



Yavapai County  
Master Gardener Association

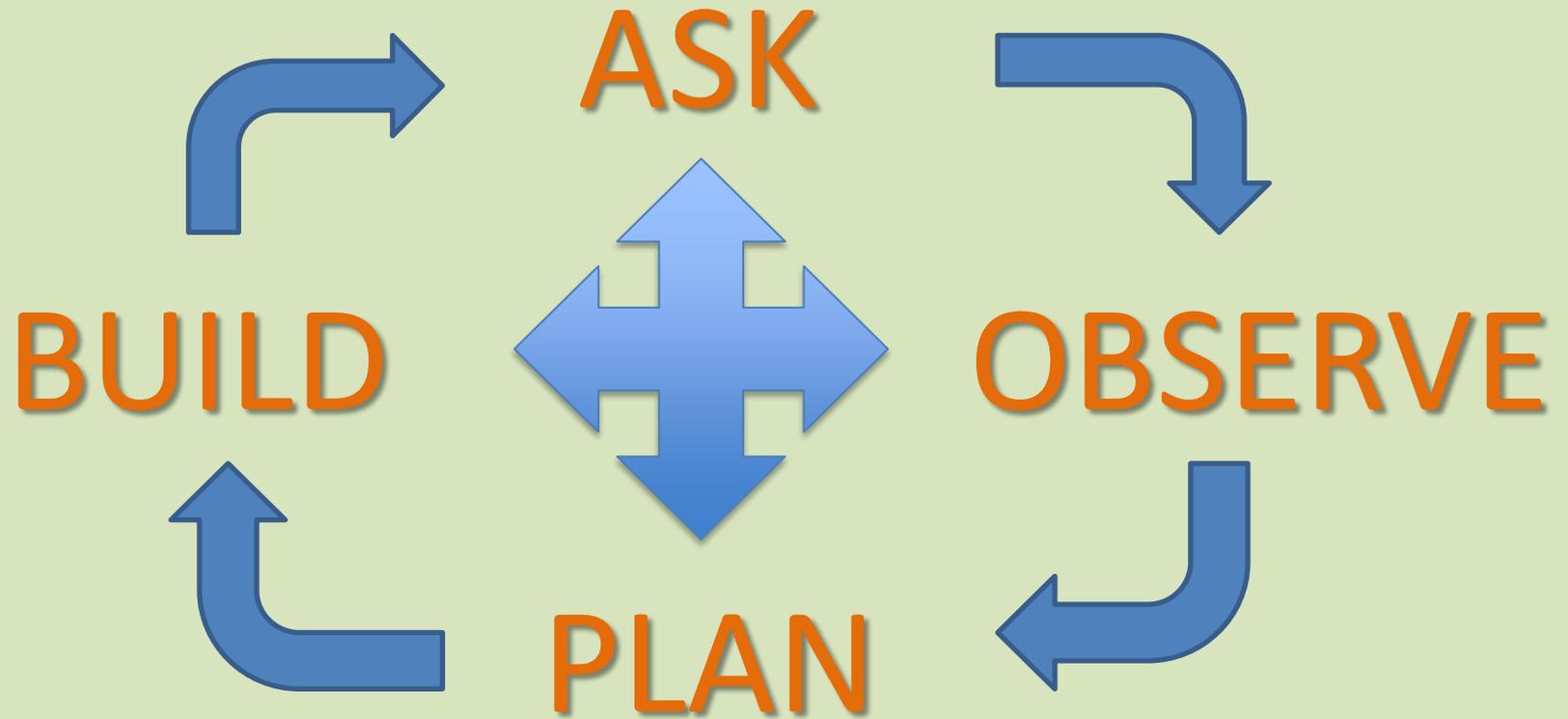


# Landscape Design with Native Plants

**Ask, Observe, Plan, Build / Install**

Lesley Alward presentation on February 2, 2022, at Yavapai College OLLI



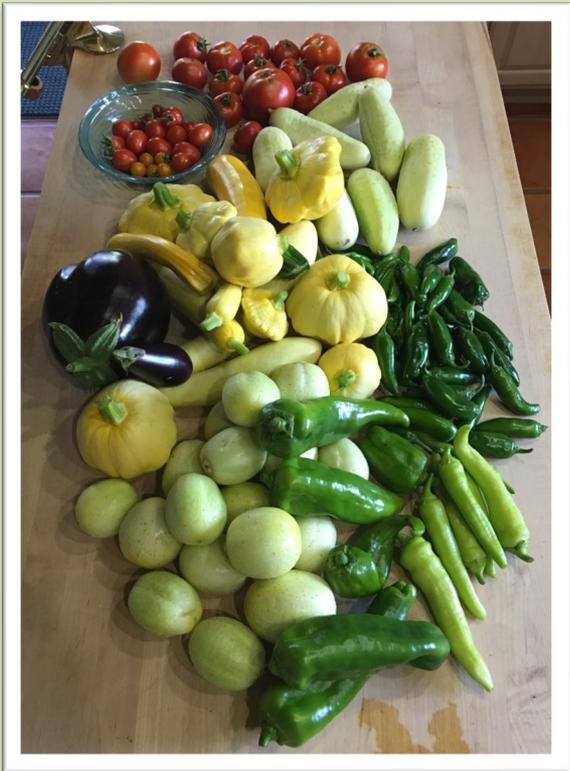


