

# The Business of Native Plants

Generating Revenue through creative Garden Enterprises

2019 American Public Gardens Association  
Annual Conference- Washington, D.C.







M<sup>T</sup>.CUBA  
CENTER

Gardening on a higher level

# Native and Invasive Plant Nursery Inventory

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# Purpose of Survey

- What's out there?
- Assess MCC's impact
- Establish a baseline
  - Discover and monitor trends

# Nursery Selection

- 14 wholesale nurseries chosen (PA, NY, MD, VA)
  - Large companies
  - Plant type
  - Field vs. container
  - Customer type
  - No Big Box growers

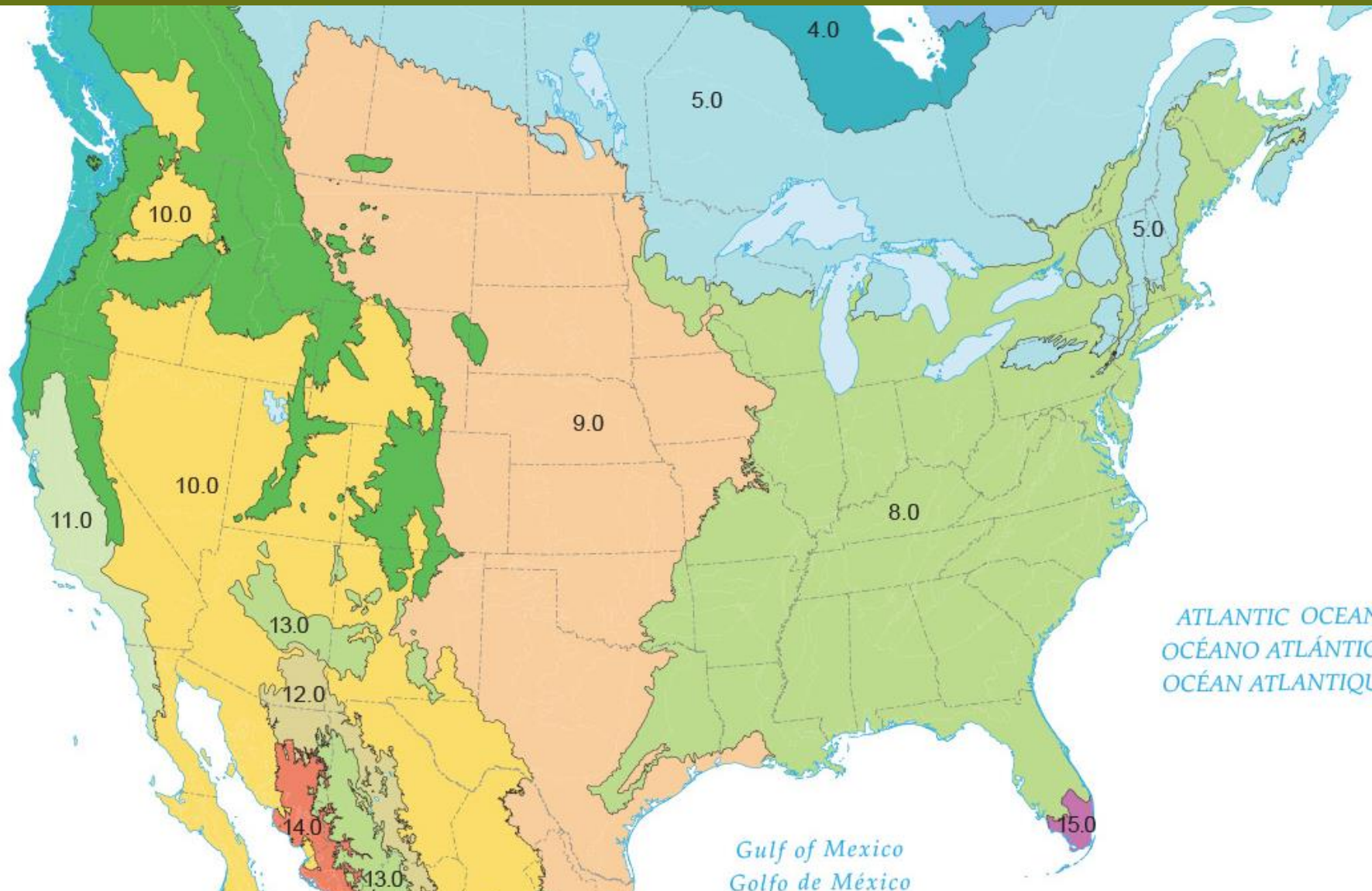
#	Name	Location by State
1	Angelica Nurseries, Inc.	MD
2	Babikow Greenhouses	MD
3	Cavano's Perennials	MD
4	Centerton Nurseries	NJ
5	Hopewell Nursery	NJ
6	Ingleside Plantation	VA
7	Johnson Farms, Inc.	NJ
8	Kurt Bluemel Nurseries	MD
9	Moon Nurseries	MD
10	Overdevest Nursery	NJ
11	Pleasant Run Nursery	NJ
12	Quality Greenhouses	PA
13	Saunders Brothers, Inc.	VA
14	Tuckahoe Nursery	NJ



# Data

- All combined: 13,464 entries
  - But only 6,885 different taxa
- Name discrepancies
- Research each unique taxon
  - Nomenclature, nativity, parentage/pedigree, invasiveness, and plant type

# Eastern Temperate Forest





# Cultivars and Hybrids

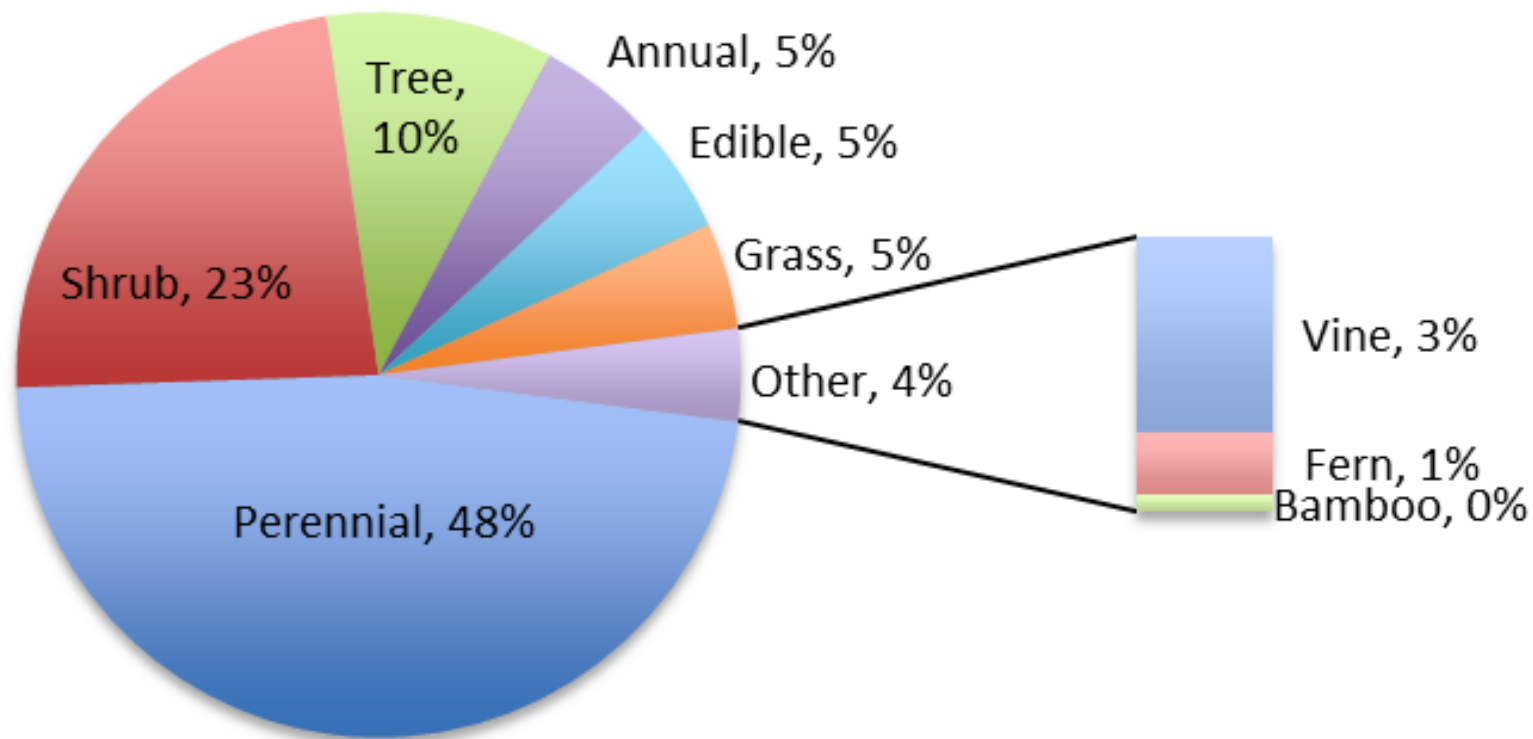
- Native cultivar: selection of a native species
- Native hybrid: hybrid of two or more native species/cultivars
  - Native range expanded: Continental U.S.
  - Excludes hybrids between genera (xHeucherella)
  - Excludes hybrids with known Asia, European, ...  
Parent

