

## The United States Botanic Garden

The United States Botanic Garden (USBG) is a living plant museum. It is open daily from 10 a.m. to 5 p.m., free of charge. Exhibits interpret the role of plants in supporting earth's diverse and fragile ecosystems and in enriching human life. Established by Congress in 1820, the U.S. Botanic Garden is one of the oldest botanic gardens in North America. The Garden has been administered through the Architect of the Capitol since 1934. It is recognized as a museum and accredited by the American Alliance of Museums.

The U.S. Botanic Garden **Conservatory** is located on the National Mall at the intersection of Maryland Avenue and First Street SW, adjacent to the U.S. Capitol. The address is 100 Maryland Avenue SW, Washington, DC 20001.

The **Conservatory** houses permanent collections of plants from subtropical, tropical and arid regions and showcases orchids, medicinal, economic, endangered and Jurassic plants. From late May to mid-October, the Conservatory terrace features thematic displays.

The National Garden is adjacent to the Conservatory. It features a Mid-Atlantic native plant garden, Rose Garden, First Ladies Water Garden, Butterfly Garden and Amphitheater.

Bartholdi Park is across Independence Avenue from the Conservatory. Here visitors will find a tapestry of theme gardens surrounding the historic Bartholdi Fountain. The gardens suggest interesting plants and designs at a scale suitable for the home landscape.

Parking is not available at the U.S. Botanic Garden on weekdays. It is accessible by public transportation. The Federal Center SW Station on the Orange and Blue Lines of Metrorail is at Third and D Streets SW, four blocks from the USBG. Metrobuses 32, 34 and 36 stop at Independence Avenue and First Street SW, between the Conservatory and Bartholdi Park

Free 45-minute highlight tours of the U.S. Botanic Garden Conservatory may be available on the day of your visit. Please check at the Visitor Information Desk upon your arrival. To arrange a group tour, which requires a four-week advance reservation, please call (202) 225-1116. Groups of 10 to 25 adults may reserve a free 45-minute guided tour of the Conservatory Monday through Friday.

Visit our website at www.usbg.gov.

#### FOR MORE INFORMATION

General Information: 202-225-8333 Register for Programs: 202-225-1116

Request Tours: 202-226-2055 Plant Hotline: 202-226-4785

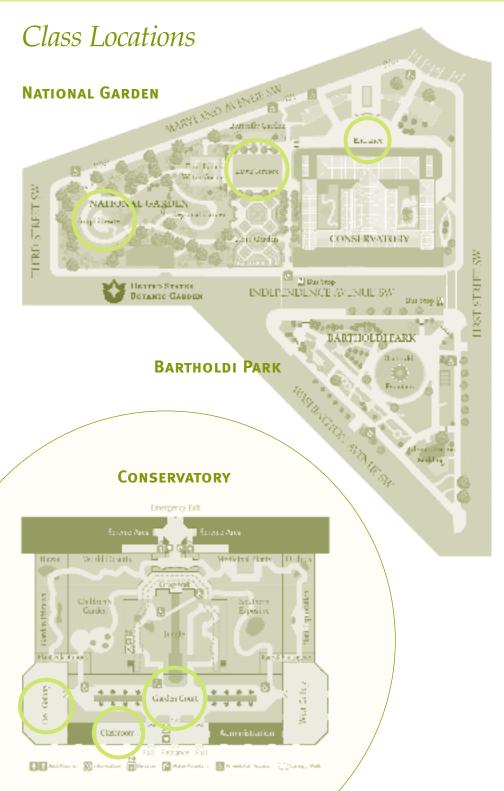
Volunteer Opportunities: 202-226-1047

## At a Glance

## Programs are listed by starting date.

Starting Date	Time	Title	Page	
JUNE				
1	2:00 p.m.	Thriving Curbside Gardens Lecture	11	
2	12:00 p.m.	Lunchtime Tour of the Conservatory	11	
4	12:00 p.m.	Lunchtime Tour of the Conservatory	11	
4	1:00 p.m.	Meet Our Carnivorous Plants Demonstration	12	
4	2:00 p.m.	The Art and History of the USBG Tour	12	
5	12:00 p.m.	The Kingdom of Rarities Tour	13	
6	6:30 p.m.	Deep Rooted Lecture	13	
7	10:00 a.m.	Lei Making for Kamehameha Day	14	
7	10:30 a.m.	Hawaii: A Botanical Paradise in the Middle of the Sea Lecture	14	
7	2:00 p.m.	A Grain of Wisdom Lecture	15	
8	2:00 p.m.	City Farming Workshop	16	
8	2:00 p.m.	Artist Tour: Botanical Paintings of the Mid-Atlantic	17	
9	12:00 p.m.	Lunchtime Tour of the Conservatory	11	
9	6:30 p.m.	City Farming Workshop	16	
10	12:00 p.m.	Botany and Chemistry of Baking Lecture	17	
11	12:00 p.m.	Lunchtime Tour of the Conservatory	11	
12	12:00 p.m.	Longing for Longans and Loquats Lecture and Tasting	18	
12	12:00 p.m.	The Kingdom of Rarities Tour Summer Concert Series	13 18	
12	5:00 p.m.	Our Prized Native Azaleas Lecture		
13	12:00 p.m.	Amber Waves of Grain Festival	19	
14 16	10:00 a.m. 12:00 p.m.	Lunchtime Tour of the Conservatory	19 11	
17	12:00 p.m.	Botany and Chemistry of Brewing Lecture	20	
17	1:00 p.m.	Medicinal and Poison Plants Tour	20	
18	12:00 p.m.	Lunchtime Tour of the Conservatory	11	
18	2:00 p.m.	The Art and History of the USBG Tour	12	
19	10:30 a.m.	Amber Waves of Grain: An Overview Tour	21	
19	12:00 p.m.	Summer Salads Cooking Demonstration	21	
20	10:30 a.m.	Pollinator Party	22	
20	12:00 p.m.	Pollinator Party	22	
20	12:00 p.m.	What Science Says about GMO Foods Lecture	22	
23	12:00 p.m.	Lunchtime Tour of the Conservatory	11	
25	12:00 p.m.	Lunchtime Tour of the Conservatory	11	
25	12:00 p.m.	Summer Salads Cooking Demonstration	21	
26	5:00 p.m.	Summer Concert Series	23	
27	10:15 a.m.	Curator's Tour of the National Garden	23	
27	12:30 p.m.	Perim-a-Tour of the U.S. Botanic Garden	24	
28	11:00 a.m	Songs and Dances of the Pua (Flowers) of Hawai'i	24	
30	12:00 p.m.	Lunchtime Tour of the Conservatory	11	
JULY				
2	12:00 p.m.	Lunchtime Tour of the Conservatory	25	
2	1:00 p.m.	Meet Our Carnivorous Plants Demonstration	25	
7	12:00 p.m.	Lunchtime Tour of the Conservatory	25	
9	12:00 p.m.	Lunchtime Tour of the Conservatory	25	
10	10:30 a.m.	Amber Waves of Grain: An Overview Tour	26	
10	1:00 p.m.	Creating Beautiful Containers Demonstration	26	
10	5:00 p.m.	Summer Concert Series	27	
12	10:00 a.m.	Fun with Photography Youth Workshop	27	
12	2:00 p.m.	Fun with Photography Youth Workshop  Drawing the Tropics Art Workshop	27 28	
14	9:00 a.m.	Lunchtime Tour of the Conservatory		
14	12:00 p.m.	Medicinal and Poison Plants Tour	25 28	
15 16	12:00 p.m. 12:00 p.m.	Lunchtime Tour of the Conservatory	25	
17	12:00 p.m.	Totally Tomatoes Cooking Demonstration	25	
19	10:30 p.m.	Botany and Chemistry of Baking Lecture	29	
21	12:00 p.m.	Lunchtime Tour of the Conservatory	25	
	22.00 p.m.			

22	12:00 p.m.	A Grain of Wisdom Lecture	30
23	12:00 p.m.	Lunchtime Tour of the Conservatory	25
24	5:00 p.m.	Summer Concert Series	30
25	12:00 p.m.	Totally Tomatoes Cooking Demonstration	28
26	10:30 a.m.	Urban Soils Workshop	31
27	2:00 p.m.	Urban Soils Workshop	31
28	12:00 p.m.	Lunchtime Tour of the Conservatory	25
29	12:00 p.m.	Botany and Chemistry of Brewing Lecture	32
30	12:00 p.m.	Lunchtime Tour of the Conservatory	25
AUGUST			
2	10:00 a.m.	Pickles Two Ways Canning Workshop	32
2	1:00 p.m.	Intro to Canning Tomatoes Workshop	33
4	12:00 p.m.	Lunchtime Tour of the Conservatory	33
6	12:00 p.m.	Lunchtime Tour of the Conservatory	33
6	1:00 p.m.	Meet Our Carnivorous Plants Demonstration	34
7	12:00 p.m.	A Grain of Wisdom Lecture	34
7	5:00 p.m.	Summer Concert Series	35
9	10:30 a.m.	Perennial Fruits and Berries Workshop	35
10	2:00 p.m.	Perennial Fruits and Berries Workshop	35
11	12:00 p.m.	Lunchtime Tour of the Conservatory	33
13	12:00 p.m.	Lunchtime Tour of the Conservatory	33
14	12:00 p.m.	Botany and Chemistry of Baking Lecture	36
15	12:00 p.m.	Crazy about Corn Cooking Demonstration	36
16	10:30 a.m.	Chocolate Chip Cookie Science Youth Workshop	37
16	2:00 p.m.	Chocolate Chip Cookie Science Youth Workshop	37
18	12:00 p.m.	Lunchtime Tour of the Conservatory	33
20	12:00 p.m.	Lunchtime Tour of the Conservatory	33
21	10:30 a.m.	Amber Waves of Grain: An Overview Tour	37
21	5:00 p.m.	Summer Concert Series	38
22	12:00 p.m.	Popping Peppers Cooking Demonstration	38
23	10:30 a.m.	Botany and Chemistry of Brewing Lecture	39
25	12:00 p.m.	Lunchtime Tour of the Conservatory	33
27	12:00 p.m.	Lunchtime Tour of the Conservatory	33
EARLY S	EPTEMBER		
2	10:30 a.m.	Seedlings	40
2	6:00 p.m.	Botany for Illustrators	40
3	10:30 a.m.	Sprouts	41
4	6:30 p.m.	Rust Never Sleeps Lecture	41
6	10:30 a.m.	The Fascinating World of Carnivorous Plants Lecture	42
6	2:00 p.m.	Managing the 4 P's Workshop	43
7	2:00 p.m.	Managing the 4 P's Workshop	43
12	12:00 p.m.	Grow More with Less Lecture	44
13	10:30 a.m.	Urban Agriculture: Sowing Seeds, Sowing Money	45
14	2:00 p.m.	Urban Agriculture: Sowing Seeds, Sowing Money	45
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## **JUNE 2014**

