon-to-be-many white-lined sphinx moth caterpillars, it had tucked its mottled, finger-sized bulk conspicuously against the stem of a showy, lemon-colored prairie sundrop. There were more, and they didn't stick around for long. Within days, literal handfuls (the naturalists and natural resources team tried to move them to safety) were doggedly crawling along the meadow paths, searching for soft sand in which to bury themselves pre-pupation. Although I can't be certain if they were ultimately successful, the species maintains a presence in the garden: I saw an adult white-lined sphinx at the beginning of September.

Other moths made themselves known over the season: Abbott's sphinx caterpillars, bejeweled by dark eyespots, clinging to Virginia creeper leaves; white-striped black moths' confetti-fluttering through wet meadows alongside their larval food (jewelweeds); inchworms (the larvae of geometer moths) dangling from silken threads; and hummingbird clearwings sipping delicately from prairie flowers.



Hummingbird clearwing among false blue indigo leaves. Photo: EBWG Naturalists

During the August 10th Star Party, we set out a mothing station in an attempt to witness some of the Garden's secretive nocturnal moths—perhaps one of the underwing moths I'd seen on the shelter wall that day. To go “mothing,” you can hang a white sheet and illuminate it with ultraviolet light (a blacklight), gradually attracting moths and other insects through the night.

Of course, the wildlife always has their own plans. During its relatively short window of post-dusk operation, the mothing station reportedly attracted just one “large brown moth.” For best results, it is recommended to leave a mothing station for several hours—well into the deeper part of the night, and unfortunately outside Garden operating hours.



Abbott's sphinx caterpillar on a fed-upon Virginia creeper leaf. Photo: EBWG Naturalists

At the tail end of summer, a visitor showed off a photo they'd taken in the Garden of an enormous, white-spotted, orange caterpillar, which I identified as a Pandora sphinx moth. I had never seen

anything like it. The living world has an incredible capacity for constant discovery in every group of organisms and every physical space, and I know the Garden's moths will continue to surprise anyone curious enough to look. ❖



Keygan McCellan is a Wildflower Garden Naturalist. Article appears courtesy of the Minneapolis Park and Recreation Board.



White-lined sphinx caterpillar chewing a stem. Photo: EBWG Naturalists

Japanese Barberry: An Edible Invasive

by Cheryl Batson

Japanese barberry and other barberry plants were brought to the United States by Europeans in the 1860s to late 1870s as a deer resistant landscape plant with interesting fall foliage. It is found in the woods and along woodland edges. It is native to Japan and China.

Japanese barberry is quite an easy bush to identify. The known look-a-likes are other edible barberries and cultivars which, in fact, taste a bit less tart. Common barberry, which is also considered invasive, and American barberry, considered uncommon, are the two highlighted. The spatula shaped leaves are green or maroon/purple which widens to oval. The oblong, red berries are best harvested later in the fall or even winter as they sweeten more over time. The Minnesota Department of Agriculture has a good description at: <https://www.mda.state.mn.us/plants/pestmanagement/weedcontrol/noxiouslist/japanesebarberry>.



Mature berries. Photo Gorillo Chimpo CC-BY-SA 4.0

The mature edible red oblong berries are $\frac{3}{4}$ inch to 2 inches long on all barberries. Japanese barberry has a single thin, straight, very sharply pointed spine or thorn where the leaf attaches. Common and American barberry have 3 thorns.



Common barberry, note the 3 thorns per leaf node and finely toothed edges of leaves. Photo: Leslie J. Mehrhoff, University of Connecticut

The Japanese barberry leaf has smooth edges whereas the common and American have toothed edges. It is more difficult to distinguish American barberry from Common barberry. The American barberry leaves are coarsely toothed and have fewer than 10 teeth per leaf, while Common barberry leaves are finely toothed with 20-30 teeth per leaf.

Collection of the berries starts in August and continues through the winter. It tends to be sweeter when collected later. The one to three seeds should be removed from the berry prior to consumption. The berries can be eaten fresh or cooked and are high in antioxidants, vitamin C and

vitamin K. Due to the high Vitamin K, people on blood thinners should discuss with their doctor prior to consumption. Barberry has a sour tart cranberry flavor with slightly sweet undertones and can be used as a substitute in any cranberry recipe. The berries can be used in place of lemon in a pinch. Iran has the strongest tradition of cooking with barberries using its native common barberry as described in the recipe below. It can be used in stews, salads, oatmeal, and rice dishes. The leaves can also be harvested for tea.