# Caveats

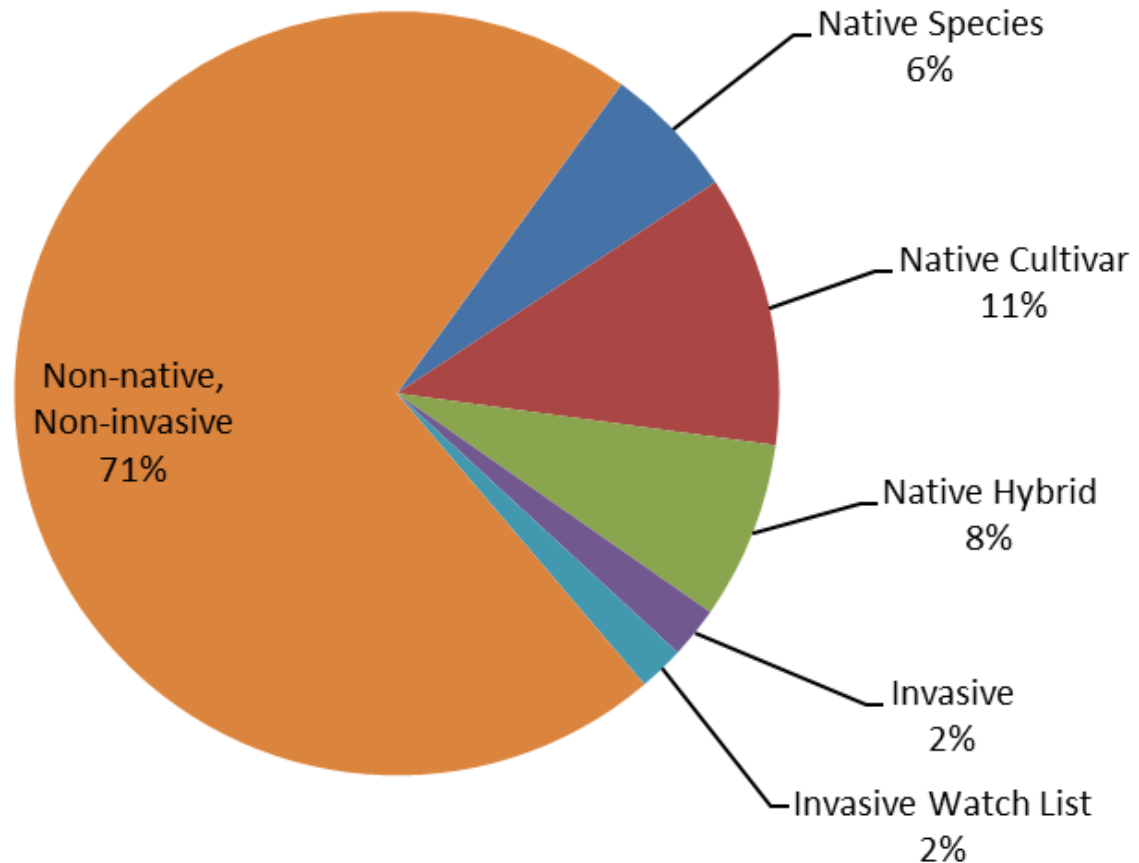
- Diversity of taxa, not sales
  - Reflects consumer access, not popularity
- Plant Types
  - Tree vs. Shrub- breakpoint at ~15-20'
    - except Japanese maples
  - Annuals
    - not specifically targeted
  - Edibles
    - non-ornamental



# All Taxa by Plant Type



## All Taxa: Native and Non-native



25% "Native"

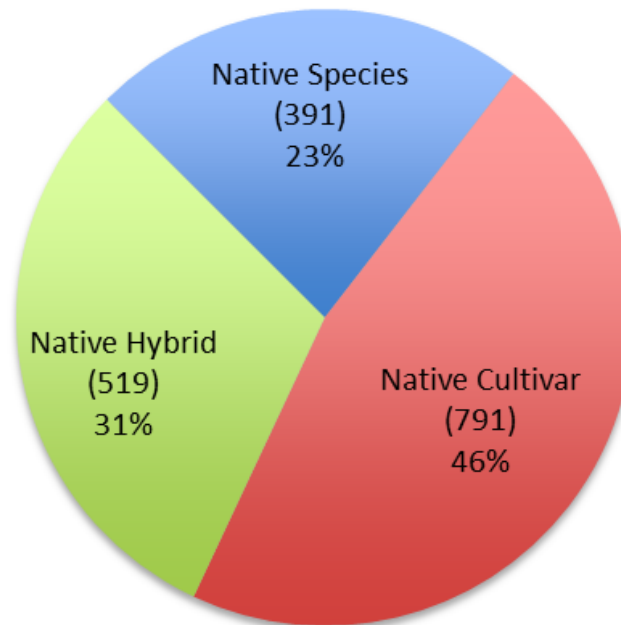
2% Invasive

2% Invasive Watch List



# Nativity Breakdown

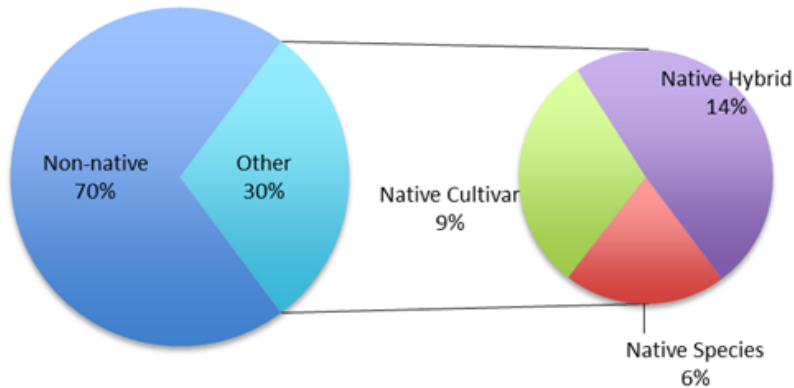
## Native Species, Cultivars, and Hybrids



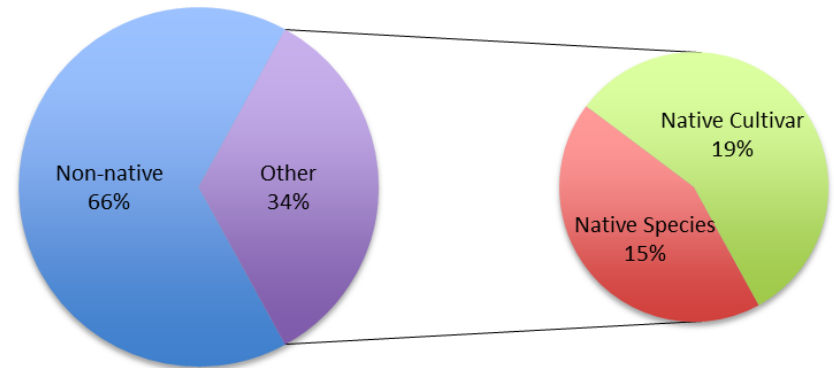
77% of "natives" exist as cultivated forms

# Nativity by Plant Type

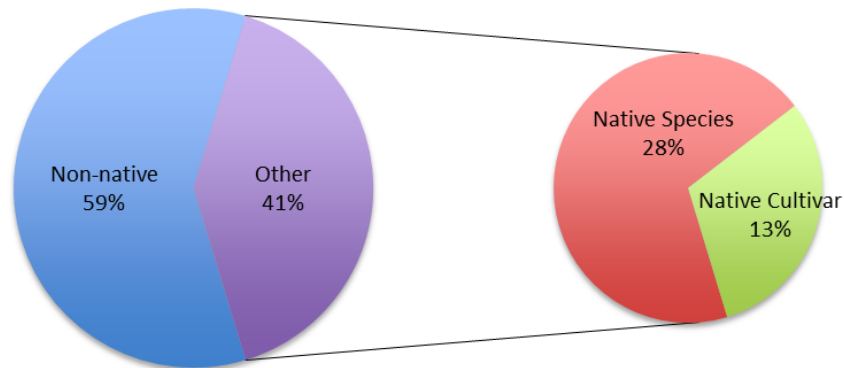
## Nativity of All Perennials



## Nativity of All Grasses and Sedges



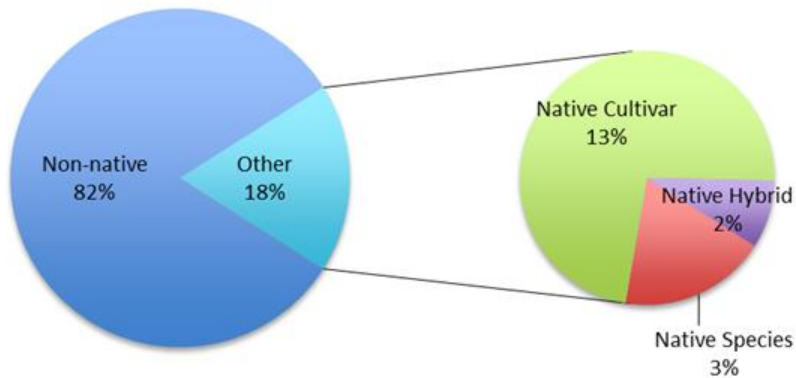
## Nativity of All Ferns



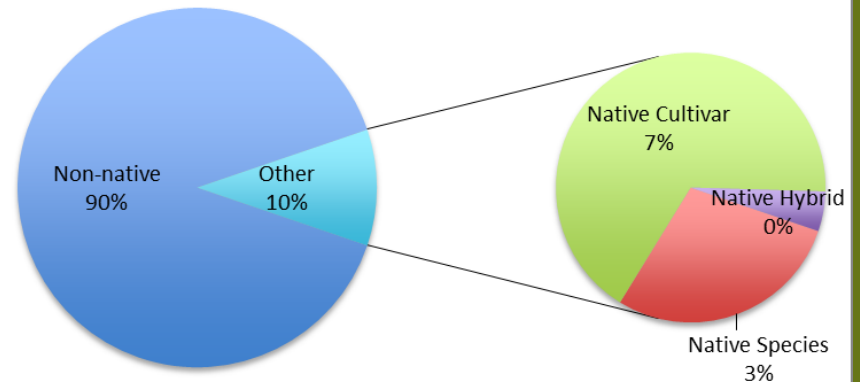


# Nativity by Plant Type

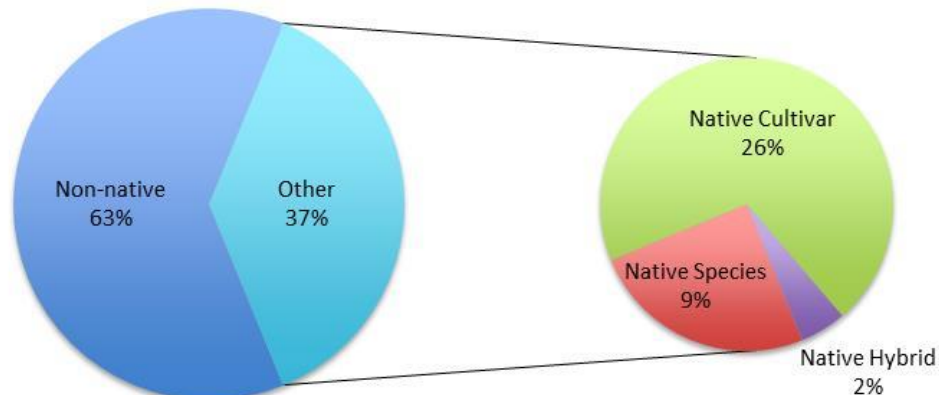
## Nativity of All Shrubs



## Nativity of All Vines



## Nativity of All Trees



## Native and Invasive Species Represented

Plant Type	# of Native Species Represented	# of Invasive Species Represented	# of Invasive Watch List Species Represented	# of Non-native, Non-Invasive Species Represented
Annual*	6	0	0	45
Bamboo	0	1	0	13
Edible*	2	0	1	62
Fern	17	0	0	22
Grass	51	2	1	57
Perennial	225	8	6	402
Shrub	79	8	9	144
Tree	68	4	4	100
Vine	10	3	0	18
<b>Grand Total</b>	<b>458 (33%)</b>	<b>26 (2%)</b>	<b>21 (2%)</b>	<b>863 (63%)</b>