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 Thriving Curbside Gardens Lecture 2:00 p.m.	2 Lunchtime Tour of the Conservatory 12:00 p.m.	3	Lunchtime Tour of the Conservatory 12:00 p.m. Meet Our Carnivorous Plants Demonstration 1:00 p.m. The Art and History of the USBG Tour 2:00 p.m.	5 The Kingdom of Rarities Tour 12:00 p.m.	6 Deep Rooted Lecture 6:30 p.m.	7 Lei Demonstration 10:00 am Hawaii: A Botanical Paradise in the Middle of the Sea Lecture 10:30 a.m. A Grain of Wisdom Lecture 2:00 p.m.
City Farming Workshop 2:00 p.m. Artist Tour: Botanical Paintings of the Mid- Atlantic 2:00 p.m.	9 Lunchtime Tour of the Conservatory 12:00 p.m. City Farming Workshop 6:30 p.m.	Botany and Chemistry of Baking Lecture 12:00 p.m.	Lunchtime Tour of the Conservatory 12:00 p.m.	Longing for Longans and Loquats Lecture and Tasting 12:00 p.m  The Kingdom of Rarities Tour 12:00 p.m.  Summer Concert Series 5:00 p.m.	Our Prized Native Azaleas Lecture 12:00 p.m.	Amber Waves of Grain Festival 10:00 a.m.
15	16 Lunchtime Tour of the Conservatory 12:00 p.m.	Botany and Chemistry of Brewing Lecture 12:00 p.m. Medicinal and Poison Plants Tour 1:00 p.m.	Lunchtime Tour of the Conservatory 12:00 p.m. The Art and History of the USBG Tour 2:00 p.m.	Amber Waves of Grain: An Overview Tour 10:30 a.m. Summer Salads Cooking Demonstration 12:00 p.m.	Pollinator Party 10:30 a.m. Pollinator Party 12:00 p.m. What Science Says about GMO Foods Lecture 12:00 p.m.	21
22	Lunchtime Tour of the Conservatory 12:00 p.m.	24	Lunchtime Tour of the Conservatory 12:00 p.m. Summer Salads Cooking Demonstration 12:00 p.m.	26 Summer Concert Series 5:00 p.m.	27 Curator's Tour of the National Garden 10:15 a.m. Perim-a-Tour of the U.S. Botanic Garden 12:30 p.m.	28 Songs and Dances of the Pua of Hawai'i 11:00 a.m.
29	30 Lunchtime Tour of the Conservatory 12:00 p.m.					

## JULY 2014

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	
			Lunchtime Tour of the Conservatory 12:00 p.m.			
			Meet Our Carnivorous Plants Demonstration 1:00 p.m.			
6	7	8	9	10	11	1
	Lunchtime Tour of the Conservatory 12:00 p.m.		Lunchtime Tour of the Conservatory 12:00 p.m.	Amber Waves of Grain: An Overview Tour 10:30 a.m.		Fun with Photograph Youth Workshop 10:00 a.m. Fun with Photograph
				Creating Beautiful Containers Demonstration 1:00 p.m.		Youth Workshop 2:00 p.m.
				Summer Concert Series 5:00 p.m.		
13	14	15	16	17	18	:
	Drawing the Tropics Art Workshop 9:00 a.m. Lunchtime Tour of the Conservatory 12:00 p.m.	Medicinal and Poison Plants Tour 12:00 p.m.	Lunchtime Tour of the Conservatory 12:00 p.m.	Totally Tomatoes Cooking Demonstration 12:00 p.m.		Botany and Chemist of Baking Lecture 10:30 a.m.
20	21	22	23	24	25	2
	Lunchtime Tour of the Conservatory 12:00 p.m.	A Grain of Wisdom Lecture 12:00 p.m.	Lunchtime Tour of the Conservatory 12:00 p.m.	Summer Concert Series 5:00 p.m.	Totally Tomatoes Cooking Demonstration 12:00 p.m.	Urban Soils Workshop 10:30 a.m.
27	28	29	30	31		
Urban Soils Workshop 2:00 p.m.	Lunchtime Tour of the Conservatory 12:00 p.m.	Botany and Chemistry of Brewing Lecture 12:00 p.m.	Lunchtime Tour of the Conservatory 12:00 p.m.			

## **AUGUST 2014**

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	Pickles Two Ways Canning Workshop 10:00 a.m. Intro to Canning Tomatoes Workshop 1:00 p.m.
3	4 Lunchtime Tour of the Conservatory 12:00 p.m.	5	6 Lunchtime Tour of the Conservatory 12:00 p.m. Meet Our Carnivorous Plants Demonstration 1:00 p.m.	7 A Grain of Wisdom Lecture 12:00 p.m. Summer Concert Series 5:00 p.m.	8	9 Perennial Fruits and Berries Workshop 10:30 a.m.
Perennial Fruits and Berries Workshop 2:00 p.m.	Lunchtime Tour of the Conservatory 12:00 p.m.	12	Lunchtime Tour of the Conservatory 12:00 p.m.	Botany and Chemistry of Baking Lecture 12:00 p.m.	Crazy about Corn Cooking Demonstration 12:00 p.m.	Chocolate Chip Cookie Science Youth Workshop 10:30 a.m. Chocolate Chip Cookie Science Youth Workshop 2:00 p.m.
17	Lunchtime Tour of the Conservatory 12:00 p.m.	19	Lunchtime Tour of the Conservatory 12:00 p.m.	Amber Waves of Grain: An Overview Tour 10:30 a.m. Summer Concert Series 5:00 p.m.	Popping Peppers Cooking Demonstration 12:00 p.m.	23 Botany and Chemistry of Brewing Lecture 10:30 a.m.
24	Lunchtime Tour of the Conservatory 12:00 p.m.	26	Lunchtime Tour of the Conservatory 12:00 p.m.	28	29	30
31						

## EARLY SEPTEMBER

EARL SELLENSER						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	Seedlings 10:30 a.m. Botany for Illustrators 6:00 p.m.	Sprouts 10:30 a.m.	4 Rust Never Sleeps Lecture 6:30 p.m.	5	The Fascinating World of Carnivorous Plants Lecture 10:30 a.m. Managing the 4 P's Workshop 2:00 p.m.
7 Managing the 4 P's Workshop 2:00 p.m.	8	9	10	11	Grow More with Less Lecture 12:00 p.m.	Urban Agriculture: Sowing Seeds, Sowing Money 10:30 a.m.
Urban Agriculture: Sowing Seeds, Sowing Money 2:00 p.m.	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				



## Exhibits

## AMERICAN BOTANICALS: MID-ATLANTIC NATIVE PLANTS

## CONSERVATORY EAST GALLERY THROUGH JUNE 15

Mid-Atlantic native plants feed the biota around us, respond to the seasons and soils of our region, delight our senses and reinforce a sense of place. On display, find masterful, original botanical illustrations of some of the Mid-Atlantic's distinctive and beautiful plants that demonstrate why it is so crucial to conserve this vital part of our natural heritage.

### **AMBER WAVES OF GRAIN**

## CONSERVATORY TERRACE THROUGH OCTOBER 13

Fields of golden wheat have captured the imagination of many artists, who have featured wheat in painting and song. Wheat has also captured our palates, serving as the main ingredient in some of our most recognizable foods like bread, pasta, pizza, tortillas and cake. As one of the oldest domesticated plants, wheat laid the foundation for Western civilization and is now grown on every continent except Antarctica. Experience the beauty of this important plant on the U.S. Botanic Garden's Conservatory Terrace. Learn how the amazing diversity of wheat has led this simple grain to permeate our art, culture and cuisine.

## THIS LAND IS YOUR LAND

## CONSERVATORY EAST GALLERY JULY 1 THROUGH OCTOBER 13

*This Land is Your Land* showcases the beauty and diversity of plants in the United States as seen through the lens of a camera. From the mountain and praries to the farmlands and arid lands, this display features images by female photographers from the Garden Club of America.





## **Programs**

Programs are listed by start date.

#### **LECTURE**

### THRIVING CURBSIDE GARDENS

#### EVELYN HADDEN, NATIONAL SPEAKER AND AWARD-WINNER AUTHOR

Hellstrips, driveways, alleys, and other curbside locations present many challenges, but they can host thriving gardens. These spaces, though small, can have disproportionately large impact, making a beautiful first impression even as they provide beneficial services like stormwater absorption, dustbreaks, and pollinator habitat. In a presentation based on her new book *Hellstrip Gardening*, Evelyn Hadden showcases creative solutions, highlights curbside-worthy plants, and lays out strategies for addressing common challenges including street trees, poor soil, laws and covenants, unsightly equipment, pedestrian traffic, and more.

Date: Sunday, June 1 Time: 2 p.m. to 3 p.m.

**Location: Conservatory Classroom** 

FREE: Pre-registration required: Visit www.usbg.gov



#### **TOUR**

## **LUNCHTIME TOUR OF THE CONSERVATORY**

#### **USBG VOLUNTEERS**

What do manila folders, Chanel No. 5, vanilla and fossil fuels have in common? They all come from plants on permanent display in the USBG Conservatory. Take a tour with a knowledgeable guide who will connect the exotic plant world to everyday life. You might see bananas, cacao and coffee ripening on the tree or learn about the next big breakthrough in medicinal plant research.

Dates: Mondays, June 2, 9, 16, 23, 30

Time: 12 p.m. to 1 p.m.