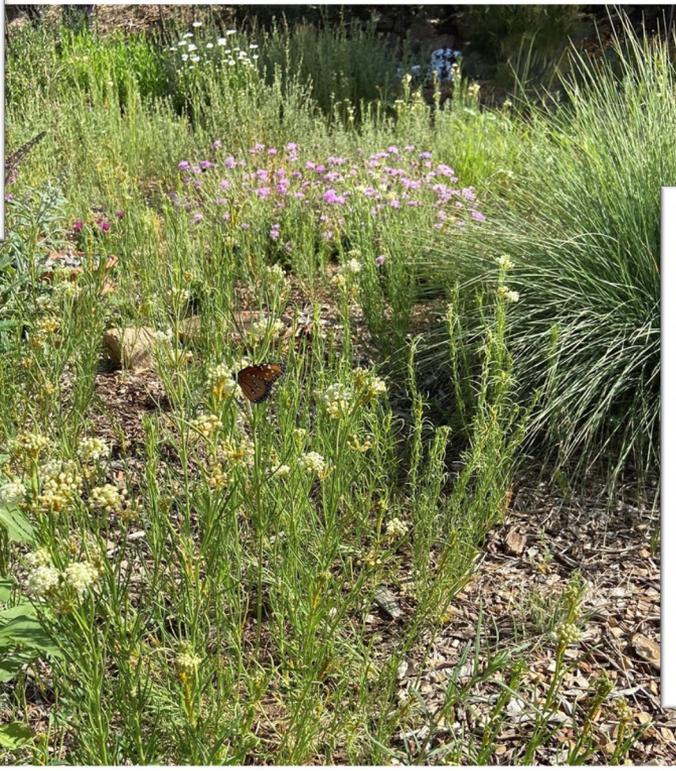
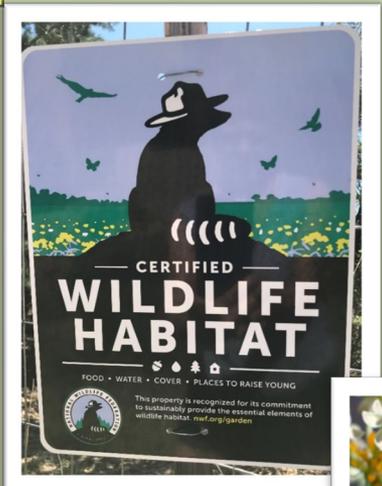


# WHY?

**What is your inspiration and motivation for your garden or garden spaces?**







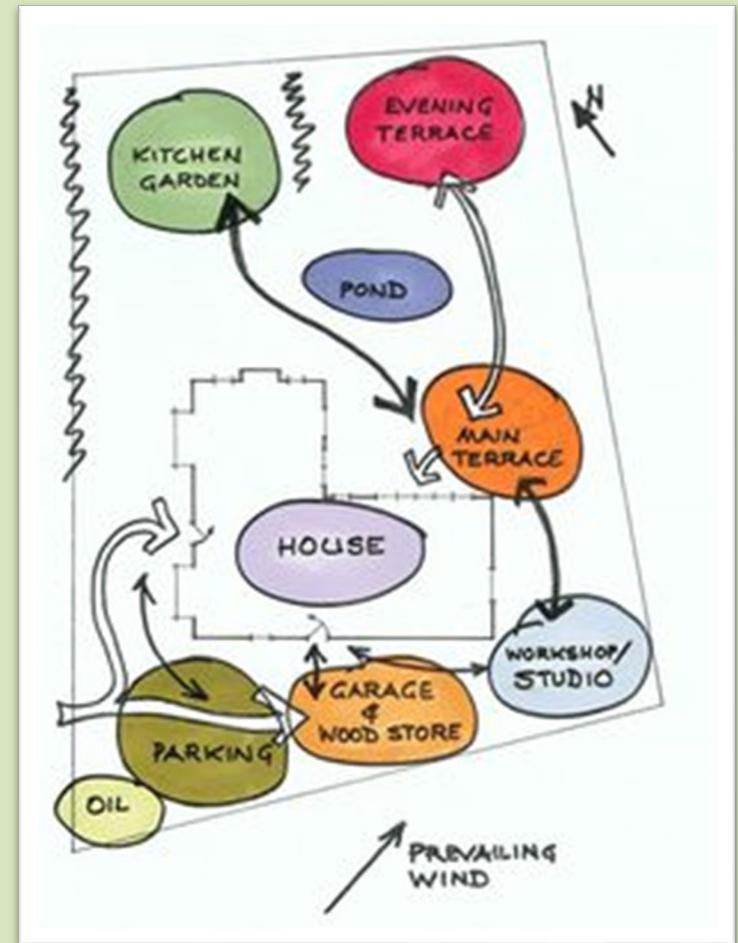
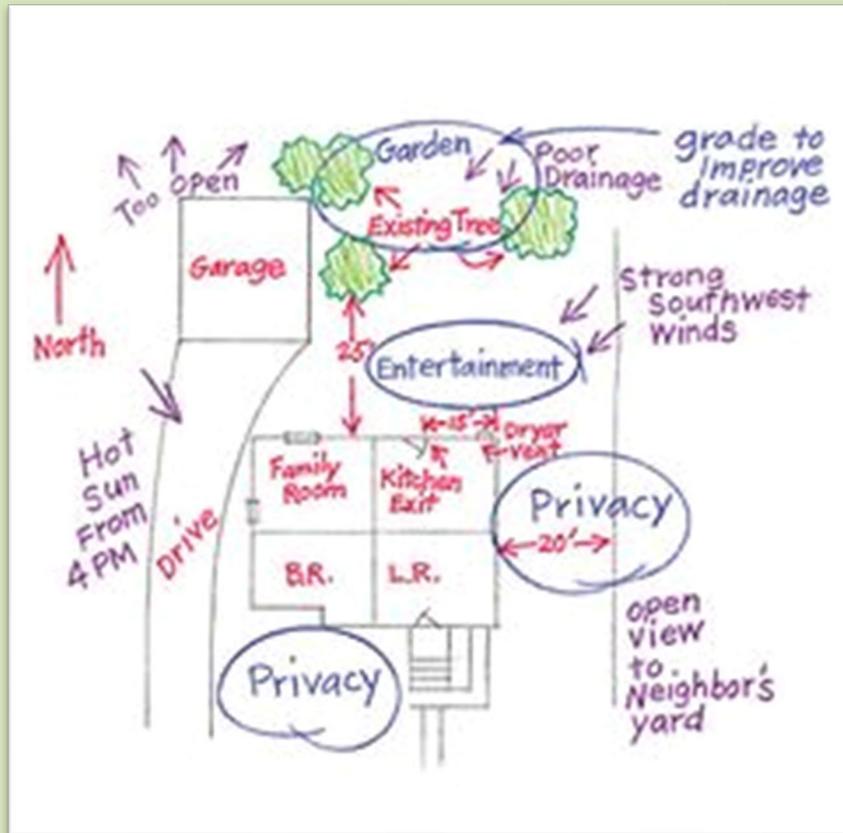