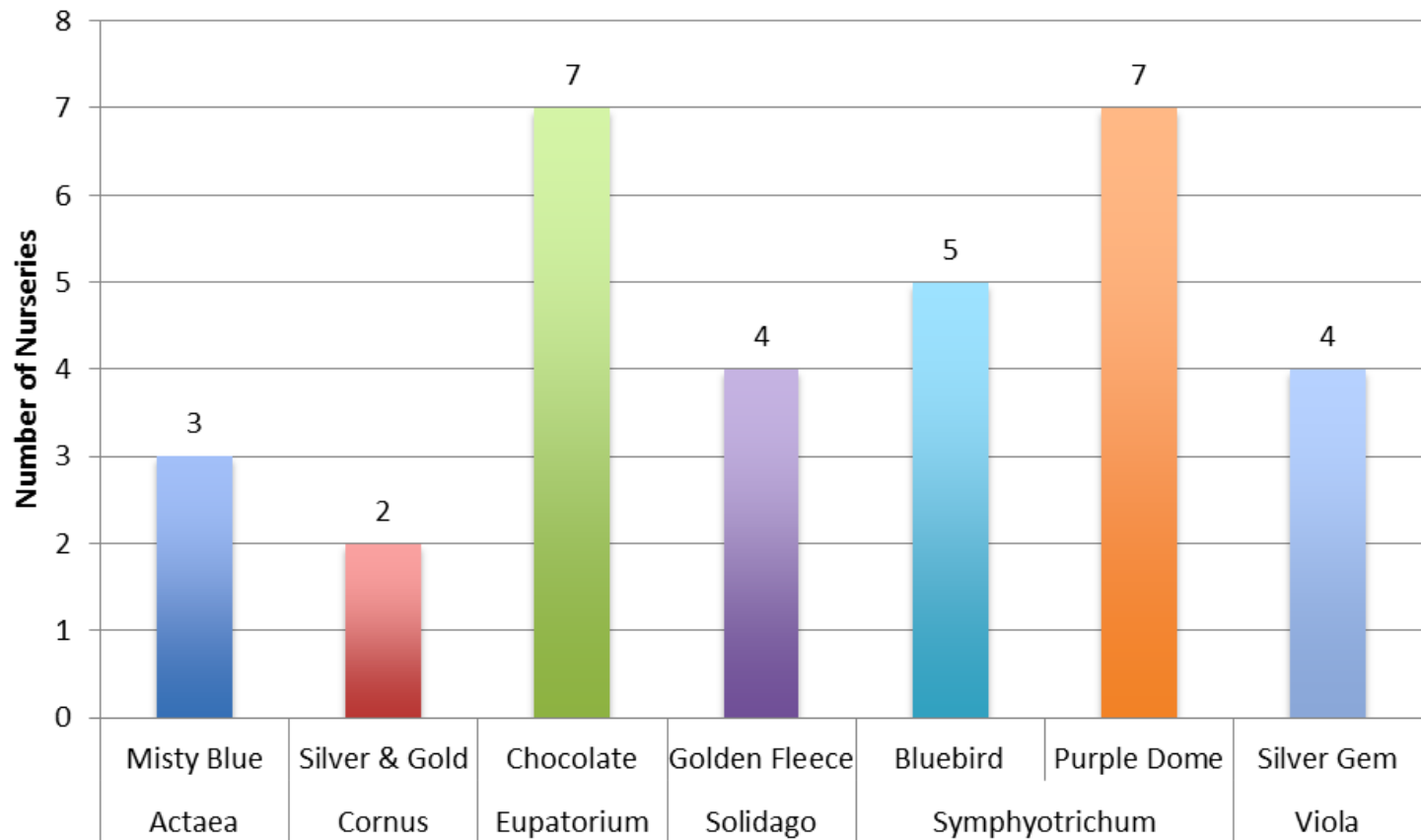
# MCC Programming

- Education/Featured Plants
  - Spring Plants: 77% available
  - Summer Plants: 78%
  - Fall Plants: 87%
  - Average= 81%
- Grown by wholesalers, but may not be stocked at retail outlets
  - Encourage people to ask for them where they shop



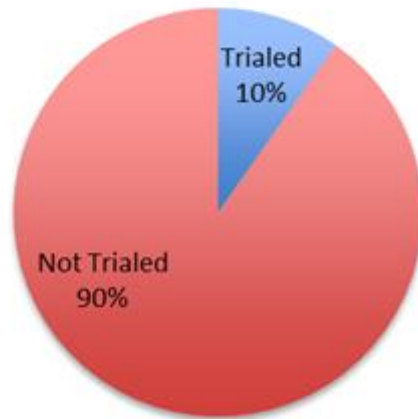
# MCC Programming

**Popularity of Available MCC Introductions**



# MCC Programming

**Native Taxa Tried by MCC**



**Comparison Taxa Tried vs. Not Tried**

		Tried		Not Tried	
Start Date	Trial	# of Taxa	% of Taxa	# of Taxa	% of Taxa
2014	Monarda	21	58%	15	42%
2012	Baptisia	19	79%	5	21%
2012	Coreopsis	40	48%	43	52%
2012	Heuchera	39	29%	95	71%
2007	Echinacea	26	25%	79	75%
2004	Aster	18	42%	25	58%
<b>Grand Total</b>		<b>163</b>	<b>38%</b>	<b>262</b>	<b>62%</b>

# Your Yard Matters

*The plants you choose can feed and support all types of wildlife.*

In 2017 Mt. Cuba Center surveyed 14 large wholesale nurseries to determine which plants are being grown in the mid-Atlantic region.

*here's what we found...*

75%  
NON-NATIVE

These plants may not be able to support much wildlife, **2% can actually escape your garden and damage the surrounding environment**

*here's what you can do...*

25%  
NATIVE

These plants provide food and habitat for wildlife. They are grown at wholesale nurseries but are not always offered at retail centers. You can influence what is sold at the retail level by requesting more native plants. Add these plants to your garden and **be a smart & active shopper!**

Here's  
*how it works*

Wholesale Nurseries

*grow plants*



Local Retail Centers

*promote & sell plants*



You

*buy plants...*



and can influence what is available at the retail center.







## North Creek Trial Gardens | Landenberg, PA





- Bringing an eco-nursery concept to market
- Building a market where one didn't exist
- Risk and reward - doing what you believe in
- Educate, market and promote what you do
- Find others that buy into your belief
- Advocate to the uninitiated about the value of native plants – ecological and environmental benefits
- Educate, Market and Promote!
- Find your niche and stay focused







All plants are not created equal, particularly in their ability to support wildlife... **unless we restore native plants to our suburban ecosystems**, the future of biodiversity in the United States is dim.

~ Douglas W. Tallamy,



*AFTER 31 YEARS WE HAVE A VALID NATIVE PLANT MOVEMENT,*



*WHICH INTURN, HAS CREATED A THRIVING NATIVE PLANT MARKET.*

- Working with Universities, Botanic Gardens other companies, and Individuals
- Seed sourcing – Local ecotype - Brandywine Conservancy and others
- Seed collection – in house
- Stock management
- Trialing - bringing plants into the market, finding partners that share values
- Find and develop markets for our product





**Pollinator week!** Celebrate the Power of Pollinators  
Bill Johnson Photography









Inspire



Promote



Educate



**GARDEN  
FOR WILDLIFE™**



### **American Beauties**

A partner since 2005, the American Beauties Native Plants offers a line of shrubs, trees, vines, grasses and wildflowers attractive to birds, butterflies and other desirable species. The plants are sold at garden centers and nurseries across the country in 32 states. As a longstanding supporter and promoter of the National Wildlife Federation's **Certified Wildlife Habitat** program, American Beauties is dedicated to promoting native plants that “bring life to the garden,” the perfect complement to the National Wildlife Federation’s efforts to encourage homeowners to create wildlife-friendly habitats.





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## Help build on the Million Pollinator Garden Movement

We surpassed our goal to [register](#) a million gardens and landscapes to support pollinators.

[Learn more about the garden networks that made this possible.](#)



Penn State » Ag Sciences » Entomology » **Center for Pollinator Research**

# Center for Pollinator Research

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## News Media Contact

University of Delaware  
Communications and Public Affairs  
302-831-NEWS  
[publicaffairs@udel.edu](mailto:publicaffairs@udel.edu)

## NEW ON UDaily

Graduate students develop photograph conservation skills by helping flood-ravaged Texas community

UD's Winter Faculty Institute 2016 workshop on PBL a success

Winter Film Series to feature 'Band Called Death,' co-director

College of Education and Human Development highlights graduate programs

Students needed to serve on Commencement Committee

## More

### Tweets

[Follow](#)

[pic.twitter.com/uD9uiLwjeq](http://pic.twitter.com/uD9uiLwjeq)



Mt. Cuba Fellow Owen Cass conducts research in 2014.

## Looking good and doing good

UD partnership with Mt. Cuba aims to make 'eco-friendly' a selling point for modern gardeners

TEXT SIZE



E-mail

Print

Twitter

Log in

10:54 a.m., Jan. 15, 2016--Some plants are known for just plain looking good. These are the beauty queens of the horticultural world, the dahlias and orchids and lilies, turning their pretty faces toward the sun as if they're aching to be adored.

University of Delaware Botanic Gardens  
Newark, Delaware





*Symphotrichum* 'Purple Dome'



*Viola* 'Silver Gem'



*Symphotrichum* 'Bluebird'



*Solidago* 'Golden Fleece'





*Iris versicolor* 'Purple Flame' | Mt Cuba Center Introduction





*Iris versicolor* 'Purple Flame' | Mt Cuba Center Introduction





*Iris versicolor* 'Purple Flame' | Mt Cuba Center Introduction















*Vernonia lettermannii* 'Iron Butterfly'