Location: Tour meets in the Conservatory

**Garden Court** 

FREE: No pre-registration required

Dates: Wednesdays, June 4, 11, 18, 25

Time: 12 p.m. to 1 p.m. Location: Tour meets in the Conservatory Garden Court

FREE: No pre-registration required



#### **DEMONSTRATION**

### MEET OUR CARNIVOROUS PLANTS

#### **USBG STAFF**

Join USBG staff members as they show off the Garden's amazing carnivorous plants! See the wonderful

diversity of these unique plants while learning how they've adapted to their environments. See sundews snacking or flytraps trapping—anything is possible when you come to meet our carnivorous crew!

Date: Wednesday, June 4 Time: 1 p.m. to 1:30 p.m.

Location: Conservatory Garden Court FREE: No pre-registration required



#### Tour

## THE ART AND HISTORY OF THE USBG

### SUSAN KLUSMAN, USBG VOLUNTEER

Ever wonder why the U.S. Botanic Garden Conservatory is located on its present site? What the architectural style of the building is? How Bartholdi's Fountain became part of the USBG? Where many of the first plants in the Conservatory originated? This walking tour will explore how historical currents, architecture, sculpture, and landscape architecture came together to create this grand building. *Please note:* This tour is held outdoors. We suggest bringing sunscreen, protective clothing and water. The program is canceled if it rains or during times of extreme heat (heat index of 95 degrees or higher/ Code Red weather alert).

Date: Wednesday, June 4 Time: 2 p.m. to 3 p.m.

Location: Tour meets in the front lobby

of the Conservatory

FREE: No pre-registration required

Date: Wednesday, June 18 Time: 2 p.m. to 3 p.m.

Location: Tour meets in the front lobby of the Conservatory

FREE: No pre-registration required



Bartholdi Park fountain at night.

#### **TOUR**

## THE KINGDOM OF RARITIES: NATURE'S BEST KEPT SECRET

### ERIC DINERSTEIN, CONSERVATION SCIENTIST

One of the least known facts in biology, even among some biologists, is that most species on Earth are rare. By this we mean having a narrow range, a limited abundance, or both. But which species have always been rare and why? From jaguars to rainforest plants, from Kirtland's warblers to Andean cock-of-the-rock, why are some species so scarce and others so common?

This tour will explain a basic phenomenon of nature for a lay audience using examples of some of the most spectacular plants and animals on Earth in some of the most exotic locations.

Date: Thursday, June 5 Time: 12 p.m. to 1 p.m.

Location: Tour meets in the Conservatory Garden Court FREE: Pre-registration required: Visit www.usbg.gov

Date: Thursday, June 12 Time: 12 p.m. to 1 p.m.

Location: Tour meets in the Conservatory Garden Court FREE: Pre-registration required: Visit www.usbg.gov



Eric Dinerstein with the rare species Artemisia longifolia.



Eric Dinerstein, middle, with Welwitschia mirabilis.

#### **LECTURE**

## DEEP ROOTED: STORIES OF OLD GARDENERS & LESSONS FOR MODERN GARDENERS

## JENKS FARMER, HORTICULTURIST, GARDEN DESIGNER AND FARMER

Gardening and farming have changed dramatically in the last 50 years. But the more things change, the more we realize that sometimes the old ways were best. Jenks Farmer will tell stories he's collected from old gardeners, recount how their lessons hold up against modern research and show how he uses these lessons in design to build earth-friendly, forward-thinking gardens.

Date: Friday, June 6

Time: 6:30 p.m. to 7:30 p.m. Location: Conservatory Classroom FREE: Pre-registration required:

Visit www.usbg.gov



#### **DEMONSTRATION**

### LEI MAKING FOR KAMEHAMEHA DAY

#### HAWAI'I STATE SOCIETY OF WASHINGTON D.C.

In celebration of Kamehameha Day each June, the local Hawaiian community has prepared leis using many local mid-Atlantic plant materials. The leis are solemnly presented and draped on the statues of Father Damien and Kamehameha in a private ceremony in Statuary Hall of the U.S. Capitol, where following the ceremony visitors to the Capitol can enjoy them. Come learn about Hawaiian traditions and culture. Watch as the Hawaii State Society and other members of the local Hawaiian community make the leis for this year's Kamehameha Day ceremony.

Date: Saturday, June 7
Time: 10 a.m. to 3:30 p.m.
Location: Conservatory Terrace

(Rain Location: Conservatory Garden Court)

FREE: No pre-registration required



#### **LECTURE**

## HAWAII: A BOTANICAL PARADISE IN THE MIDDLE OF THE SEA

## TODD BRETHAUER, USBG SCIENCE EDUCATION VOLUNTEER

In celebration of Kamehameha Day, join Todd Brethauer in an informative lecture on the evolutionary forces that shaped Hawaii's unique native plant communities. Highlights include how the arrival of humans and their animal companions changed the botanical landscape, and how the early Hawaiians

used the plants to meet their food, fiber, shelter, tool, religious and medicinal needs. The lecture highlights the important work of the National Tropical Botanical Garden and the Lyon Arboretum of the University of Hawaii in conserving the islands' unique plant life and ethnobotanical heritage.

Date: Saturday, June 7 Time: 10:30 a.m. to 12 p.m.

**Location: Conservatory Classroom** 





Wilkesia hobdyi

#### **LECTURE**

## A GRAIN OF WISDOM: BOTANY, EVOLUTION AND THE HISTORY OF CEREAL CROPS

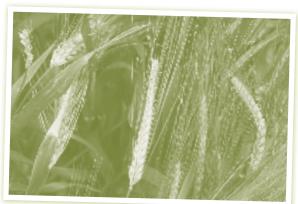
### TODD BRETHAUER, USBG SCIENCE EDUCATION VOLUNTEER

From the earliest days of agriculture, cereal crops have played central roles in civilizations around the world – wheat, rice, barley, rye, oats, corn, sorghum, tef and the millets. As part of the USBG's *Amber Waves of Grain* terrace show, come join Todd Brethauer to learn about the botany, evolution, ecology, physiology and human uses of the grass family. How have human actions changed the plants over thousands of years and what are the challenges facing plant breeders over the next 100 years?

Date: Saturday, June 7 Time: 2 p.m. to 3:30 p.m.

**Location: Conservatory Classroom** 

FREE: Pre-registration required: Visit www.usbg.gov



Hordeum vulgare 'Pearl'



Triticum aestivum 'Consort

**Fodd Brethauer** 

#### WORKSHOP

## CITY FARMING: MANAGING RISKS & INCREASING PROFITS

### ANDY PRESSMAN, SUSTAINABLE AGRICULTURE SPECIALIST, NCAT/ATTRA PROJECT

Interest in local foods is paving the way for opportunities in commercial urban farming. Communities all throughout the country are working with urban growers, municipalities, and new markets to transform city lots into successful market farms. Yet urban farmers face many wellknown risk management challenges that are often barriers to success. This workshop will provide information on urban risk management strategies particular to business and financial planning, market diversification, and intensive crop production techniques as a means of lowering risks and increasing farm revenue. Workshop participants will learn how to overcome barriers that commonly affect urban farmers, including the high cost of land, equipment, and farm infrastructure. The workshop will also focus on





how to overcome barriers that commonly affect urban farmers, including the high cost of land, equipment, and farm infrastructure. The workshop will also focus on intensive production techniques for safely producing high-quality crops on urban soils and establishing a marketing campaign that supports the growing demand for local foods.

Andy Pressman is a Sustainable Agriculture Specialist with the National Center for Appropriate Technology (NCAT) and the ATTRA Project. He has a background in small-scale intensive farming systems and works in the fields of organic crop production, local food systems, and urban farming. Prior to joining NCAT in 2007, Andy worked and managed small diversified farms throughout the Mid-Atlantic and New England. He and his family live in southern New Hampshire where they operate Foggy Hill Farm, a small diversified CSA and

Please note: This workshop will be offered twice. The second workshop is a repeat of the

Date: Sunday, June 8 Time: 2 p.m. to 4 p.m.

first workshop.

family farm.

**Location: Conservatory Classroom** 

FREE: Pre-registration required: Visit www.usbg.gov

Date: Monday, June 9 (repeat of Sunday June, 8)

Time: 6:30 p.m. to 8:30 p.m. Location: Conservatory Classroom

#### **TOUR**

## ARTIST TOUR: BOTANICAL PAINTINGS OF THE MID-ATLANTIC

#### KAREN COLEMAN, ARTIST AND TEACHER

With the evolution of traditional botanical art over the past 4,000 years, contemporary artists continue to build on this tradition to create beautiful works, blending science and art. Join Karen Coleman as she tours the exhibit, talking about what inspires her work and sharing her process from field sketches to the final piece. Karen's hope is that her work will

convey a sense of wonder of the natural world and a desire to

protect what we have left.

Karen is a member of the American Society of Botanical Artists, Botanical Art Society of the National Capital Region, and a Signature Member of the Colored Pencil Society of America. Her works have been shown across the U.S., at the Royal Botanic Gardens in Kew, London, and are in the permanent collection at the Hunt Institute for Botanical Documentation.

Date: Sunday, June 8 Time: 2 p.m. to 3 p.m.

**Location: Conservatory East Gallery** 

FREE: Pre-registration required: Visit www.usbg.gov



#### **LECTURE**

### THE BOTANY AND CHEMISTRY OF BAKING

#### TODD BRETHAUER, USBG SCIENCE EDUCATION VOLUNTEER

Beginning about 30,000 years ago, humans began grinding the starchy parts of the wild plants that they gathered - seeds, rhizomes and tubers. They cooked the preparation. This increased the palatability, the products kept longer and they were more nutritious. Some of those plants were among the first to be domesticated beginning 10,000 years ago in

the Middle East, Europe, Asia, Africa and the Americas. Barley, wheat, rye, oats, rice, sorghum, cassava and maize were cultivated in their native areas and then spread around the world. The baked goods produced from the flours and meals made from these crops became mainstays of diets. Come spend an hour and learn about the botany, chemistry and history of baking; how the demands of baking changed the crops and how the crops and baking shaped civilizations.

Date: Tuesday, June 10 Time: 12 p.m. to 1 p.m.