# OBSERVE: WHAT & WHERE?

- **Micro-Climate**
- **Topography**
- **Aspect**
- **Sun**
- **Shade**
- **Views**
- **Water**
- **Animals**



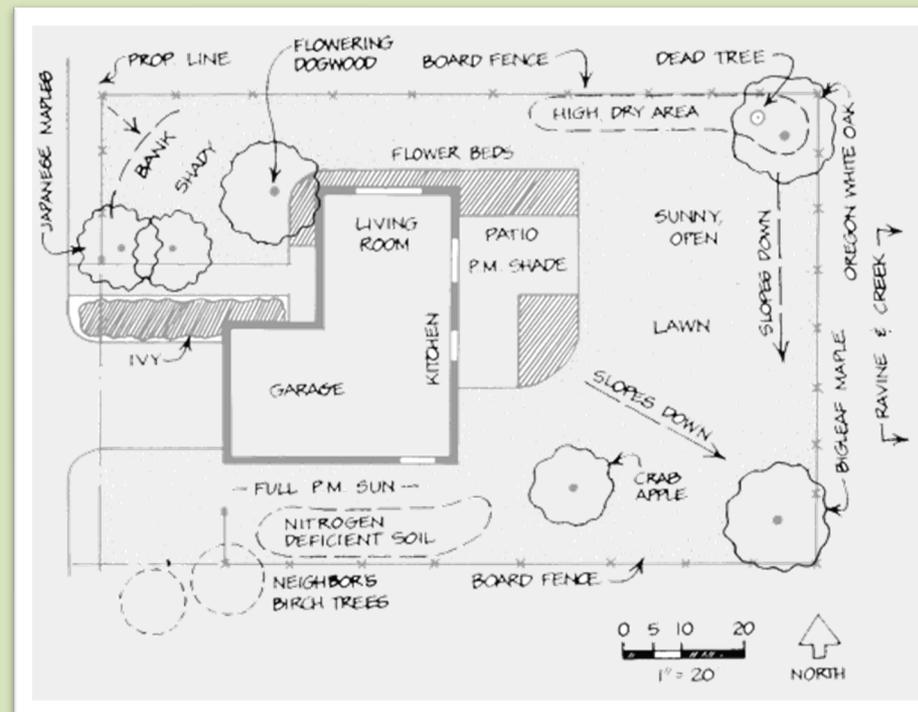
# BUBBLE DIAGRAMS to record observations



Conceptual representations: major elements, relationship of spaces, flow, relative space sizes