## Education Training + Employment | Internship Programs

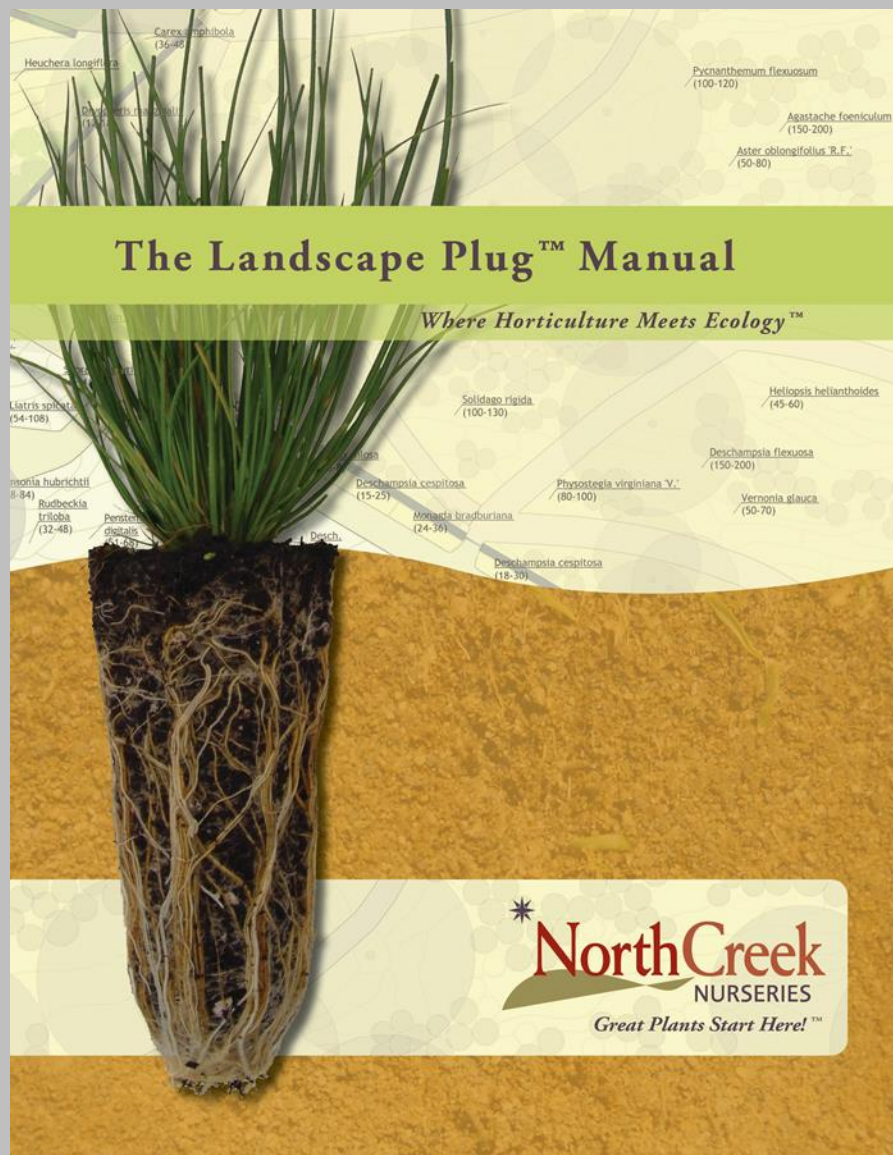








## The Landscape Plug™ – Game Changer!



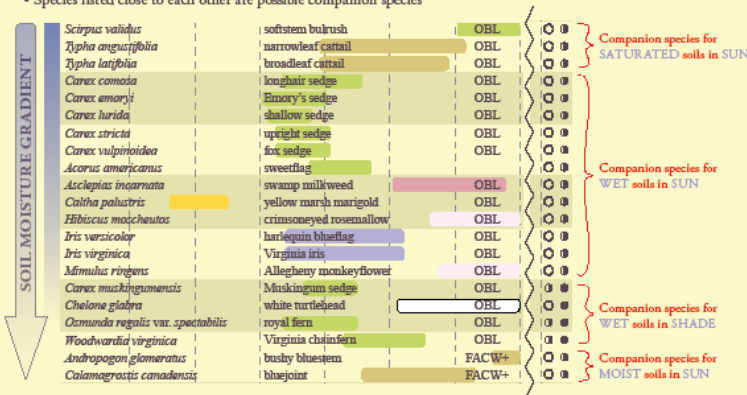
## The Landscape Plug™ Manual: Specifications, species selection, establishment

### Navigating the Species Selection Chart

Proper species selection determines a project's success. Knowing your project-specific soils, exposure, hydrology, existing vegetation and other key elements are crucial to choosing species that will quickly form stable plant communities and landscapes. Based on our plant knowledge and observations made within our trial gardens, we have developed this tool to focus on plant combinations and companion species. We hope this guide will assist you in selecting the perfect species mix for your project. Key elements of the species selection chart are explained below:

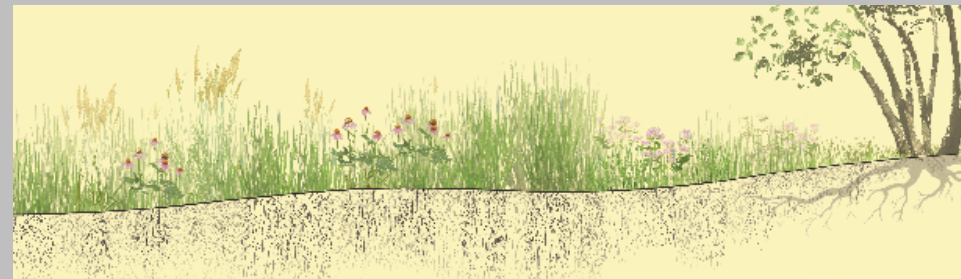
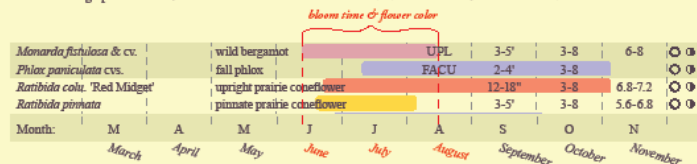
### Soil Moisture Gradient

- Species arrangement follows a gradient from saturated to dry soil conditions
- Species are grouped by light requirements within this gradient
- Species listed close to each other are possible companion species



### Bloom Time & Flower Color Grid

- Example: *Monarda fistulosa* bloomed pink from mid June to mid August
- Bloom time is weather dependent, varying by geographical locations and climatic conditions
- Combining species based on bloom time will offer continuous habitat and aesthetic value



### Facultative Upland (FACU)

### Upland (UPL)

Species	Common Name	WIS	Height	Hardiness	pH	Plant Attributes
<i>Helenium autumnale</i>	common sneezeweed	FACW+	3-5'	3-8	4-7.5	☉ ss ☉
<i>Rudbeckia laciniata</i> & cv.	cutleaf coneflower	FACW	5-8'	3-9	4.5-7	☉ ☉
<i>Solidago sempervirens</i>	seaside goldenrod	FACW	3-5'	4-9	5.5-7.5	☉ ☉ ☉
<i>Verbena hastata</i>	swamp verbena	FACW+	4-6'	3-9		☉ ☉
<i>Veronica noveboracensis</i>	New York ironweed	FACW+	4-7'	5-8	4.5-8	☉ ☉
<i>Aster novae-angliae</i>	New England aster	FACW-	3-5'	3-8	6-7	☉ ss ☉
<i>Aster novi-belgii</i>	New York aster	FACW+	3-6'	4-8	5.5-7	☉ ☉ ☉
<i>Eryngium yuccifolium</i>	button eryngo	FAC	4-5'	5-9		☉
<i>Helianthus 'Lemon Queen'</i>	sunflower		6-8'	4-9		☉ ☉
<i>Heliopsis helianthoides</i>	smooth oxeye		4-6'	4-9		☉ ☉
<i>Pycnanthemum flexuosum</i>	Appalachian mountainmint	FACW	2-3'	6-8		☉ ☉ rh ☉
<i>Pycnanthemum muticum</i>	clustered mountainmint	FACW	2-3'	4-8		☉ ☉ rh ☉
<i>Rudbeckia maxima</i>	great coneflower	FAC+	6-8'	5-8	4-7	☉
<i>Solidago graminifolia</i>	flat-top goldenrod	FAC	3-4'	3-9		☉ ☉ ☉
<i>Veronica glauca</i>	broadleaf ironweed		3-5'	6-8		☉
<i>Veronicastrum virginicum</i>	Culver's root	FACU	4-6'	3-10		☉ ☉
<i>Andropogon gerardii</i>	big bluestem	FAC	4-8'	3-9	6-7.5	☉ ☉ C4 ☉
<i>Tripsacum dactyloides</i>	eastern gamagrass	FACW	4-5'	3-9	5.1-7.5	☉ C4 ☉
<i>Deschampsia cespitosa</i> & cv.	tufted hairgrass	FACW	2-4'	4-9	4.8-7.2	☉ ☉ C3 ☉
<i>Elymus virginicus</i>	Virginia wildrye	FACW-	2-3'	3-9	5-7	☉ ☉ C3 ☉
<i>Juncus tenuis</i>	poverty rush	FAC-	1-2'	3-9	4.5-7	☉ ☉ C3 ☉
<i>Amsonia hubrichtii</i>	Hubricht's bluestar		3'	5-9		☉ ☉
<i>Asclepias purpurascens</i>	purple milkweed	FACU	2-3'	5-9		☉ ☉
<i>Aster laevis</i> 'Bluebird'	smooth blue aster		3-4'	4-8	5.8-7.8	☉ ☉ ☉
<i>Liatris spicata</i>	dense blazing star	FAC+	3-5'	3-9	5.6-7.5	☉ ss ☉
<i>Monarda bradburiana</i>	eastern beebalm		1-2'	4-8		☉ ☉
<i>Monarda didyma</i> 'Jacob Cline'	scarlet beebalm	FAC+	3-5'	3-8		☉ ☉
<i>Oenothera fruticosa</i> & cv.	narrowleaf evening primrose	FAC	2-3'	4-9	4.5-7	☉ ss ☉ ☉
<i>Penstemon digitalis</i> & cv.	tufted penstemon	FAC	3-4'	3-8	5.5-7	☉ ☉ rh ☉ ☉
<i>Phlox pilosa</i>	downy phlox	FACU	1-2'	5-8		☉ ☉
<i>Physostegia virginiana</i> cvs.	obedient plant	FAC+	2-3'	3-9		☉ ☉
<i>Rudbeckia fulg.</i> var. <i>fulg.</i> & cv.	orange coneflower	FAC	2-3'	5-7		☉ ☉
<i>Rudbeckia triloba</i>	brown-eyed Susan	FACU	2-3'	5-7		☉ ☉
<i>Solidago rugosa</i> 'Fireworks'	wrinkleleaf goldenrod	FAC	3-4'	4-9	5-7.5	☉ ☉ rh ☉
<i>Zizia aurea</i>	golden zizia	FAC	2-3'	4-9		☉ ☉
<i>Carex amphibia</i>	eastern narrowleaf sedge	FAC	1-2'	3-9	5.9-7	☉ ☉ C3 ☉
<i>Carex flaccidisperma</i>	thinfruit sedge	FAC	6-12"	5-8	4.6-7.1	☉ ☉ C3
<i>Carex pennsylvanica</i>	Pennsylvania sedge		8-12"	4-8		☉ ☉ C3
<i>Aquilegia canad.</i> 'Little Lanterns'	red columbine	FAC	12-18"	3-8	>6.8	☉ ☉