**Location: Conservatory Classroom** 

FREE: Pre-registration required: Visit www.usbg.gov



Triticum durum var Branco

Todd Brethauer

#### **LECTURE & TASTING**

# LONGING FOR LONGANS AND LOQUATS: AN ADVENTURE WITH TROPICAL FRUITS

### KYLE WALLICK, USBG BOTANIST

Join Kyle Wallick for this exploration of the botany of tropical fruit. Taste and experience some of the more unusual fruits of the world and discover if you are brave enough to sample the Durian!

Date: Thursday, June 12 Time: 12 p.m. to 1 p.m.

Location: Conservatory Classroom

FREE: Pre-registration required: Visit www.usbg.gov



### **CONCERT SERIES**

## THE SOUNDS OF SUMMER

### BRUCE SWAIM QUARTET, JAZZ MUSICIANS

Evenings in the National Garden are a delight. Come experience the wonder of the USBG's outdoor garden while listening to the sounds of the Bruce Swaim Quartet. *Please note:* Concert is held outdoors. No chairs will be provided. The indoor gardens and related facilities will not be available for use. We suggest bringing chairs/blankets for sitting, sunscreen, protective clothing and water. The concert will be canceled if it rains.



#### **LECTURE**

### **OUR PRIZED NATIVE AZALEAS**

STEVEN KRISTOPH, NURSERY OWNER, ADJUNCT INSTRUCTOR DEPARTMENT OF LANDSCAPE ARCHITECTURE, RUTGERS UNIVERSITY, NEW BRUNSWICK, NJ

Are your favorite colors bright red, orange or yellow? Or do you prefer soft pastel pink or maybe pure white? Does the sweet smell of honeysuckle appeal to you? And fall foliage...do like that? If these ornamental features are what you are seeking for your garden, consider our prized native azaleas. There are 17 species native to the US, all but two are found east of the Mississippi. Let Steven Kristoph teach you about these wonderful garden plants, their culture, care and how to place them in the landscape.



Date: Friday, June 13 Time: 12 p.m. to 1 p.m.

Location: Conservatory Classroom FREE: Pre-registration required

#### **FESTIVAL**

## **CELEBRATE Amber Waves of Grain!**

#### USBG STAFF AND VOLUNTEERS

Join the U.S. Botanic Garden in celebrating Amber Waves of Grain and the wonderful world of wheat! Highlighting our annual terrace show, this year's festival will feature wheat-related activities for all ages. Explore grains with Chef Tania Mercer, learn which types of wheat are best for making different types of dough, discover how wheat is used in everyday products like shampoo and concrete, and much, much more. Not to be missed, this year's festival will cause you to think about wheat in a whole new way!

Date: Saturday, June 14 Time: 10 a.m. to 2 p.m.

Location: Conservatory Terrace (Rain Location: Garden Court) FREE: No pre-registration required



#### **LECTURE**

#### **BOTANY AND CHEMISTRY OF BREWING**

#### TODD BRETHAUER, USBG SCIENCE VOLUNTEER

About 8,000 years ago, humans began consuming the product of the action of naturally occurring yeasts on watery solutions of the starches of the grains that they grew. The art of brewing developed across multiple cultures around the world. By the time of Ancient Egypt, baking and brewing were closely linked professions. Archeologists find evidence of the

brewing profession at many locations

in the form of vats for the preparation and cups and other equipment for the consumption of the brew. Ancient accountants kept records of the production, quality, transport and sale. Come spend an hour and learn about the botanical inputs and the chemical transformations that occur as grain is brewed into ale and beer.

Date: Tuesday, June 17 Time: 12 p.m. to 1 p.m.

Location: Conservatory Classroom FREE: Pre-registration required:

Visit www.usbg.gov



Humulus lupulus

#### **Tour**

## MID-DAY TOUR IN THE GARDEN OF GOOD AND EVIL: MEDICINAL AND POISON PLANTS AT THE USBG

#### BETH BURROUS, BIOCHEMIST AND USBG VOLUNTEER

Many important medicines are derived from plants, but too much of a good thing can be dangerous. During a walking tour of the Conservatory and National Garden, Beth Burrous will feature poisonous and medicinal plants growing at the USBG. She will talk about famous, interesting and sometimes fatal cases of poisoning by plants. You will also see

and learn about plants used to make life-saving medicines. *Please note:* Parts of this tour may be held outdoors. We suggest bringing sunscreen, protective clothing and water.

Date: Tuesday, June 17 Time: 1 p.m. to 2 p.m. Location: Tour meets in the Conservatory Garden Court FREE: No pre-registration required



#### **TOUR**

## **Amber Waves of Grain: AN OVERVIEW**

#### DR. ARI NOVY, USBG DEPUTY EXECUTIVE DIRECTOR

Join Dr. Ari Novy for a tour through the wonderful world of wheat. Learn about how humans have utilized this crop through the ages and how one man saved a billion from starvation in the 20<sup>th</sup> century with this simple grain. *Please note:* This tour is held outdoors. We suggest bringing sunscreen, protective clothing and water. The tour is canceled if it rains or during times of extreme heat (heat index of 95 degrees or higher/Code Red weather alert).



Date: Thursday, June 19 Time: 10:30 a.m. to 11:30 a.m.

Location: Tour meets on the Terrace in front of the Conservatory

FREE: Pre-registration required: Visit www.usbg.gov

#### **COOKING DEMONSTRATION**

### SUMMER SALADS

Adrienne Cook, Gardening and Cooking Writer and Danielle Cook, MS, Nutritionist and Cooking Instructor

What's better in the summer than a bright, flavor-packed salad for dinner? Join the Cook Sisters as they showcase new ideas for salads and new ways of thinking about what a summer salad is or should be. *Please note:* This program will be offered at 12 p.m. and repeated at 12:45 p.m. on each day.

Date: Thursday, June 19 Time: 12 p.m. to 1:30 p.m.

Location: Conservatory Garden Court FREE: No pre-registration required

Date: Wednesday, June 25 Time: 12 p.m. to 1:30 p.m.

Location: Conservatory Garden Court FREE: No pre-registration required



#### **SPECIAL EVENT**

### **POLLINATOR PARTY!**

# JIM WILLMOTT, USBG PLANT HEALTH CARE SPECIALIST AND DR. ARI NOVY, USBG DEPUTY EXECUTIVE DIRECTOR

Does your garden flutter? Is it a-buzz with flighty friends? Whether you are invested in insect garden visitors or just want to learn more, come celebrate pollinators at the USBG during this special event. Join Jim Willmott and Dr. Ari Novy as they share the wonders of what butterflies, bumblebees and honeybees bring the environment, and then help them release select butterflies into our Butterfly Garden! Please note: This program will be offered twice, at 10:30 a.m. and 12 p.m. It is held outdoors. We suggest bringing sunscreen, protective clothing and water. The program is canceled if it rains or during times of extreme heat (heat index of 95 degrees or higher/Code Red weather alert).

Date: Friday, June 20

Time: 10:30 a.m. to 11 a.m. and

12 p.m. to 12:30 p.m.

Location: National Garden Butterfly Garden

FREE: No pre-registration required



#### **LECTURE**

## WHAT SCIENCE SAYS ABOUT GMO FOODS

#### BETH BURROUS, BIOCHEMIST AND USBG VOLUNTEER

GMO plants frequently make headlines. Some foods are labeled "no GMOs" or "non-GMO." In this class, Beth will explain the science behind the headlines and food labels. She will present both sides of the issues surrounding this controversial subject, including food safety, environmental impact and government regulation.

Date: Friday, June 20 Time: 12 p.m. to 1 p.m.

Location: Conservatory Classroom FREE: Pre-registration required

#### **CONCERT SERIES**

### THE SOUNDS OF SUMMER

### BUMPER JACKSONS, STREET JAZZ/FOLK MUSICIANS

Evenings in the National Garden are a delight. Come experience the wonder of the USBG's outdoor garden while listening to the sounds of the Bumper Jacksons. *Please note:* Concert is held outdoors. No chairs will be provided. The indoor gardens and related facilities will not be available for use. We suggest bringing chairs/blankets for sitting, sunscreen, protective clothing and water. The concert will be canceled if it rains.

Date: Thursday, June 26 Time: 5 p.m. to 7 p.m.

Location: National Garden Lawn Terrace FREE: No pre-registration required

#### **TOUR**

### CURATOR'S "CURA-TOUR" OF THE NATIONAL GARDEN

### BILL McLaughlin, USBG CURATOR

Take a tour of the National Garden highlighting its design concepts and environmentally friendly, forward thinking approach to gardening. Come learn of the DC area's Atlantic

Fall Line flora, in a garden that celebrates beauty, American style! *Please note:* This tour is held outdoors. Registration will be limited to 15 participants. We suggest bringing sunscreen, protective clothing and water. The tour is canceled if it rains or during times of extreme heat (heat index of 95 degrees or higher/Code Red weather alert).



Date: Friday, June 27

Time: 10:15 a.m. to 11:15 a.m.

Location: National Garden (Tour will meet by the

entrance to the National Garden from the Conservatory Terrace)

#### TOUR

## **CURATOR'S "PERIM-A-TOUR" OF THE NATIONAL GARDEN**

#### BILL McLaughlin, USBG CURATOR

The perimeter of the National Garden offers a unique twist on the concept of native plant gardening. Eschewing the regional definition of "native," the garden features plants from throughout North America, showing the beauty and diversity of our continent's flora. Join Bill

McLaughlin for the first time offering of this tour. *Please note:* This tour is held outdoors. Registration will be limited to 15 participants. We suggest bringing sunscreen, protective clothing and water. The tour is canceled if it rains or during times of extreme heat (heat index of 95 degrees or higher/Code Red weather alert).

Date: Friday, June 27 Time: 12:30 p.m. to 1:30 p.m. Location: National Garden

(Tour will meet by the entrance to the National Garden from the Conservatory Terrace)

FREE: Pre-registration required: Visit www.usbg.gov



#### **SPECIAL EVENT**

## Songs and Dances of the Pua (Flowers) of Hawai'i

#### HAWAI'I STATE SOCIETY OF WASHINGTON D.C. 'UKULELE HUI

Join the Hawai'i State Society of Washington D.C. 'Ukulele Hui as they depict in song and dance the beautiful flowers of Hawai'i, such as the yellow ginger, pikake, hibiscus, carnation, green rose, lehua, gardenia, bird-of-paradise, and more. Celebrate the pua, or flower, which serves as a metaphor for a child or



someone very cherished. Learn how leis, made up of these special flowers, are presented to people for occasions involving love, friendship, joy, congratulations and best wishes.