Cheryl Batson is a Minnesota Master naturalist, writer and previous member of an invasive species Rapid Response Team.



American barberry is finely toothed compared to the coarsely toothed common barberry. ©Hugh and Carol Nourse

Ingredients

- 4 chicken pieces
- 2 cup of basmati rice
- 1 tablespoon saffron
- 2 tablespoons of regular yogurt
- 3 tablespoons olive oil
- 2 teaspoon turmeric
- 2 teaspoon coriander
- 1 teaspoon cinnamon
- 1 teaspoon cumin
- 1/2 teaspoon pepper
- 1/2 teaspoon cardamom
- 2-4 tablespoons sugar
- 1 yellow onion
- 1/2 cup barberries
- 1 tablespoons pistachios or almonds.

Dish photo - Pixel Studio, CC-BY-SA 4.0



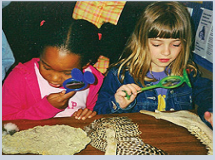
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Directions:

Marinate chicken overnight. Remove from fridge, drizzle melted butter, and season it. Stuff it, tie the ends and tuck the wing tips. Roast it until well cooked. Clean and rinse dried barberries. Fry onions until golden brown. Add barberries and stir. Then add sugar. Cook the rice. To make rice crust, spread a mixture of cooked rice, yogurt, and saffron water over oil or butter in a pot to form a golden-brown crust. Steam the rice for 15-20 minutes. Assemble the dish by layering the cooked saffron rice with the barberry mixture. Top with nuts.

Notes for Our Donors

Garden and Friends Activities



Help us replenish our Student Transportation Fund. We spent \$3,300 to bring 12 classes of kids to the Garden this past season. We want to raise \$3,500 for next year. Donate on [GiveMN](#) or via our [website](#).

A Change of Name

After debating this and stalling on it since 1968, we have modified our name so that the two words "Wild" and "Flower" are now "Wildflower." This was proposed back then when the MPRB changed the name of the Garden by doing the same thing. Now we back in agreement. Expect implementation to be more timely.



It wears well - 30 years on

"I hope enough money can be found to add a wooden archway so that visitors may symbolically enter into the Garden."

Those words of Gardener Cary George expressed at a 1989 Friends design meeting about the new front gate for the Wildflower Garden led to the wood arbor now over the gateway. The gateway was completed in 1990 but it was 1992 before the Minneapolis Park & Recreation Board carpenters could add the arbor.

The significant affect of passing under the arbor cannot be realized today unless one pictures the gate without it, which opportunity was provided in 2017 when a falling tree crushed the arbor. The only salvageable piece was the inscription plank bearing the words "Let Nature Be Your Teacher." This too, was a suggestion of Cary George when words for the inscription were being suggested, they being a favorite Wordsworth quotation of Eloise Butler's from "The Tables Turned." Years afterward Friends member Betty Bryan said "It wears well."

So while the arbor is newer, the inscription carries foreword from the past. Look up when you enter and then pass into the Garden and bird sanctuary and be taught.

Support form

Pay on website or mail with a check payable to:
Friends of the Wildflower Garden, P O Box 3793, Mpls MN 55403

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Support the Friends Annually:

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Below: The front garden gate after a falling tree crushed the arbor in 2017.





The Fringed Gentian™

Friends of the Wildflower Garden
71 years - Dedicated to Protecting,
Preserving and Promoting
The interests of The Eloise Butler
Wildflower Garden and Bird
Sanctuary

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Interested in writing for us?

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www.friendsofeloisebutler.org



Alan Branhagen speaking at the Friends annual meeting on October 10. Photo Colin Bartol

The Eloise Butler Wildflower Garden and Bird Sanctuary comprises cultivated but naturalistic woodland, wetland and oak savanna environments. It is owned and operated by the Minneapolis Park & Recreation Board, located within the city of Minneapolis in Theodore Wirth Park on traditional Dakota homelands and, established in 1907, is the oldest public wildflower garden in the United States.



Twigs & Branches

Our monthly bulletin links you to short articles
about plants, the Wildflower Garden, and the
natural world.

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www.friendsofeloisebutler.org

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The Garden is open April 15 to October 15,
weekends only Oct. 15 - 31. Closed Mondays.
Hours: Tuesday - Sunday 7:30 AM to 6 PM;
Thursdays - 7:30 AM to 8 PM.