# Brookside Gardens | Montgomery County, MD





# Brookside Gardens | Montgomery County, MD





## Brubaker Run Floodplain Restoration | Lancaster County, PA





## Butterfly Acres Groundwater Recharge | Lititz, PA





# Landis Homes Floodplain Restoration | Lancaster County, PA









## Millersville NPITL Rain Garden Planting Workshop | Landenberg, PA











Motivate



Educate



Cultivate



*PLANTS ARE NOT A LUXURY, ESPECIALLY NATIVE PLANTS*



*THEY ARE A VITAL PART OF WHAT KEEPS OUR WORLD IN BALANCE.*





THE  
POLLY HILL  
ARBOR ETUM

Backyard Habitat  
Project  
and  
Habitat Kids



# MV Wildtype: Preserving Local Ecotypes: One Seed, One Arboretum, One Island at a Time

MV WILDTYPE



ACTING **LOCALLY**  
*on the Island of Martha's Vineyard*

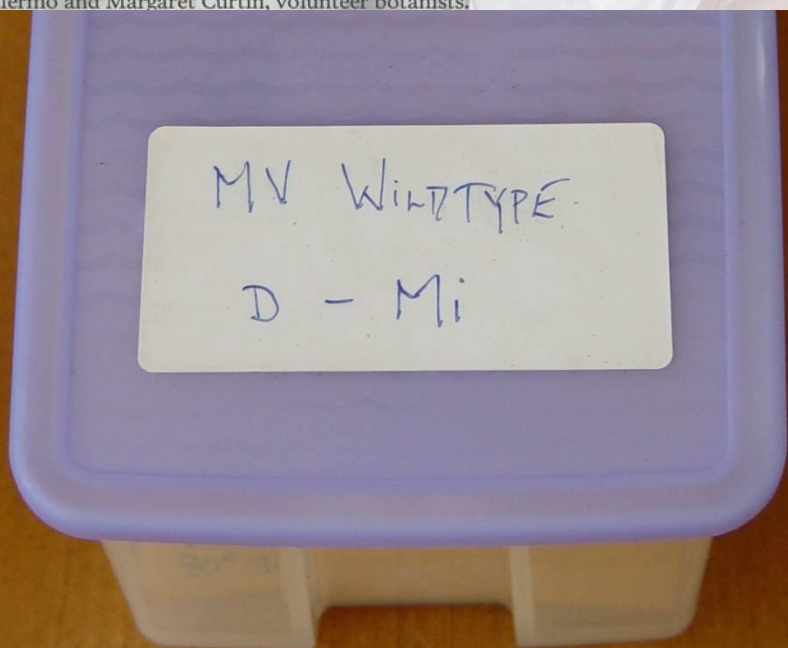
Ailanthus webworm moth  
on orange butterflyweed.

PHOTO COURTESY OF  
JUDY HOLLAND-MCCHESNEY





Gregory Palermo and Margaret Curtin, volunteer botanists.















PLANT  
SALE







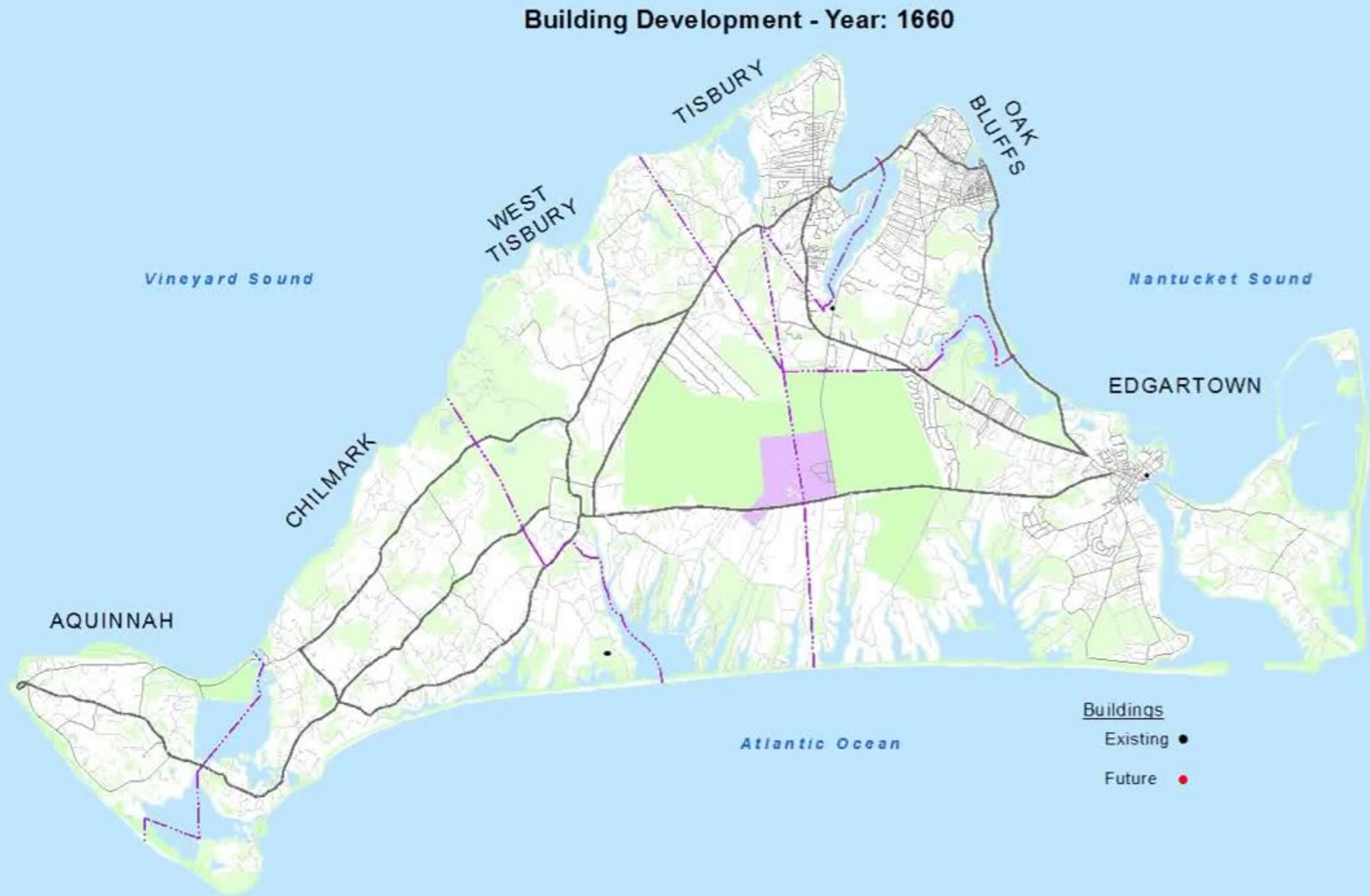
# Habitat Kids

conservation education through habitat stewardship





# Why Habitat Kids?



Development on MV from 1660-2011



Habitat fragmentation is when **habitat** is broken into pieces





When habitat gets broken up into smaller pieces, it is hard for animals to find:

- **FOOD • WATER • SHELTER**





# We will use satellite images to study how development has changed MV over time



1938



1979



2014





# 1938

Use a grid to determine how much land falls under each category

Land-cover classes:

- Grass, field
- Trees, forest
- Pavement and buildings or houses



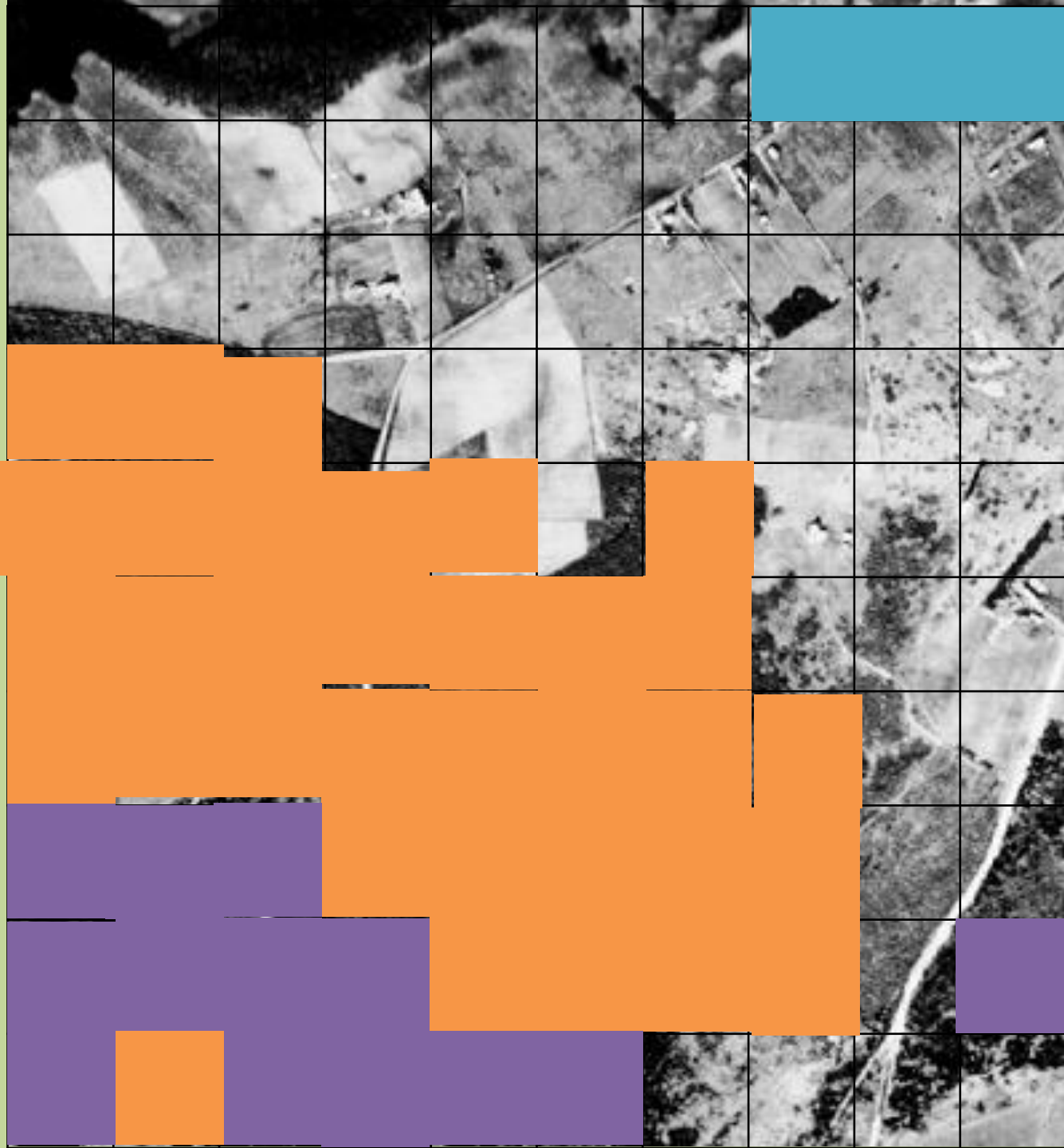


# 1938

Use a grid to  
determine how  
much land falls  
under each  
category

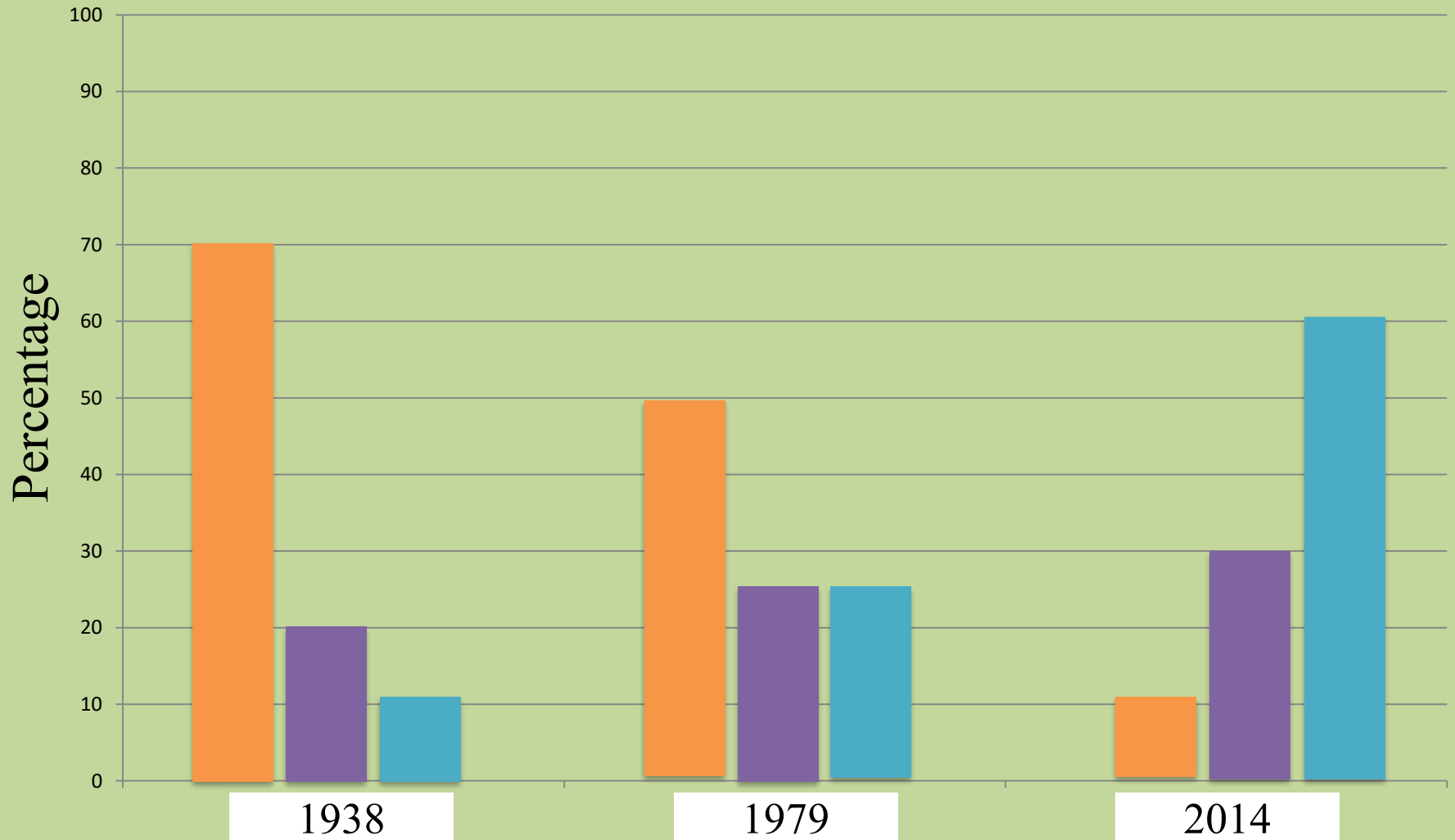
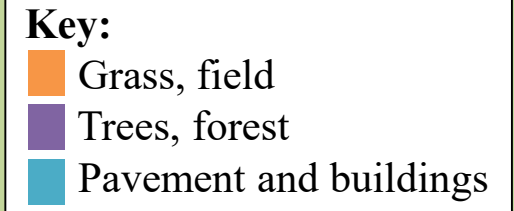
Land-cover classes:

- Grass, field
- Trees, forest
- Pavement and  
buildings or  
houses





# Land Change Over Time





# Habitat stepping-stones connect fragmented habitats





# Conservation



Short:



"Stepping stones help  
to re-connect habitat  
for a bumblebee  
population"













# Habitat Kids Plants

*Grown by MV 3rd graders to help reconnect our Island habitats*

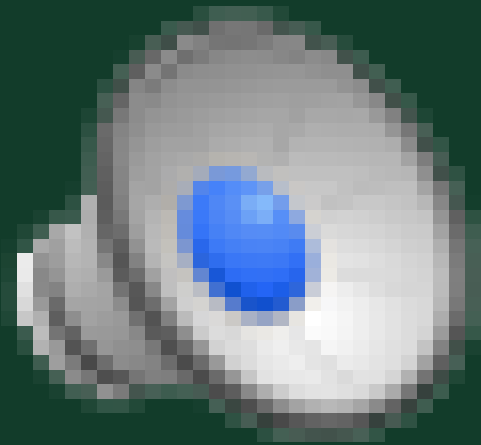
## Plants with ORANGE tags

These plants were grown from native plant seed that was collected and sown by Martha's Vineyard 3rd graders as a part of PHA's Habitat Kids conservation stewardship program. The student's goal is to reconnect habitat for wildlife by providing native plant material for backyard plantings.





# Martha's Vineyard Backyard Habitat Project









Plant a patch of  
Vineyard native habitat  
in your backyard and  
help Martha's Vineyard  
wildlife





# Change on Martha's Vineyard



Houses are here to stay – lets make them a part of the solution!



# Why Not in My Backyard?



Martha's Vineyard hosts significant habitat that supports biodiversity



Our natural habitats are threatened by development that has caused them to become fragmented



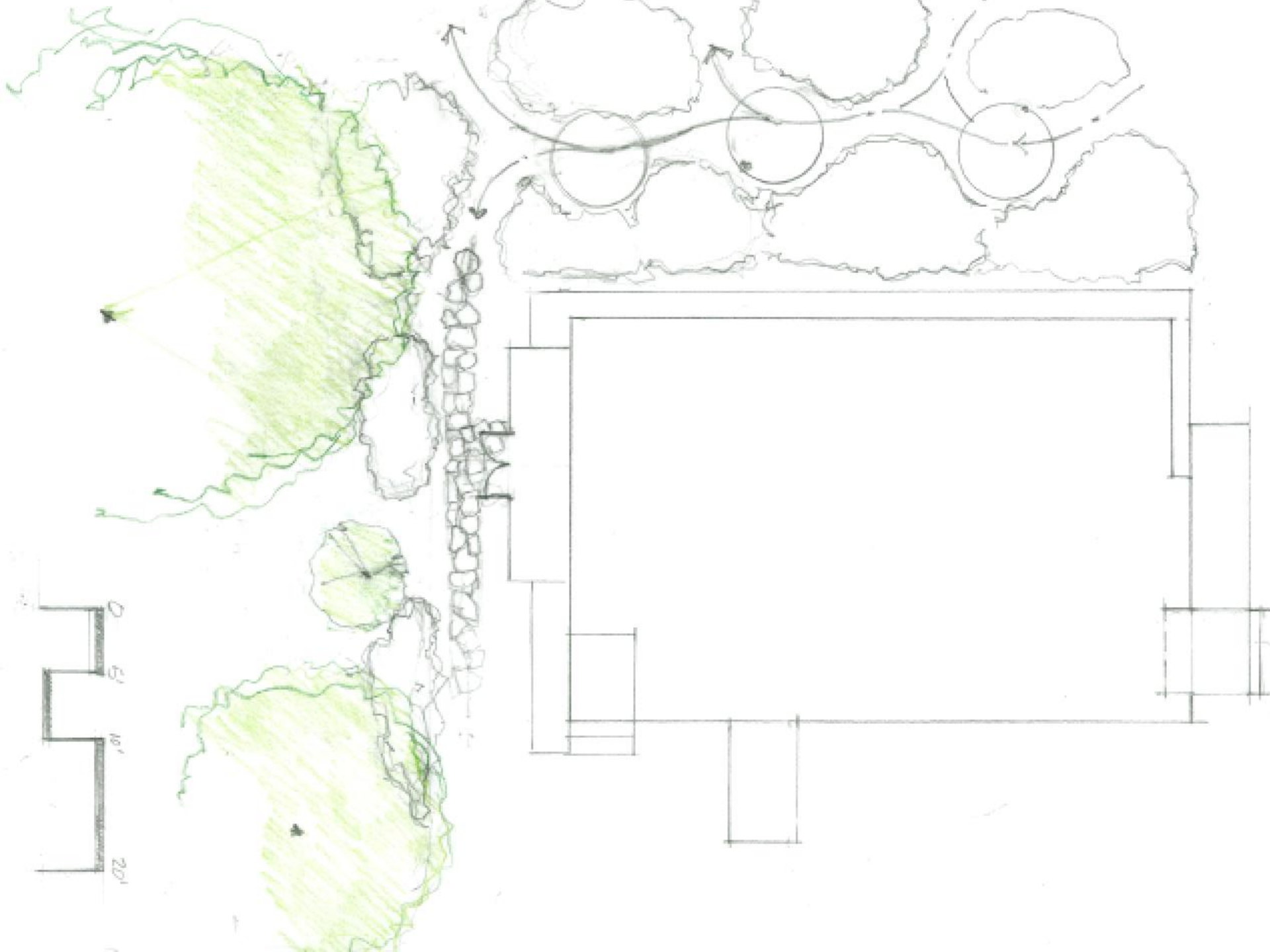
Restoring habitat connections across MV is critical to protecting Island biodiversity



Your backyard can act as a stepping stone to help support wildlife









# Be a Part of the Solution!



Take home a Backyard Habitat Kit  
and create native plant habitat in  
your own backyard to help reconnect  
our Island's natural areas and  
preserve biodiversity



Backyard Habitat Kits are available  
for purchase outside in the plant  
sale area