Date: Saturday, June 28

Time: 11:00 a.m.

Location: National Garden Amphitheater (Rain Location: Conservatory Garden Court)

FREE: No pre-registration required

#### Tour

#### **LUNCHTIME TOUR OF THE CONSERVATORY**

#### **USBG VOLUNTEERS**

What do manila folders, Chanel No. 5, vanilla and fossil fuels have in common? They all come from plants on permanent display in the USBG Conservatory. Take a tour with a knowledgeable guide who will connect the exotic plant world to everyday life. You might see bananas, cacao and coffee ripening on the tree or learn about the next big breakthrough in medicinal plant research.

Dates: Mondays, July 7, 14, 21, 28

Time: 12 p.m. to 1 p.m.

Location: Tour meets in the Conservatory Garden Court

FREE: No pre-registration required

Dates: Wednesdays, July 2, 9, 16, 23, 30

Time: 12 p.m. to 1 p.m.

Location: Tour meets in the Conservatory Garden Court

FREE: No pre-registration required

#### **DEMONSTRATION**

## MEET OUR CARNIVOROUS PLANTS

#### **USBG STAFF**

Join USBG staff members as they show off the Garden's amazing carnivorous plants! See the wonderful diversity of these unique plants while learning how they've adapted to their environments. See sundews snacking or flytraps trapping—anything is possible when you come to meet our carnivorous crew!

Date: Wednesday, July 2 Time: 1 p.m. to 1:30 p.m.

Location: Conservatory Garden Court FREE: No pre-registration required





#### **TOUR**

## **Amber Waves of Grain: AN OVERVIEW**

#### DR. ARI NOVY, USBG DEPUTY EXECUTIVE DIRECTOR

Join Dr. Ari Novy for a tour through the wonderful world of wheat. Learn about how humans have utilized this crop through the ages and how one man saved a billion from starvation in the 20<sup>th</sup> century with this simple grain. *Please note:* This tour is held outdoors. We suggest bringing sunscreen, protective clothing and water. The tour is canceled if it rains or during times of extreme heat (heat index of 95 degrees or higher/Code Red weather alert).



Date: Thursday, July 10 Time: 10:30 a.m. to 11:30 a.m.

Location: Tour meets on the Terrace in front of the Conservatory

FREE: Pre-registration required: Visit www.usbg.gov

#### **DEMONSTRATION**

## CREATING BEAUTIFUL CONTAINERS

MARGARET ATWELL, USBG ROSE AND BUTTERFLY GARDENER AND BETH AHERN, USBG GARDENER

You don't need a lot of room to grow plants! Try growing your favorite flowers, herbs or vegetables in containers. Spend an hour with Beth and Margaret as they demonstrate the proper techniques for planting and maintaining containers at home.

Date: Thursday, July 10 Time: 1 p.m. to 2 p.m.

**Location: Conservatory West Gallery** 



#### **CONCERT SERIES**

### THE SOUNDS OF SUMMER

#### RUTHIE AND THE WRANGLERS, CLASSIC COUNTRY/WESTERN MUSICIANS

Evenings in the National Garden are a delight. Come experience the wonder of the USBG's outdoor garden while listening to the sounds of Ruthie and the Wranglers. *Please note:* Concert is held outdoors. No chairs will be provided. The indoor gardens and related facilities will not be available for use. We suggest bringing chairs/blankets for sitting, sunscreen, protective clothing and water. The concert will be canceled if it rains.

Date: Thursday, July 10 Time: 5 p.m. to 7 p.m.

Location: National Garden Lawn Terrace FREE: No pre-registration required

#### YOUTH WORKSHOP

## FUN WITH FLOWERS AND PHOTOGRAPHY

KEVIN BLACKBURN, MFA, PHOTOGRAPHER, EDUCATOR, OWNER OF KEVIN BLACKBURN PHOTOGRAPHY

Come explore the wonders of photographing flowers while learning the basics of photography. Over the course of 3 hours, students between the ages of 10 and 13 will learn how to use photography skills in nature as an artistic



tool, sharing the joy of nature through the lens of a camera. *Please note:* This workshop is designed for students aged 10 to 13. It will be offered twice; the second workshop is a repeat of the first. Each workshop will only be open to 10 participants. Adults should be on-site for the duration of the workshop. No materials are necessary. Each participant will be given (to use then return) their own camera with instruction on basic use, followed by a demonstration of the basic composition of the camera itself. Each participant will produce a print to take with them at the conclusion of the workshop, in addition to taking home a thumb drive that contains additional photos taken during the course.

Date: Saturday, July 12 Time: 10 a.m. to 1 p.m.

**Location: Conservatory Classroom** 

FREE: Pre-registration required: Visit www.usbg.gov

Date: Saturday, July 12 Time: 2 p.m. to 5 p.m.

Location: Conservatory Classroom

#### **ART WORKSHOP**

## **DRAWING THE TROPICS**

#### CAROL BEACH, ARTIST

Spend a week in the tropics! Inspired by the United States Botanic Garden's permanent collection, this art workshop will concentrate on a variety of tropical plants that can be found throughout the world. Palms, hibiscus and pineapples are some of the many beautiful specimens that provide inspiration for this course. Working with watercolor and colored pencil techniques, students will have the opportunity to illustrate tropical plants from both the planted gardens of the Conservatory and specimens provided from the collection at the Production Facility. During the last two sessions the instructor will guide students in matting and framing their artwork. A



Osa pulchra

select number of student artwork will then be hung in the Classroom gallery of the USBG for the remainder of the summer and into the fall. Students who wish to be considered for the exhibition must register for the class for credit through the Corcoran College of Art and Design (http://ce.corcoran.edu/course/BG1600). Those who are not interested in the exhibition, but would still enjoy the course, are encouraged to sign up through the USBG. *Please note:* A materials list can be found with the online listing. Please bring a lunch.

Dates: Monday, July 14 through Friday, July 18

Time: 9 a.m. to 3:30 p.m.

**Location: Conservatory Classroom** 

Friends: \$325 Non-members: \$375

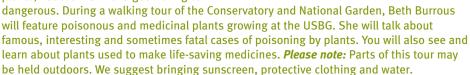
Pre-registration required: Visit www.usbg.gov

#### TOUR

# MID-DAY TOUR IN THE GARDEN OF GOOD AND EVIL: MEDICINAL AND POISON PLANTS AT THE USBG

## BETH BURROUS, BIOCHEMIST AND USBG VOLUNTEER

Many important medicines are derived from plants, but too much of a good thing can be



Date: Tuesday, July 15 Time: 12 p.m. to 1 p.m.

Location: Tour meets in the Conservatory Garden Court

FREE: No pre-registration required



#### **COOKING DEMONSTRATION**

### **TOTALLY TOMATOES**

### Adrienne Cook, Gardening and Cooking Writer and Danielle Cook, MS, Nutritionist and Cooking Instructor

Tomatoes are the jewels of the summer garden. Whether you prefer modern hybrids or old-timey heirlooms, whether you're eyeing yellow, orange, striped, green, pink or brown tomatoes, it's impossible to get too much of this delicious, vitamin-packed fruit of the vine. Come listen to the Cook Sisters and learn new ways to enjoy a summer favorite. *Please note:* This program will be offered at 12 p.m. and repeated at 12:45 p.m. on each day.

Date: Thursday, July 17 Time: 12 p.m. to 1:30 p.m.

Location: Conservatory Garden Court FREE: No pre-registration required

Date: Friday, July 25 Time: 12 p.m. to 1:30 p.m.

Location: Conservatory Garden Court FREE: No pre-registration required



## THE BOTANY AND CHEMISTRY OF BAKING

## TODD BRETHAUER, USBG SCIENCE EDUCATION VOLUNTEER

Beginning about 30,000 years ago, humans began grinding the starchy parts of the wild plants that they gathered -



Triticum durum var Branco

seeds, rhizomes and tubers. They cooked the preparation. This increased the palatability, the products kept longer and they were more nutritious. Some of those plants were among the first to be domesticated beginning 10,000 years ago in the Middle East, Europe, Asia, Africa and the Americas. Barley, wheat, rye, oats, rice, sorghum, cassava and maize were cultivated in their native areas and then spread around the world. The baked goods produced from the flours and meals made from these crops became mainstays of diets. Come spend an hour and learn about the botany, chemistry and history of baking; how the demands of baking changed the crops and how the crops and baking shaped civilizations.

Date: Saturday, July 19
Time: 10:30 a.m. to 12 p.m.
Location: Conservatory Classroom

#### **LECTURE**

## A GRAIN OF WISDOM: BOTANY, EVOLUTION AND THE HISTORY OF CEREAL CROPS

### TODD BRETHAUER, USBG SCIENCE EDUCATION VOLUNTEER

From the earliest days of agriculture, cereal crops have played central roles in civilizations around the world – wheat, rice, barley, rye, oats, corn, sorghum, tef and the millets. As part of the USBG's *Amber Waves of Grain* 

terrace show, come join Todd Brethauer to learn about the botany, evolution, ecology, physiology and human uses of the grass family. How have human actions changed the plants over thousands of years and what are the challenges facing plant breeders over the next 100 years?

Date: Tuesday, July 22 Time: 12 p.m. to 1 p.m.

Location: Conservatory Classroom FREE: Pre-registration required:

Visit www.usbg.gov



Hordeum vulgare 'Pearl'



Triticum aestivum 'Consort'

#### **CONCERT SERIES**

#### THE SOUNDS OF SUMMER

#### MOONSHINE SOCIETY, BLUES MUSICIANS

Evenings in the National Garden are a delight. Come experience the wonder of the USBG's outdoor garden while listening to the sounds of the Moonshine Society. *Please note:* Concert is held outdoors. No chairs will be provided. The indoor gardens and related facilities will not be available for use. We suggest bringing chairs/blankets for sitting, sunscreen, protective clothing and water. The concert will be canceled if it rains.