# EXISTING CONDITIONS IN PLAN VIEW





# YAVAPAI COUNTY GEOGRAPHIC INFORMATION SYSTEMS (Yavapai GIS)

<http://www.yavapai.us/gis/gis-mapping-applications>

➤ USE MEASUREMENT TOOLS

OR

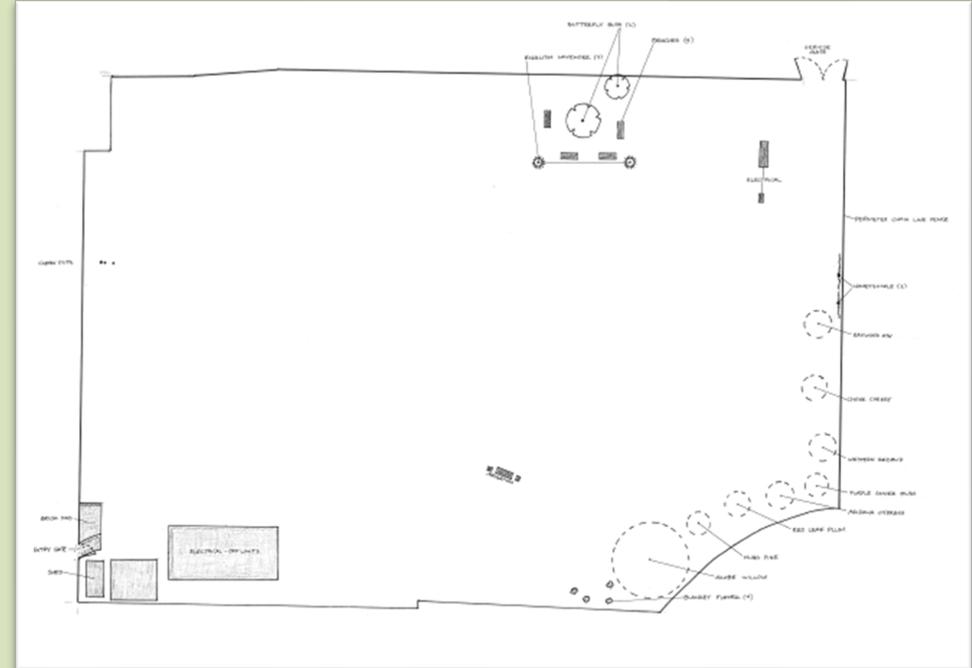
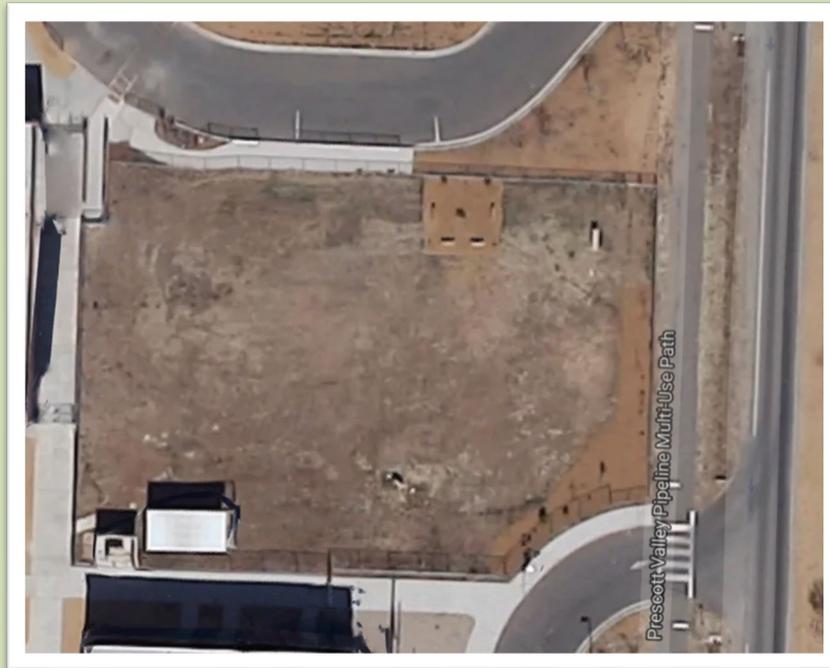
➤ GOOGLE MAPS, SATELITE VIEW



# LIBERTY TRADITIONAL SCHOOL HABITAT GARDEN

AERIAL FROM GOOGLE MAPS

PLAN VIEW WITH EXISTING ELEMENTS





# HOW...

...to make your **WHY, WHAT & WHERE** translate into a garden design?





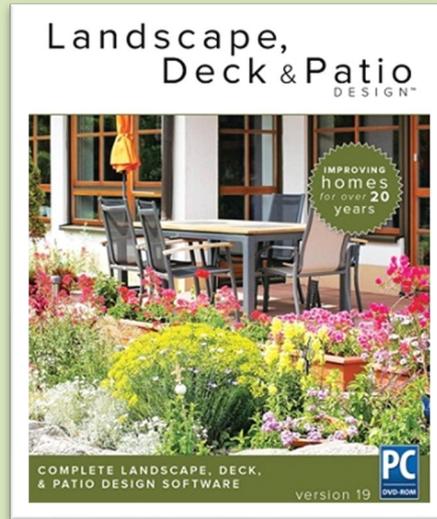
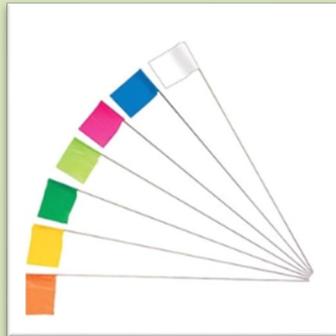
# LANDSCAPE ELEMENTS

## Hardscape

- Pathways
- Walls / Fences
- Patios / Decks
- Shade Structures
- Garden Art
- Hot Tub, Water Features
- Sheds
- Irrigation
- Lighting
- Seating