# Santa Barbara Botanic Garden



Plant Introduction Program

Bruce Reed 2019



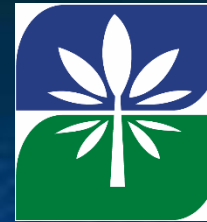


**EL NATIVIO GROWERS**

An Ironwood Unlimited, Inc. Company



Suncrest Nurseries



San Marcos  
Growers



UNIVERSITY of CALIFORNIA

**BOTANICAL  
GARDEN**  
at BERKELEY



recon native plants



UC Davis Arboretum



**NATURAL  
HISTORY  
MUSEUM**  
LOS ANGELES COUNTY





Carol Bornstein



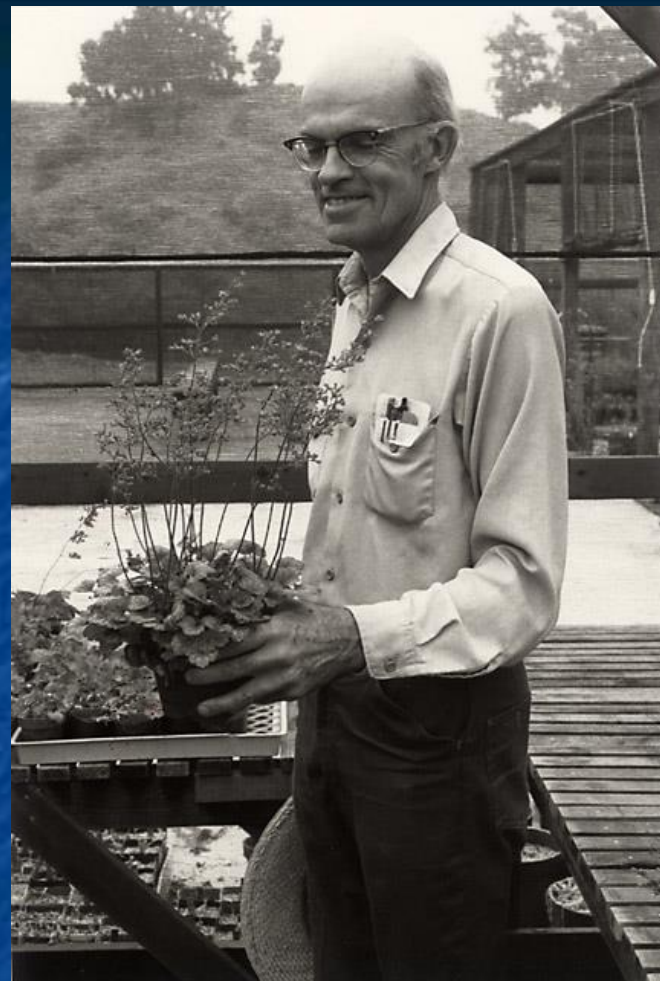
## SANTA BARBARA BOTANIC GARDEN

### Plant Introduction Program

#### Cultivar Licensing Fees

Aesculus californica 'Canyon Pink'  
Arctostaphylos 'Arroyo Cascade'  
Arctostaphylos 'Canyon Blush'  
Arctostaphylos insularis 'Canyon Sparkles'  
Arctostaphylos 'White Lanterns'  
Artemisia californica 'Canyon Gray'  
Berberis 'Mission Canyon'  
Ceanothus 'Far Horizons'  
Ceanothus arboreus 'Powder Blue' - **\$200 one-time fee**  
Ceanothus 'Wheeler Canyon'  
Condea (Hyptis) emoryi 'Silver Lining' - **\$200 one-time fee**  
Constancea (Eriophyllum) nevinii 'Canyon Silver'  
Corethrogyne (Lessingia) filaginifolia 'Silver Carpet'  
Corethrogyne (Lessingia) filaginifolia 'Smart Aster'  
Fremontodendron 'Dara's Gold' - **\$0.25 royalty fee**  
Gambelia (Galvezia) juncea 'Gran Canon' – **\$200 one-time fee**  
Grindelia 'Ray's Carpet'  
Heuchera – Canyon Quartet series: - **all are patented and have \$0.10 royalty fee**  
    'Canyon Belle'  
    'Canyon Chimes'  
    'Canyon Duet'  
    'Canyon Melody'  
Heuchera 'Blushing Bells'  
H. 'Canyon Delight'  
H. 'Canyon Pink'  
H. 'Dainty Bells'  
H. 'Pink Wave'  
Iris 'Canyon Bliss' - **\$0.25 royalty fee**  
Iris 'Canyon Gold'  
Iris 'Canyon Snow'  
Iris 'Canyon Sunshine' - **\$0.25 royalty fee**  
Leymus condensatus 'Canyon Prince'  
Lupinus 'Canyon Sunset'  
Salvia leucophylla 'Amethyst Bluff' - **\$0.10 royalty fee**  
Salvia cedrosensis 'Baja Blanca'  
Salvia 'Dara's Choice'  
Salvia spathacea 'Avis Keedy' – **\$0.10 royalty fee**  
Salvia 'Pacific Blue' - **\$200 one-time fee**  
Senecio 'Silver and Gold' -- **\$0.15/gallon, \$0.09/4" royalty fees**  
Sphaeralcea fulva 'La Luna' - **\$0.10 royalty fee**  
Symphyotrichum (Aster) chilensis 'Purple Haze' - **\$200 one-time fee**  
Verbena lilacina 'De La Mina' - **\$0.10/gallon, \$0.07/4", \$0.04/liner royalty fees**

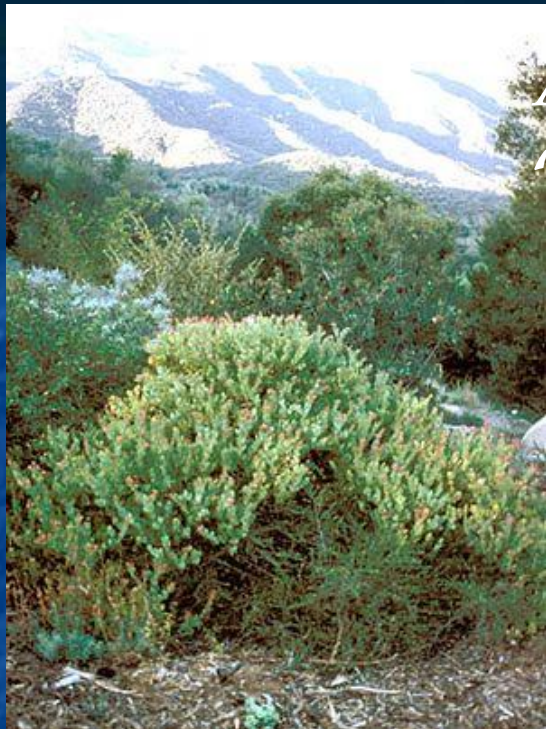




Dara Emery  
*Heuchera Canyon  
Quartet Series*



*Arctostaphylos*  
'Canyon Blush'



*Artemisia*  
'Canyon Gray'







*Leymus* 'Canyon Prince'





*Iris 'Canyon Snow'*





*Symphyotrichum chilensis*  
'Purple Haze'



*Gambelia* 'Gran Canon'





*Sphaeralcea* 'La Luna'



*Salvia* 'Avis Keedy'







*Verbena 'De La Mina'*











*Senecio palmeri*  
'Silver and Gold'







Santa Barbara Botanic Garden  
Plant Introduction Program

Royalty Agreement

This document specifies the terms of agreement between the cooperating nursery and the Santa Barbara Botanic Garden (SBBG) for the production and sale of the plant named ***Senecio palmeri* 'Silver and Gold'** (accession number08-103).

Cooperating Nursery: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

Resale Certificate No: \_\_\_\_\_

Today's Date: \_\_\_\_\_

In distributing these plants, the cooperating nursery agrees to the following conditions:

1. Royalty: For each plant sold a royalty of \$0.15/one gallon and \$0.09/4" pot will be paid to the Santa Barbara Botanic Garden. Payments for the period January through June are due by July 31, payments for July through December are due January 31. Royalty payments should be sent to Santa Barbara Botanic Garden, Accountant, 1212 Mission Canyon Rd., Santa Barbara, CA 93105.

2. Labeling: Plants for sale will be labeled by the grower and will include the cultivar name and the words "Santa Barbara Botanic Garden Introduction. Royalties apply."

Name (print or type): \_\_\_\_\_

Authorized signature: \_\_\_\_\_

Date: \_\_\_\_\_

Send this form to: Bruce Reed, Horticulturist  
Santa Barbara Botanic Garden  
1212 Mission Canyon Road  
Santa Barbara, CA 93105

For questions regarding this program, contact Bruce Reed at 805-682-4726, ext. 114; e-mail [breed@sbbg.org](mailto:breed@sbbg.org).



## Sales Declaration Report

Please remit to: Santa Barbara Botanic Garden  
 Attention: Accountant  
 1212 Mission Canyon Road  
 Santa Barbara, CA 93105  
 (805) 682-4726 ext.114  
 Fax: (805) 690-1128  
 e-mail: breed@sbbg.org  
 Account code: 3652-A-1300

From: Bruce Reed, Santa Barbara Botanic Garden

Re: Sales Declarations for the 6 month period ending Dec 31, 2016

Please complete the table below:

Variety	Unit Royalty	Units due for 6 months to 12/31/16	Royalty sum due
<i>Heuchera</i> 'Canyon Belle'	\$0.10		\$
<i>Heuchera</i> 'Canyon Duet'	\$0.10		\$
<i>Heuchera</i> 'Canyon Chimes'	\$0.10		\$
<i>Heuchera</i> 'Canyon Melody'	\$0.10		\$
<i>Verbena</i> 'De La Mina'			
gallon containers	\$0.10		\$
4" containers	\$0.07		\$
plugs	\$0.04		\$
<i>Salvia leucophylla</i>	\$0.10		\$
'Amethyst Bluff'			
<i>Salvia spathacea</i> 'Avis Keedy'	\$0.10		\$
<i>Fremontodendron</i> 'Dara's Gold'	\$0.25		\$
<i>Sphaeralcea fulva</i> 'La Luna'	\$0.10		\$
<i>Iris</i> 'Canyon Bliss'	\$0.25		\$
<i>Iris</i> 'Canyon Sunshine'	\$0.25		\$
<i>Senecio palmeri</i> 'Silver and Gold' -- gallons	\$0.15		\$
4" containers	\$0.09		
		<b>TOTAL DUE:</b>	<b>\$</b>

Signature of person completing this form:

Please make check payable to Santa Barbara Botanic Garden and return with copy of this form to the address above.



	Totals to date
Heuchera 'Canyon Belle'	\$13,209.58
Heuchera 'Canyon Melody'	\$6,134.08
Heuchera 'Canyon Duet'	\$18,357.24
Heuchera 'Canyon Chimes'	\$2,415.61
Heuchera cvs (unspecified)	\$7,302.60
	\$47,419.11
subtotal of Heucheras	\$47,419.11
Other	\$141.36
Arctostaphylos 'Arroyo Cascade'	\$125.00
Arctostaphylos 'Canyon Sparkles'	\$75.00
Aster 'Purple Haze'	\$600.00
Ceanothus 'Powder Blue'	\$359.00
Galvezia 'Gran Canon'	\$200.00
Fremontodendron 'Dara's Gold'[,]	\$1,529.25
Hyptis 'Silver Lining'	\$0.00
Iris 'Canyon Bliss'	\$14.25
Iris 'Canyon Sunshine'	\$782.75
Iris 'Canyon Velvet'	\$18.75
Salvia 'Amethyst Bluff'	\$1,166.15
Salvia 'Avis Keedy'	\$1.70
Salvia 'Baja Blanca'	\$272.50
Salvia 'Pacific Blue'	\$400.00
Senecio 'Silver and Gold'	\$225.24
Sphaeralcea 'La Luna'	\$549.10
Verbena 'De La Mina'	\$14,381.07
Totals	\$68,260.23











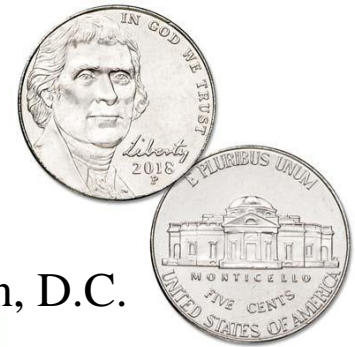
# Thomas Jefferson and Native Plants- Monticello's Center for Historic Plants

Keith Nevison

Manager of Farm and Nursery Operations

Thomas Jefferson Foundation, Monticello

American Public Gardens Association National Conference – Washington, D.C.