Date: Thursday, July 24
Time: 5 p.m. to 7 p.m.
Location: National Garden Lawn Terrace
FREE: No pre-registration required

#### WORKSHOP

## UNDERSTANDING AND MANAGING URBAN SOILS FOR HEALTHY FOOD PRODUCTION



## CHRIS LENT, AGRICULTURE SPECIALIST, NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY

Urban soils are exposed to conditions that can affect the ability of the soil to grow healthy plants. Dense populations, building materials, and water runoff can all have an impact on the quality and condition of the soils in urban areas. As interest grows in providing more fresh food to urban populations by growing food where the people live, it becomes important for producers to understand soil quality and how it relates to food quality. When urban growers understand the issues surrounding the quality of their soils it can help them support healthy soil practices and opens up

possibilities for utilizing urban land for growing healthy food.

This workshop will first focus on urban soils by identifying both problems and opportunities of managing soils in an urban context. Specific types of possible urban soil contamination will be discussed along with soil sampling and testing options. Common contaminants and their sources will be uncovered, and we'll discuss practical strategies for how to remediate soils when contaminants are found. Secondly, we'll discuss how to support healthy



soil practices in urban production systems, and how good soil management practices affect the soil ecosystem, nutrient availability, and plant health. *Please note:* This workshop will be offered twice. The second workshop is a repeat of the first workshop.

Chris Lent is an Agriculture Specialist with the National Center for Appropriate Technology (NCAT). After graduating with a BS in Business, Chris started and operated Lent's Organics, a certified organic vegetable and livestock operation in Pennsylvania. He marketed his produce through a CSA, at farmers markets, and to restaurants, and used compost and cover crops to support soil fertility for his intensively planted crops. Prior to working at NCAT, Chris designed and installed solar livestock watering systems, solar PV systems and solar thermal hot water systems.

Date: Saturday, July 26

Time: 10:30 a.m. to 12:30 p.m. Location: Conservatory Classroom

FREE: Pre-registration required: Visit www.usbg.gov

Date: Sunday, July 27 Time: 2 p.m. to 4 p.m.

**Location: Conservatory Classroom** 

#### **LECTURE**

## BOTANY AND CHEMISTRY OF BREWING

## TODD BRETHAUER, USBG SCIENCE VOLUNTEER

About 8,000 years ago, humans began consuming the product of the action of naturally occurring yeasts on watery solutions of the starches of the grains that they grew. The art of brewing developed across multiple cultures around the world. By the time of Ancient Egypt, baking and brewing were closely linked



Humulus lupulus

professions. Archeologists find evidence of the brewing profession at many locations in the form of vats for the preparation and cups and other equipment for the consumption of the brew. Ancient accountants kept records of the production, quality, transport and sale. Come spend an hour and learn about the botanical inputs and the chemical transformations that occur as grain is brewed into ale and beer.

Date: Tuesday, July 29 Time: 12 p.m. to 1 p.m.

Location: Conservatory Classroom

FREE: Pre-registration required: Visit www.usbg.gov

#### WORKSHOP

### **PICKLES TWO WAYS**

## MARISA McClellan, Author, Food in Jars

Learn the basics of pickling with cookbook author and Food in Jars blogger Marisa McClellan. She'll walk you through the steps of making both quick and preserved pickles and will show you the basics of boiling water bath pickles. All students will go home with the recipes and canning details, as well as the two jars of pickles they made in class that day. *Please note:* Registration will be limited to 20 participants.

Date: Saturday, August 2 Time: 10 a.m. to 12 p.m.

Location: Conservatory Classroom FREE: Pre-registration required:

Visit www.usbg.gov



#### WORKSHOP

## AN INTRODUCTION TO CANNING TOMATOES

### MARISA McClellan, Author, Food in Jars

Learn the basics of tomato preservation and boiling water bath canning with cookbook author and Food in Jars blogger Marisa McClellan. She'll walk you through the steps of prepping and preserving whole peeled tomatoes. All students will go home with the recipe and canning details, as well as a jar of the tomatoes made in class that day. *Please note:* Registration will be

limited to 20 participants.

Date: Saturday, August 2 Time: 1 p.m. to 3 p.m.

**Location: Conservatory Classroom** 

FREE: Pre-registration required: Visit www.usbg.gov



#### **Tour**

## **LUNCHTIME TOUR OF THE CONSERVATORY**

#### **USBG VOLUNTEERS**

What do manila folders, Chanel No. 5, vanilla and fossil fuels have in common? They all come from plants on permanent display in the USBG Conservatory. Take a tour with a knowledgeable guide who will connect the exotic plant world to everyday life. You might see bananas, cacao and coffee ripening on the tree or learn about the next big breakthrough in medicinal plant research.

Dates: Mondays, August 4, 11, 18, 25

Time: 12 p.m. to 1 p.m.

Location: Tour meets in the Conservatory

**Garden Court** 

FREE: No pre-registration required

Dates: Wednesdays, August 6, 13, 20, 27

Time: 12 p.m. to 1 p.m.

Location: Tour meets in the Conservatory Garden Court

FREE: No pre-registration required



#### DEMONSTRATION

### MEET OUR CARNIVOROUS PLANTS

#### **USBG STAFF**

Join USBG staff members as they show off the Garden's amazing carnivorous plants! See the wonderful

diversity of these unique plants while learning how they've adapted to their environments. See sundews snacking or flytraps trapping—anything is possible when you come to meet our carnivorous crew!

Date: Wednesday, August 6 Time: 1 p.m. to 1:30 p.m.

Location: Conservatory Garden Court FREE: No pre-registration required



#### **LECTURE**

# A GRAIN OF WISDOM: BOTANY, EVOLUTION AND THE HISTORY OF CEREAL CROPS

## TODD BRETHAUER, USBG SCIENCE EDUCATION VOLUNTEER

From the earliest days of agriculture, cereal crops have played central roles in civilizations around the world – wheat, rice, barley, rye, oats, corn, sorghum,

tef and the millets. As part of the USBG's Amber Waves of Grain terrace show, come join Todd Brethauer to learn about the botany, evolution, ecology, physiology and human uses of the grass family. How have human actions changed the plants over thousands of years and what are the challenges facing plant breeders over the next 100 years?

Date: Thursday, August 7 Time: 12 p.m. to 1 p.m.

Location: Conservatory Classroom



Triticum aestivum 'Consort'

#### **CONCERT SERIES**

## THE SOUNDS OF SUMMER

### JUSTIN TRAWICK AND THE COMMON GOOD, AMERICANA/BLUEGRASS/FOLK MUSICIANS

Evenings in the National Garden are a delight. Come experience the wonder of the USBG's outdoor garden while listening to the sounds of Justin Trawick and The Common Good. *Please note:* Concert is held outdoors. No chairs will be provided. The indoor gardens and related facilities will not be available for use. We suggest bringing chairs/blankets for sitting, sunscreen, protective clothing and water. The concert will be canceled if it rains.

Date: Thursday, August 7 Time: 5 p.m. to 7 p.m.

Location: National Garden Lawn Terrace FREE: No pre-registration required

#### WORKSHOP

### FRUITS AND BERRIES FROM CITY LOTS



GUY AMES, HORTICULTURE SPECIALIST WITH ATTRA, THE NATIONAL SUSTAINABLE AGRICULTURE INFORMATION SERVICE MANAGED BY THE NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY Urban fruit and berry production is adding new flavors to urban farming. Old and new

varieties are finding their ways to the front lawn, offering consumers with a truly-ripe, locally-grown fruit as well as providing food for pollinators. However, new risks and challenges are also finding their way to the urban orchard that requires a skill set different from the traditional methods of fruit growing. Long-time fruit grower Guy K. Ames will discuss the many challenges and opportunities of commercial urban fruit production. Some topics Ames will discuss include land ownership vs. leasing vs. renting; dwarf fruit trees; working with buildings, shade and other urban features; pest management in high population density areas; the species and cultivars amenable to urban agriculture; high tunnels and other modifications; and how community orchards can help commercial urban fruit growers. Ames will also focus on marketing and how urban fruit growers can achieve a premium price especially when facing high cosmetic standards.

Guy K. Ames is a Horticulture Specialist with ATTRA, the National Sustainable Agriculture Information Service managed by the National Center for Appropriate Technology (NCAT). Guy K. Ames received a Master's of Science degree in horticulture (fruit crops and pest control in fruit crops) from University of Arkansas, Fayetteville. He has operated Ames Orchard & Nursery, producing both fruit and fruit plants for the past 24 years. He is the author, most recently, of the ATTRA publication titled Community Orchards.

Date: Saturday, August 9 Time: 10:30 a.m. to 12:30 p.m. Location: Conservatory Classroom

FREE: Pre-registration required: Visit www.usbg.gov

Date: Sunday, August 10 Time: 2 p.m. to 4 p.m.

**Location: Conservatory Classroom** 



#### **LECTURE**

## THE BOTANY AND CHEMISTRY OF BAKING

## TODD BRETHAUER, USBG SCIENCE EDUCATION VOLUNTEER

Beginning about 30,000 years ago, humans began grinding the starchy parts of the wild plants that they gathered - seeds, rhizomes and tubers. They cooked the preparation. This increased the palatability, the products kept longer and they were more nutritious. Some of those plants were among the first to be domesticated beginning 10,000 years



Triticum durum var Branco

ago in the Middle East, Europe, Asia, Africa and the Americas. Barley, wheat, rye, oats, rice, sorghum, cassava and maize were cultivated in their native areas and then spread around the world. The baked goods produced from the flours and meals made from these crops became mainstays of diets. Come spend an hour and learn about the botany, chemistry and history of baking; how the demands of baking changed the crops and how the crops and baking shaped civilizations.

Date: Thursday, August 14 Time: 12 p.m. to 1 p.m.

**Location: Conservatory Classroom** 

FREE: Pre-registration required: Visit www.usbg.gov

#### **COOKING DEMONSTRATION**

## **CRAZY ABOUT CORN**

# ADRIENNE COOK, GARDENING AND COOKING WRITER AND DANIELLE COOK, MS, NUTRITIONIST AND COOKING INSTRUCTOR

Fantastic new varieties of corn just keep appearing at farm stands, backyard gardens and supermarkets. Join the Cook Sisters to discover a variety of ways to use this sweet summer delicacy. *Please note:* This program will be offered at 12 p.m. and repeated at 12:45 p.m. on each day.