## Softscape

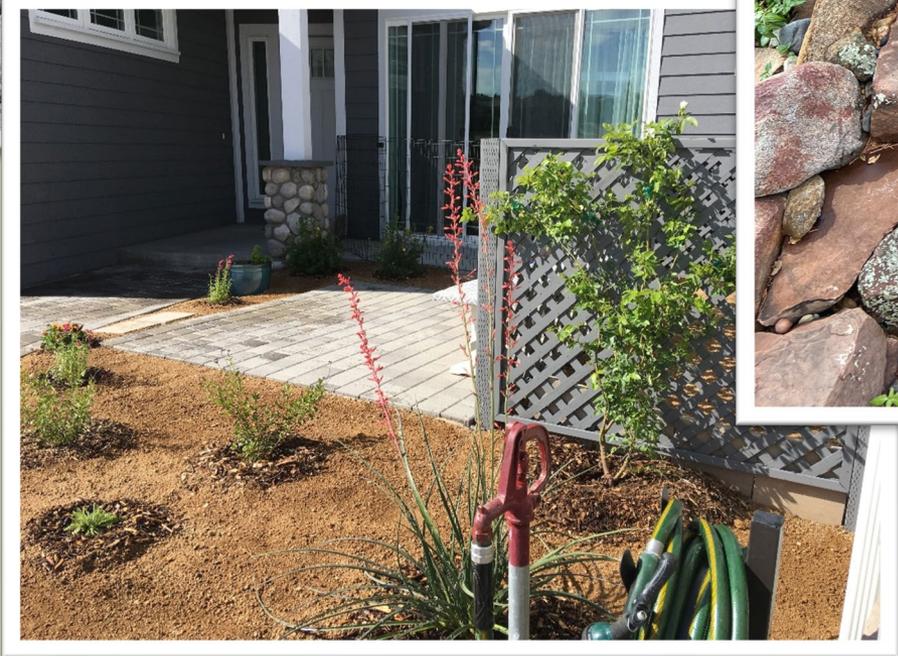
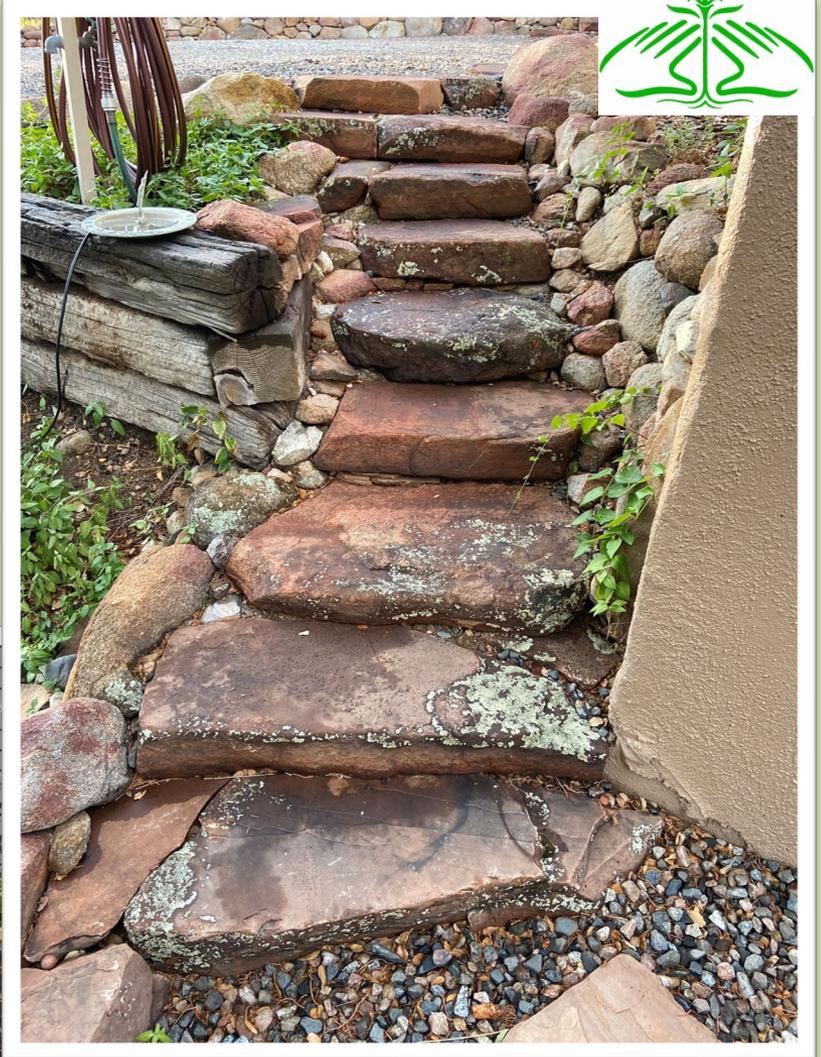
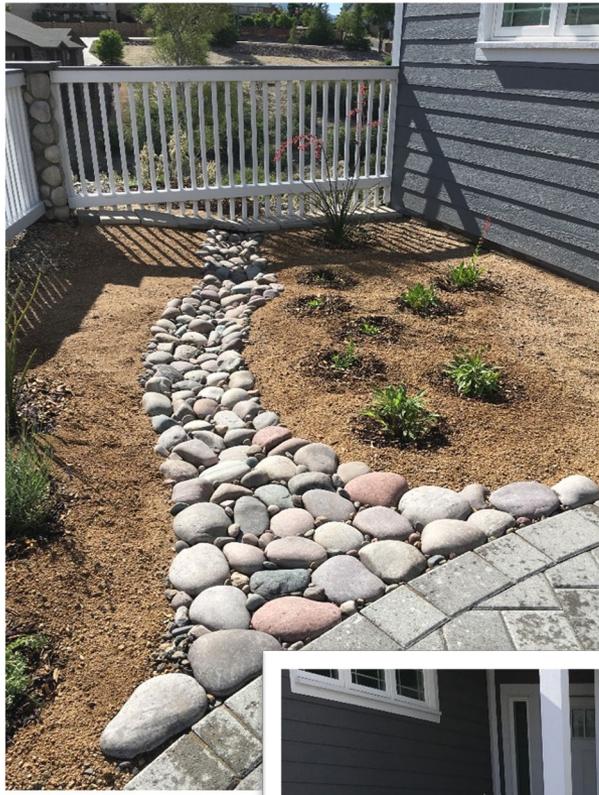
- Trees
- Shrubs
- Grasses
- Forbs
- Vines
- Annuals