*“cultivators of the earth are the most valuable citizens. they are the most vigorous, the most independant, the most virtuous, & they are tied to their country & wedded to it's liberty & interests by the most lasting bands.”*

**Thomas Jefferson** to John Jay, Paris, 23 Aug. 1785





# Thomas Jefferson Center for Historic Plants (CHP)

- Founded in 1986 to collect, preserve, and distribute *historic* plant varieties
- Over 400 plants for sale, including many natives (44%)
- ~\$400,000 annual revenue (56% seeds, 44% plants)
- Plants sold at David M. Rubenstein Visitor Center Gift Shop and online at:  
[www.monticelloshop.org](http://www.monticelloshop.org)





# What are some iconic native plants of Monticello?

- Virginia bluebells (*Mertensia virginica*)- TJ: “the bluish colored, funnel-formed flower in the low grounds in bloom”
- Eastern redbud (*Cercis canadensis*)- “esculent” tree
- Flowering dogwood (*Cornus florida*)-  
Virginia state flower- 1918 and state tree- 1956
- Twinleaf (*Jeffersonia diphylla*)- Genus named by UPenn Botanist Benjamin Smith Barton





# “The Grove”- Jefferson’s ornamental forest

- 18 acres on the NW side of the West Lawn
- Comprised of tulip poplar (*Liriodendron tulipifera*)- “The Juno of our Groves”, plus a “shrubbery” inclu. *Callicarpa americana*, *Calycanthus floridus*, *Clethra alnifolia*, etc.
- Jefferson describing the ease of creating of American gardens- “We have only to cut out the superabundant plants”





# More on Jefferson and trees

- *"I wish I was a despot that I might save the noble, beautiful trees that are daily falling sacrifice to the cupidity of their owners, or the necessity of the poor. . . The unnecessary felling of a tree, perhaps the growth of centuries, seems to me a crime little short of murder."*



Allegedly stated  
during a dinner  
conversation at  
the President's  
House



# More on Jefferson and trees

- Two months before his death, at the age of eighty-three, he designed an arboretum for the University of Virginia.
- *"Too old to plant trees for my own gratification I shall do it for posterity."*



TJ to Constantine Samuel Rafinesque, 9 Oct. 1822

Conjectural perspective view from within the botanical garden, looking east towards the Rotunda and Anatomical Theater, ca. 1830. Plan by Jenny Jones. From Lily Fox-Bruguiere, "An Uncultivated Legacy: Jefferson's Botanical Garden at the University of Virginia," U.Va. Master's Thesis, 2010 (Masters Arch. Hist. 2010 .F69)



# Thomas Jefferson and Climate Change

- For over 50 years, TJ kept a consistent record of weather observations, including measuring precipitation, recording daily temperature range, and noting phenological data (bird appearances, leaf stages, frosts, etc.)
- His “indexes of climate” intended to form the foundation of a reliable theory of weather and climate.
- Conceived the first national network of weather observers
- “An unfortunate fluctuation between heat and cold...very fatal to fruits”  
TJ, Notes on the State of Virginia

The image shows a handwritten page from Thomas Jefferson's 'Notes on the State of Virginia', specifically the 'Indexes of Climate' for the year 1795. The page is filled with dense, cursive handwriting, organized into columns for various weather and climate observations. The columns include dates, temperature ranges, precipitation, and other meteorological data. The handwriting is in ink on aged paper, and the page is numbered '1005' at the top right.



# Lewis & Clark- Corps of Discovery

- Launched principally as a scientific expedition to explore the wilderness and discover novel species
- “Gardeners in the East able to feast their eyes on the West for the first time” Andrea Wulf (Founding Gardeners)





# Lewis & Clark- Corps of Discovery plants

- Seeds/plant material sent primarily to nurserymen: Bernard McMahon and William Hamilton
- Osage orange (*Maclura pomifera*)- “slips of Osages Plums and Apples” sent to TJ March 26<sup>th</sup>, 1804. *Bois d’arc* (bow wood). Most planted tree in United States by mid-19<sup>th</sup> C.
- Blanketflower (*Gaillardia aristata*)- collected July 6<sup>th</sup>, 1806 during crossing of Continental Divide





# Lewis & Clark- Corps of Discovery plants

- Camas (*Camassia quamash*)- “it resembles lakes of fine clear water, so complete is this despection that on first sight I could have swoarn it was water." Lewis, 1806
- Snowberry (*Symphoricarpos albus*)- “An object as singular as it is beautiful”- TJ to Mme. de Tesse, 1813
- Oregon grape (*Mahonia aquifolium*)- named in honor of Bernard McMahon, prominent Philadelphia nurseryman





# Monticello/CHP seed lines

## Young Gardener Seed Collection

YOUNG  
GARDENER

“...but tho’ an old man, I am but a young gardener” (Jefferson to Peale, August 20<sup>th</sup>, 1811)

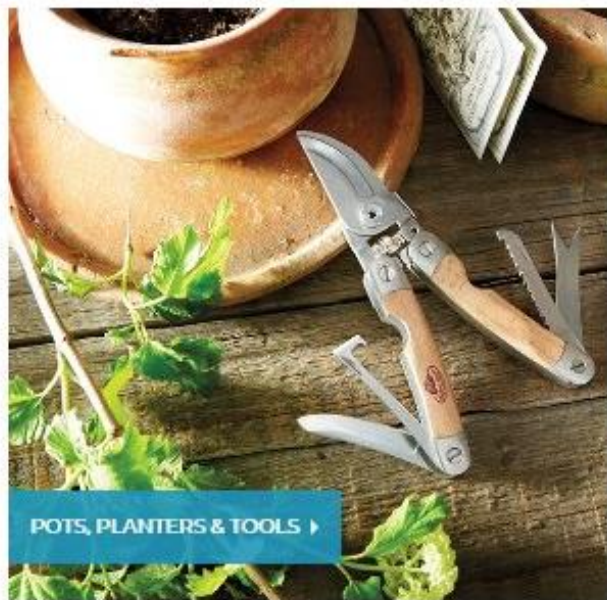




# Garden

HOME > GARDEN

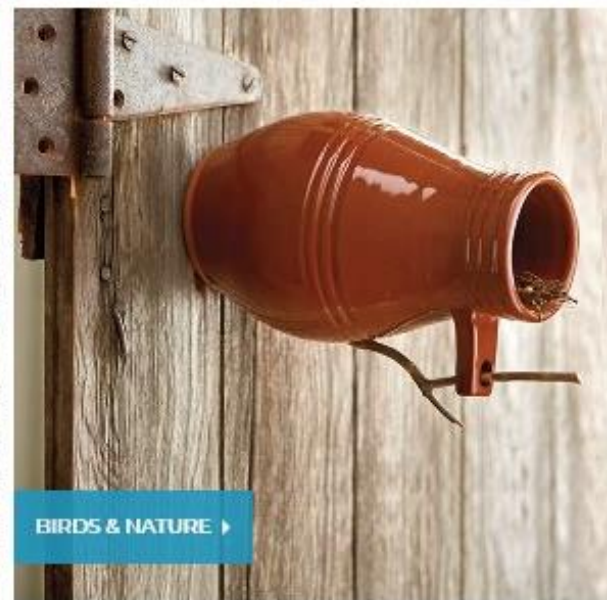
Thomas Jefferson was a revolutionary gardener and Monticello is renowned for the beauty and function of its gardens. Our farm and garden collection has what you need to go from seed to table. We have an extensive selection of heirloom seeds and plants. Find garden tools, pots, planters and trellises. Add style to your outside space with our outdoor benches, bird houses, and garden and outdoor décor.



POTS, PLANTERS & TOOLS ▶



GARDEN ACCENTS ▶



BIRDS & NATURE ▶



# Marketing and Outreach

## MONTICELLO » Farm and Garden »

## MONTICELLO » Farm and Garden »

A warm welcome back to your monthly Farm and Garden e-newsletter! Each month we will share stories, updates and voices on our shared interests. Join our [Farm & Garden Facebook](#) group for more regular updates.

**Bluebirds Thriving at Monticello's  
Center for Historic Plants**

Joined ▾ ✓ Notifications ➦ Share ... More

Write Post Add Photo/Video Live Video More



Hi, Keith. Write something here...

GROUP BY



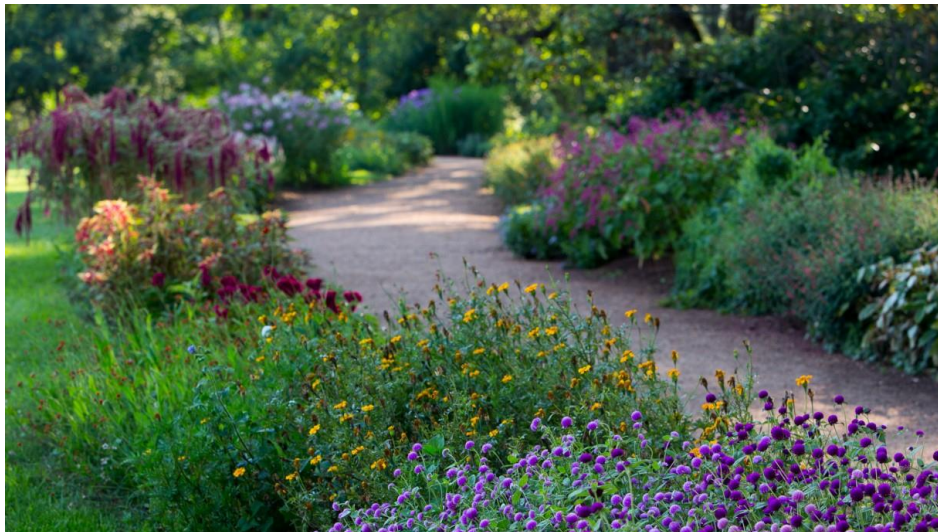
**Thomas**  
72,377 lik





*“no occupation is so delightful to me as the culture of the earth, & no culture comparable to that of the garden. such a variety of subjects, some one always coming to perfection, the failure of one thing repaired by the success of another, & instead of one harvest a continued one thro’ the year.”*

**Thomas Jefferson** to Charles Willson Peale, Poplar Forest, VA, 20 Aug. 1811





# Thank you!