Date: Friday, August 15 Time: 12 p.m. to 1:30 p.m.

Location: Conservatory Garden Court FREE: No pre-registration required



### YOUTH WORKSHOP

### THE SCIENCE OF CHOCOLATE CHIP COOKIES

### LEE COYKENDALL, USBG CHILDREN'S EDUCATION SPECIALIST

We all love chocolate chip cookies, but have you ever wondered the science behind the ingredients? Come learn about from where and how

these wonderful ingredients turn into such delicious offerings. Participants will leave with goodie bags! *Please note:* This workshop is intended for students ages 7 to 14. Accompanying adults should be on-site for the duration of the workshop. Registration will be limited to 20 students.

Date: Saturday, August 16 Time: 10:30 a.m. to 12 p.m. Location: Conservatory Classroom FREE: Pre-registration required:

Visit www.usbg.gov

Date: Saturday, August 16 Time: 2 p.m. to 3:30 p.m.

**Location: Conservatory Classroom** 

FREE: Pre-registration required: Visit www.usbg.gov



### **Tour**

### **Amber Waves of Grain: AN OVERVIEW**

### DR. ARI NOVY, USBG DEPUTY EXECUTIVE DIRECTOR

Join Dr. Ari Novy for a tour through the wonderful world of wheat. Learn about how humans have utilized this crop through the ages and how one man saved a billion from starvation in the 20<sup>th</sup> century with this simple grain. *Please note:* This tour is held outdoors. We suggest bringing sunscreen, protective clothing and water. The tour is canceled if it rains or during times of extreme heat (heat index of 95 degrees or higher/Code Red weather alert).

Date: Thursday, August 21 Time: 10:30 a.m. to 11:30 a.m.

Location: Tour meets on the Terrace in front of the Conservatory



### **CONCERT SERIES**

### THE SOUNDS OF SUMMER

### THE MORRISON BROTHERS, MODERN COUNTRY/ROCK MUSICIANS

Evenings in the National Garden are a delight. Come experience the wonder of the USBG's outdoor garden while listening to the sounds of The Morrison Brothers. *Please note:* Concert is held outdoors. No chairs will be provided. The indoor gardens and related facilities will not be available for use. We suggest bringing chairs/blankets for sitting, sunscreen, protective clothing and water. The concert will be canceled if it rains.

Date: Thursday, August 21 Time: 5 p.m. to 7 p.m.

Location: National Garden Lawn Terrace FREE: No pre-registration required

### **COOKING DEMONSTRATION**

### POPPING PEPPERS

Adrienne Cook, Gardening and Cooking Writer and Danielle Cook, MS, Nutritionist and Cooking Instructor

A rainbow of peppers can be found in supermarkets and farmers markets. Join the Cook Sisters to learn how to take advantage of this bounty in fun new ways, making the most of fresh sweet bells and their hotter cousins. *Please note:* This program will be offered at 12 p.m. and repeated at 12:45 p.m. on each day.

Date: Friday, August 22 Time: 12 p.m. to 1:30 p.m.

Location: Conservatory Garden Court FREE: No pre-registration required





### **LECTURE**

### **BOTANY AND CHEMISTRY OF BREWING**

### TODD BRETHAUER, USBG SCIENCE VOLUNTEER

About 8,000 years ago, humans began consuming the product of the action of naturally occurring yeasts on watery solutions of the starches of the grains that they grew. The art of brewing developed across multiple cultures around the world. By the time of Ancient Egypt, baking and brewing were closely linked professions. Archeologists find evidence of the brewing profession at many locations in the form of vats for the preparation and cups and other equipment for the consumption of the brew. Ancient accountants kept records of the production, quality, transport and sale. Come spend an hour and learn about the botanical inputs and the chemical transformations that occur as grain is brewed into ale and beer.

Date: Saturday, August 23 Time: 10:30 a.m. to 12 p.m.

**Location: Conservatory Classroom** 



Humulus lupulus

# Upcoming Events in Early September

Mark your calendars for these programs in Early September!

### CHILDREN'S PROGRAM

### SEEDLINGS

## LEE COYKENDALL, USBG CHILDREN'S EDUCATION SPECIALIST

Come learn just how amazing plants really are during our Seedlings class (ages 6–10). Each week will be a mix of hands-on investigations, planting projects and science-based activities. *Please note:* Students must be at least 6 years of age and accompanied by an adult.

Dates: Tuesdays, September 2, 9, 16, 23

Time: 10:30 a.m. to 12 p.m.

Location: Conservatory Classroom FREE: Pre-registration required:

Visit www.usbg.gov\*

\*Please note: Registration opens on Wednesday, August 6 at 10 a.m.



### **ART WORKSHOP**

### **BOTANY FOR ILLUSTRATORS**

### KYLE WALLICK, USBG BOTANIST

Drawing plants with scientific accuracy requires an understanding of basic botany. Using a hands-on approach with the living plant collection at the U.S. Botanic Garden, students will learn plant morphology and taxonomy by examining and drawing the variety of plant forms, structures and functions found in the natural world. Major plant groups and algae will be covered. *Please note:* A materials list can be found with the online listing.

Dates: Tuesdays, September 2, 9, 16, 23, 30, October 7, 14, 21, 28 and Saturday, October 4 Times: 6 p.m. to 8:30 p.m. on Tuesdays and

9 a.m. to 4:30 p.m. on Saturday Location: Conservatory Classroom

Friends: \$325 Non-Members: \$375



### CHILDREN'S PROGRAM

### **SPROUTS**

### LEE COYKENDALL, USBG CHILDREN'S EDUCATION SPECIALIST

Bring your preschooler (ages 3–5) to the U.S. Botanic Garden for plant-related fun. Each Wednesday session will have varied activities that may include a story, art activity or walk in the garden. *Please note:* Children must be accompanied by an adult. Participating children must be at least 3 years of age.

Dates: Wednesdays, September 3, 10, 17, 24

Time: 10:30 a.m. to 11:30 a.m. Location: Conservatory Classroom FREE: Pre-registration required:

Visit www.usbg.gov\*
\*Please note: Registration opens on

Wednesday, August 6 at 10 a.m.



### **LECTURE**

# RUST NEVER SLEEPS: A GLOBAL APPROACH TO FIGHTING DEADLY DISEASES OF WHEAT

RONNIE COFFMAN, INTERNATIONAL
PROFESSOR OF PLANT BREEDING
& GENETICS, DIRECTOR OF
INTERNATIONAL PROGRAMS, COLLEGE
OF AGRICULTURE & LIFE SCIENCES,
CORNELL UNIVERSITY AND WINNER OF
THE 2013 WORLD AGRICULTURE PRIZE

Stem rust has plagued wheat farmers for millennia, but new superstrains



coming out of East Africa have the potential to overcome 80% of the world's wheat crop. Dr. Ronnie Coffman, the director of the Durable Rust Resistance in Wheat Project, will outline the challenges faced by this international consortium of scientists and some of the successes in securing the world's wheat crop, especially among smallholder farmers in Asia and Africa.

Date: Thursday, September 4 Time: 6:30 p.m. to 8 p.m.

Location: Conservatory Classroom

### **LECTURE**

### THE FASCINATING WORLD OF CARNIVOROUS PLANTS

### TODD BRETHAUER, USBG SCIENCE EDUCATION VOLUNTEER

Few plants fascinate young and old alike more than carnivorous plants. The adaptation and ability of these 700+ plant species allows them to capture and digest insects and other small animals, which enables them to grow in nutrient poor soils. Learn about the evolution, history, ecology and physiology of the carnivorous plants of the world and how modern science is being applied to better understand them. Get hints on how to keep your carnivorous plants healthy and happy at home. Discover which carnivorous plant was a favorite of President Thomas Jefferson and which carnivorous plant was used by the surgeons in General George Washington's Revolutionary War Army.

Date: Saturday, September 6 Time: 10:30 a.m. to 12 p.m. **Location: Conservatory Classroom** 



### WORKSHOP

# MANAGING THE 4 P'S: POLLINATORS, PARASITES, PREDATORS & PESTS

# REX DUFOUR, NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY

This workshop will provide participants with information about creating urban habitat for a range of pollinators, parasites and predators, and how to conserve these beneficials. It will also discuss some common pests, and approaches to managing them by supporting a diverse habitat and avoiding use of toxic chemicals. The presentation will include some interactive discussion on pest/beneficial

identification as well as resources available to support beneficial organism habitat and ecological pest management.





Rex Dufour has been with the National Center for Appropriate Technology since 1994, and opened a new CA office for NCAT in 2001. The focus of his work is on organic and ecological pest management, ecological soil management, farmscaping, and training agriculture professionals about organic agriculture. Rex graduated from The Colorado College with a B.A. in Biology and has a M.S. in Integrated Pest Management from UC Riverside. He spent 9 years working in sustainable development and pest management in Thailand with the Peace Corps and the United Nations, and in Laos with the US State Department. Rex graduated from The Colorado College with a B.A. in Biology and has a M.Sc. in Integrated Pest Management from UC Riverside.

Date: Saturday, September 6

Time: 2 p.m. to 4 p.m.

**Location: Conservatory Classroom** 

FREE: Pre-registration required: Visit www.usbg.gov

Date: Sunday, September 7 Time: 2 p.m. to 4 p.m.

**Location: Conservatory Classroom** 

### **BOOK TALK**

### **GROW MORE WITH LESS**

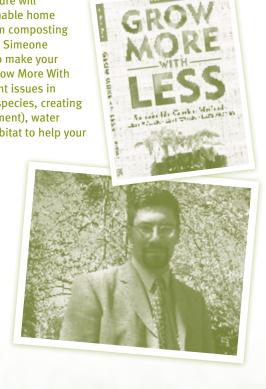
### VINNIE SIMEONE, HORTICULTURIST, LECTURER, GARDEN WRITER

With detailed strategies for both short-term and long-term gardening techniques, this lecture will provide details on how to create a sustainable home landscape with less time and money. From composting and mulching to planting natives, Vincent Simeone will cover all the eco-friendly essentials to make your garden healthier and more productive. Grow More With Less enables gardeners to tackle important issues in everyday life such as managing invasive species, creating a low maintenance lawn (or lawn replacement), water conservation and encouraging wildlife habitat to help your garden thrive.