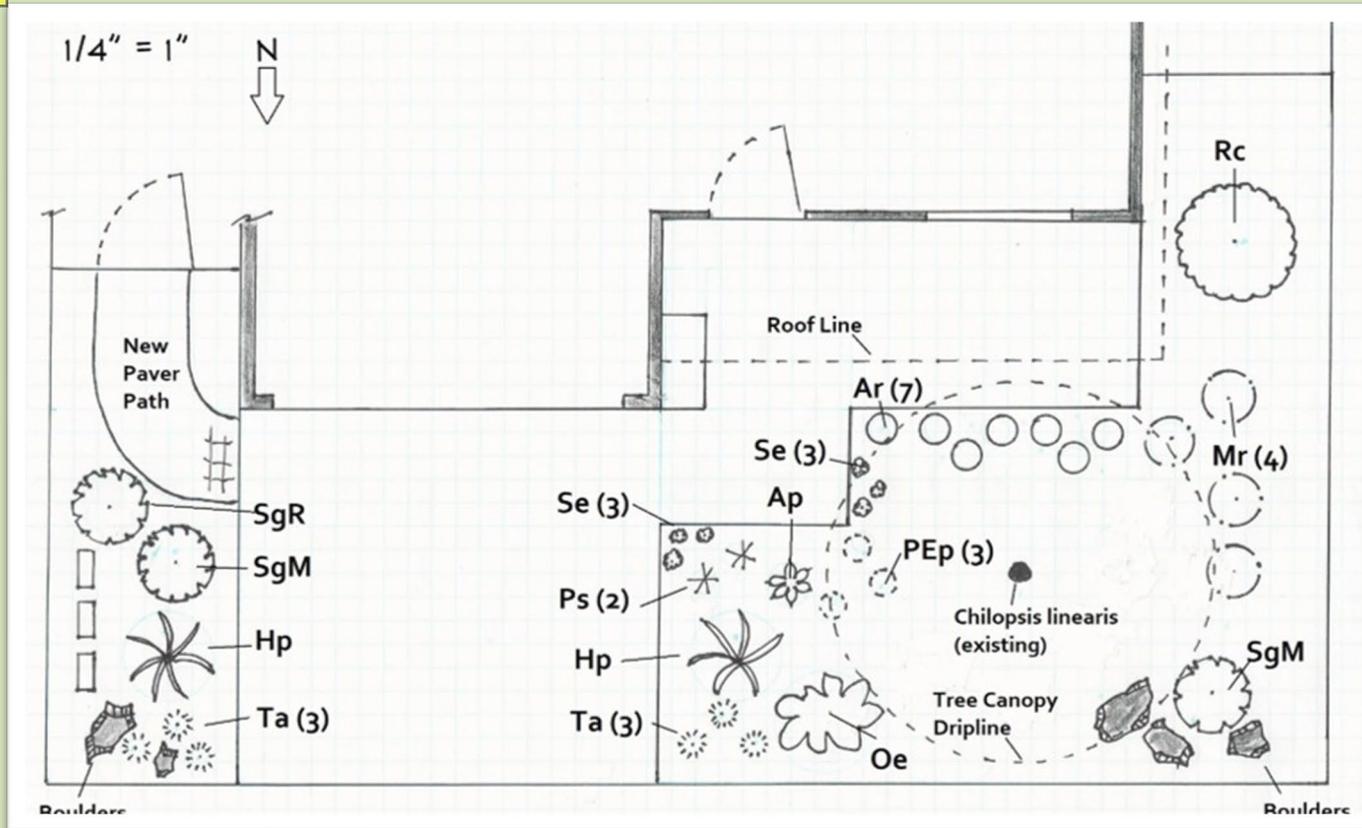




# WANTS IN LIST FORM

1. All plants native to Southwest and Arizona
2. All plants low-water once established
3. Plants attract birds by providing:
  - a. Seeds – native grasses
  - b. Berries – native shrubs
  - c. Nectar rich trees, shrubs, succulents, perennials & annuals
  - d. Protection – create canopy with varying heights
  - e. Water – at varying heights
4. Grassland feel with shrubs along property edges
5. Dry Stream bed in front yard from downspout drain to swale
6. Subtle grading of swales to direct downspout water to depressed basins around Desert Willows





PLANT LIST				
KEY	QTY	SIZE	LATIN NAME	COMMON NAME
<b>SHRUBS AND WOODY PERENNIALS</b>				
Mr	4	#1	<i>Mahonia repens</i>	Creeping Oregon Grape
Rc	1	#5	<i>Rhamnus californica</i>	California Buckthorn
SgR	1	#1	<i>Salvia greggii</i> Red	Red Autumn Sage
SgM	2	#1	<i>Salvia greggii</i> Magenta	Magenta Autumn Sage
<b>PERENNIALS</b>				
Ar	7	#1	<i>Ajuga reptans</i> 'Burgundy Glow'	Carpet Bugle
PEP	3	#1	<i>Penstemon barbatus</i> 'Elfin Pink'	Southwestern Beardtongue
Ps	2	#1	<i>Penstemon strictus</i>	Rocky Mtn Beardtongue
Ta	6	#1	<i>Tetranneuris acaulis</i>	Angelita Daisy
<b>SUCCULENTS</b>				
Ap	1	#5	<i>Agave Parryi</i>	Parry's Agave
Hp	2	#5	<i>Hesperaloe parviflora</i>	Red Yucca
Oe	1	#5	<i>Optunia engelmannii</i>	Engelmann's Prickly Pear
Se	6	#1	<i>Sempervivum</i>	Hens and Chicks