Date: Friday, September 12 Time: 12 p.m. to 1 p.m.

Location: Conservatory Classroom FREE: Pre-registration required:

Visit www.usbg.gov





### WORKSHOP

# URBAN AGRICULTURE: SOWING SEEDS, SOWING MONEY

CAROLYN DIMITRI, PROFESSOR, DEPARTMENT OF NUTRITION, FOOD STUDIES AND PUBLIC HEALTH, NEW YORK UNIVERSITY

Urban agriculture has captured the attention of policymakers, urban dwellers, and those involved in the "good food movement." Yet farming in the city, similar to rural farming, is a risky venture that may not be profitable. As a result, many urban farms are formed as nonprofits rather than traditional, commercial farms, which raises the question of what a farm really is. This question has challenged the two government agencies (Census Bureau and Dept. of Agriculture) that have collected data on farm numbers since the 1800s. Dr. Dimitri will discuss the benefits of urban farming, as





well as the challenges facing urban farmers who seek to add to the food that makes up part of the local food system. The analysis is based on findings from a recent survey of urban farms across the US.

Carolyn Dimitri is an applied economist with expertise in food systems and food policy. She is currently on the faculty of the Department of Nutrition, Food Studies and Public Health of New York University. Dr. Dimitri is widely recognized as a leading expert on the procurement and marketing of organic food, and has published extensively on the distribution, processing, retailing, and consumption of organic food. More recent work includes urban food system issues, such as food access and urban farming systems. Prior to joining the NYU faculty in 2010, Dr. Dimitri worked as a research economist at the Economic Research Service of the US Department of Agriculture for more than a decade. She earned a PhD in Agricultural and Natural Resource Economics from the University of Maryland, College Park, and a BA in Economics from the University at Buffalo.

Date: Saturday, September 13 Time: 10:30 a.m. to 12:30 p.m. Location: Conservatory Classroom

FREE: Pre-registration required: Visit www.usbg.gov

Date: Sunday, September 14 Time: 2 p.m. to 4 p.m.

**Location: Conservatory Classroom** 

# USBG Programs on Your Schedule

### GARDEN TOURS ON YOUR MOBILE PHONE

Now you can have a private tour of the gardens and plants at the U.S. Botanic Garden Conservatory and National Garden. You are invited to use this tour when you visit or listen from home.

### How the tour works:

- Call the tour number: 202-730-9303.
- Enter the stop number from the Conservatory or National Garden to hear the message.
- Smartphone users: After dialing the tour number, you will be sent a text message with instructions for streaming audio access.

### **CONSERVATORY**

1 – USBG Brief History

10 - Garden Court

20 - West Gallery

30 - Rare & Endangered Plants

40 - Plant Exploration

50 - Orchids

60 - Medicinal Plants

70 - World Deserts

8o - Hawaii

90 - Garden Primeval

100 - Plant Adaptation

120 - Children's Garden

130 - Jungle

140 - Southern Exposure

### NATIONAL GARDEN

700 - National Garden Overview

705 - Regional Garden

710 - Butterfly Garden

715 – Rose Garden

720 - Piedmont vs. Coastal Plain

725 - Stream

730 - Cycle of Fire

735 - Sustainability

740 - Amphitheater

745 – First Ladies Water Garden

750 - Lawn Terrace

You may hang up and redial the tour at anytime. During the tour, you can control the audio by pressing 1 to rewind the recording, 2 to pause/play the recording, or press # to skip the recording.

Normal fees apply to your call.

# **BECOME A JUNIOR BOTANIST!**

Hey kids! The U.S. Botanic Garden is looking for Junior Botanists. Who are these strange green life forms among us? Since they make our lives possible, it is a good idea to get to know them! When you visit the USBG, bring along an adult advisor with an official ID (such as a driver's license) and check out a Junior Botanist Adventure Field Kit. The backpack is filled with cool tools to use during your explorations. When you complete each of the Adventure Sheets you will become an Apprentice Junior Botanist. Follow up your visit to the USBG with an at home activity, then apply to our botanist and become an official USBG Junior Botanist. Please note that completion of the Adventure Sheets usually takes an individual several visits. The program is free. *Please note:* Schools may reserve Junior Botanist on Fridays by contacting our Children's Education Specialist at Loykend@aoc.gov.

Upon successful completion of the Adventure Sheets, Junior Botanists will receive a certificate signed by our botanist, a field journal and explorer's lens.









# Certificate in Botanical Art + Illustration

# CERTIFICATE PROGRAM: 10 CREDITS OF REQUIRED COURSES AND 5 CREDITS OF ELECTIVE COURSES (15.0 CREDITS TOTAL)

The Corcoran College of Art + Design, in partnership with the U.S. Botanic Garden, is proud to offer a certificate in botanical art and illustration. This program provides an in-depth focus on the traditions, techniques and history of botanical art and illustration. Students have the opportunity to study contemporary concepts and materials, and to integrate this knowledge into the well-established and highly regarded field of botanical art and illustration.

Beginning foundation courses emphasize the accurate and detailed depiction of botanical forms. This group of electives, including watercolor, oil painting, clay and photography, will broaden each student's experience and knowledge. Courses are taught at both the Corcoran's Georgetown and Downtown campuses, as well as hosted at the United States Botanic Garden.

### SEVEN (7) REQUIRED COURSES FOR A TOTAL OF 10.0 CREDITS:

BG2200	Botany for Illustrators	(1 credit)
DR1400	Introduction to Botanical Drawing	(1.5 credits)
DR1000-level	Any drawing course	(1.5 credits)
DR1260	Color Theory	(1.5 credits)
DR2400	Intermediate Botanical Drawing	(1.5 credits)
PT1350	Introduction to Botanical Painting	(1.5 credits)
PT2400	Intermediate Botanical Painting	(1.5 credits)

## A MAXIMUM OF 10 ELECTIVE COURSES FOR A TOTAL OF 5.0 CREDITS MAY BE CHOSEN FROM THE FOLLOWING:

DR160x/DR360x	Special Topics in Botanical Illustration
PT160x/PT360x	Special Topics in Botanical Illustration
	Any 1000-level or above "BG" course

If you are interested in taking a class offered at the USBG for credit toward the Certificate in Botanical Art and Illustration, please register with the Corcoran College of Art + Design at 202-639-1820 or www.corcoran.edu/ce. The USBG will accept only noncredit registrations.



### WHAT IS THE NATIONAL FUND?

The National Fund for the United States Botanic Garden was initially established as a 501(c) 3 in 1989 to fund and build the National Garden. The National Fund now supports the educational activities of the USBG, including the National Garden Internship, an annual program that promotes "green" gardening practices through education and outreach.

Find out more at www.nfusbg.org.

### PARTNERS IN EDUCATION: THE USBG AND THE NATIONAL FUND

The U.S. Botanic Garden and the National Fund for the United States Botanic Garden jointly sponsor our public programs. Registration fees for programs are administered by the National Fund for the USBG. These fees allow us to bring you a range of educational programs, in addition to outstanding instructors and lecturers. To ensure that we may adequately plan for your attendance, please register in advance for programs. Programs with inadequate registration may be canceled. Payment cannot be accepted at the door.

## Become a Friend of the National Fund

Please join us by becoming a Friend of the National Fund and help us fund the U.S. Botanic Garden's many on-site environmental and outreach programs. Contributions are tax-deductible. Membership benefits are listed below:

### CAPITOL FRIEND (\$1,000 PER YEAR)

- Invitation to the membersonly Holiday Party
- Five complimentary guest admissions to the Spring reception
- All membership benefits listed below

### NATIONAL FRIEND (\$500 PER YEAR)

- Invitation to the membersonly Holiday Party
- Three complimentary guest admissions to the Spring reception
- All membership benefits listed below

### FIRST FRIEND (\$250 PER YEAR)

- Invitation to the membersonly Holiday Party
- One complimentary guest admission to the Spring reception
- All membership benefits listed below

### JUNIOR FRIEND (FOR FIRST FRIENDS UNDER 40; \$150 PER YEAR)

- Invitation to the membersonly Holiday Party
- One complimentary guest admission to the Spring reception
- All membership benefits listed below

### FRIEND (\$75 PER YEAR)

- Invitation to the membersonly Holiday Party
- Discounted registration fees for educational programs sponsored by the USBG
- Discounted tickets to special events sponsored by the National Fund
- Quarterly USBG Calendar of Events

### **About Registration**

- Class sizes are limited. Early registration is recommended.
- To register online for programs, go to the U.S. Botanic Garden website at www.usbg.gov.
- To register by mail, complete the form and send to:
- Registrar, U.S. Botanic Garden, 245 First St SW, Washington, DC 20024.
- To register by telephone with a credit card, call 202-225-1116.
- Registration fees must be paid in advance. Payment cannot be accepted at the door.
- The U.S. Botanic Garden reserves the right to substitute instructors or cancel programs when necessary.
- Registration fees will be refunded only in the case of program cancellation by the U.S.
   Botanic Garden.

USBG PROG	GRAM REGIST	RATION FORM				
Please print						
Name: Mr. & Mrs./Mr./Ms.						
Street Address .						
CityPhone (Required) Daytime			· · · · · · · · · · · · · · · · · · ·			
				E-mail Address		
Please indicate (X)	☐ I would like to b☐ I would like to b☐ I would like to b☐	RIEND.  ecome a FRIEND. \$75  ecome a JUNIOR FRIEND. For First I  ecome a FIRST FRIEND. \$250  ecome a NATIONAL FRIEND. \$500  ecome a CAPITOL FRIEND. \$1,000	Friends under 40; \$150 per year			
Title		# of Participants	Fees			
		FRIEND membe	rship			
Make check payable	to NFUSBG or charge to	)				
☐ Visa ☐ Mastercard ☐ Discover		Total Fees	Total Fees			
Card Number		Expiration Date -	Expiration Date			
Signature						

Mail registration form to: Registrar, U.S. Botanic Garden, 245 First St., SW, Washington, DC 20024

UNITED

245 First Street, SW Washington, DC 20024

GARDEN

BOTANIC