# WHEN?

**Plan the installation sequence of your garden according to:**

- **Budget**
- **Time**
- **Season**
- **Weather**
- **Workforce**





# INSTALLATION SEQUENCE

## 1. EARTHWORK

- a. Grading
- b. Drainage

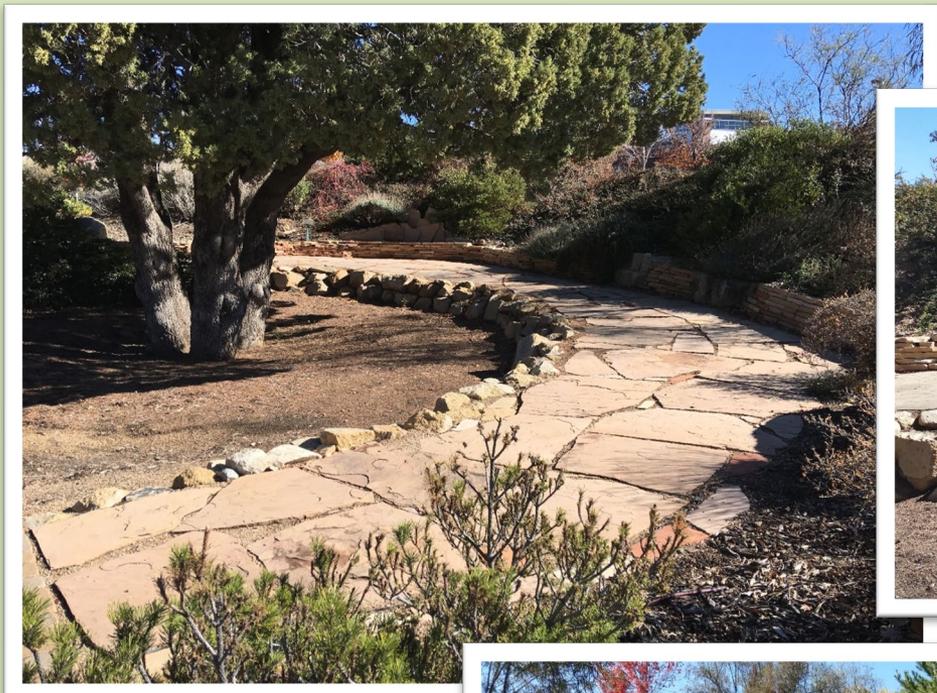




## **2. HARDSCAPE**

- a. All wood, metal, concrete, paving projects**
- b. Include sleeves under pathways for irrigation & lighting**
- c. Irrigation boxes & valves**
- d. Water for water features & main irrigation lines**
- e. High voltage electrical**







### **3. SOFTSCAPE**

- a. Trees**
- b. Shrubs**
- c. Vines**
- d. Forbs**
- e. Grasses**
- f. Annuals**



# GENERAL DESIGN CONCEPTS

## INFORMAL DESIGN

- ✓ Curving pathways & planting beds
- ✓ Variety of plant types & colors
- ✓ Low growing to “roundy moundy” to taller in background



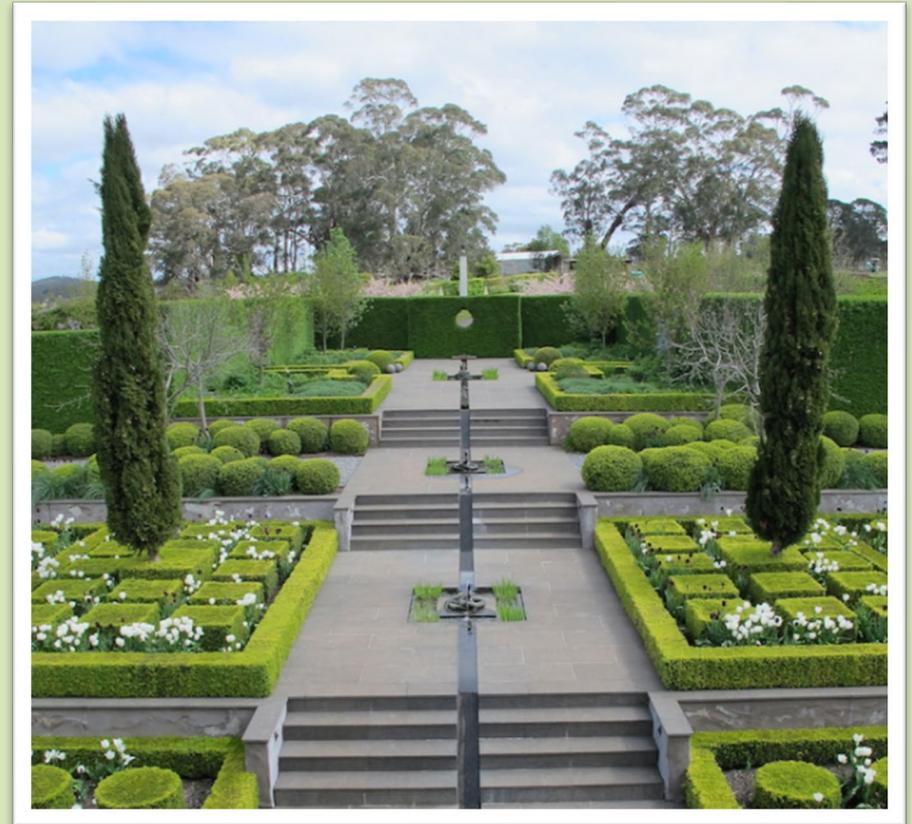


# FORMAL DESIGN

Utilizes balance & symmetry

May utilize:

- ✓ repetition of elements
- ✓ limited color palette
- ✓ linear, angular & circular elements





## **BEYOND PERSONAL STYLE...**

Consider foliage color, form and characteristics as well as flower color for greatest year round Interest.

Hardscape, trees and evergreen plants form the architectural elements which provide year round interest and encourage you to engage with your landscape.

# PLANTING GUIDELINES: CONTAINER TREES & SHRUBS

Ursula Schuch

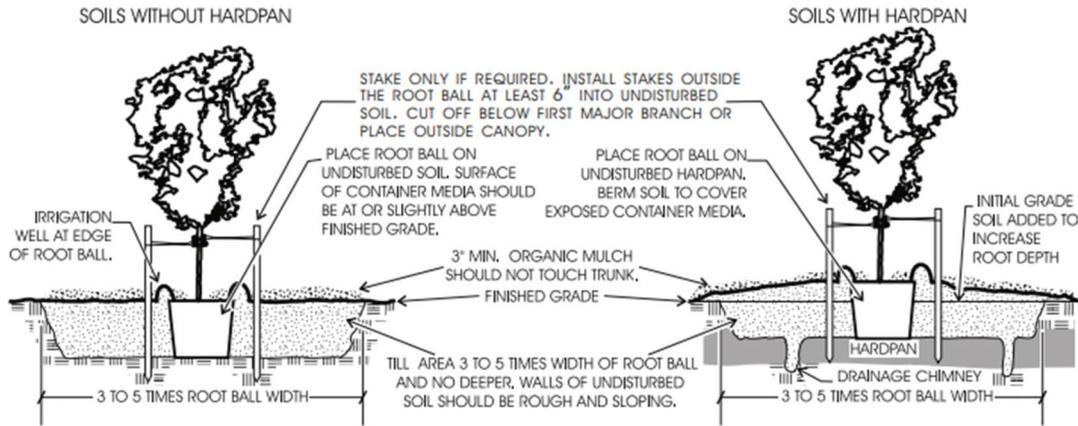


Figure 1. Planting and staking a tree in soil without a hardpan (left) and with a hardpan (right).





# ***NATIVE PLANTS***

Plants that occur naturally in a particular region, ecosystem, or habitat without direct or indirect human intervention.

***REGIONALLY ADAPTED  
NATURALIZED***





# WHY GO NATIVE?

1. ADAPTED TO OUR LOCAL CLIMATE
2. ADAPTED TO OUR NATIVE SOILS
3. **SUPPORT BIOLOGICAL DIVERSITY  
& PROVIDE HABITAT**
4. BEAUTIFUL & LOW MAINTENANCE





## Yavapai County Native & Naturalized Plants

Yavapai County Cooperative Extension



[Home](#) | [Plant Communities](#) | [Plant Lists](#) | [Search Forbs/Subshrubs](#) | [Search Grasses](#) | [Search Woody Plants](#) | [Additional Resources](#) | [About this Website](#)



Cacti



Grasses



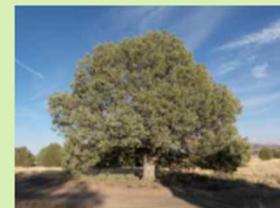
Forbs and Subshrubs



Shrubs



Agaves and Yuccas



Trees



Woody Vines



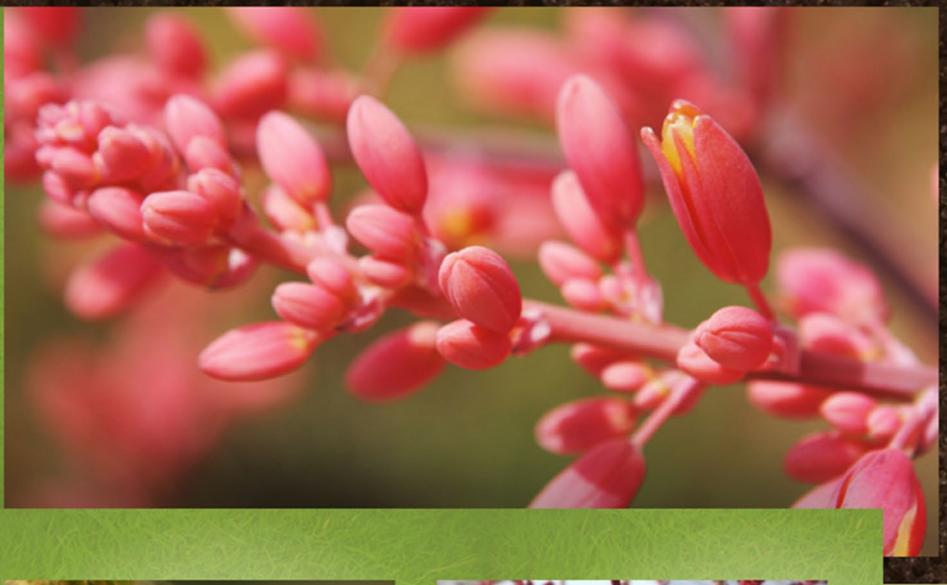
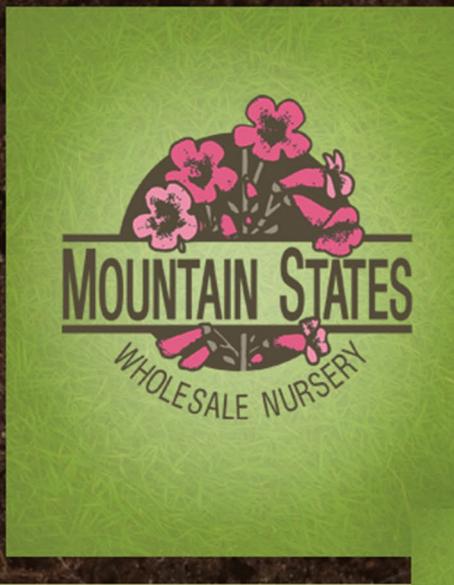
Noxious and Invasive Plants



Gardens Featuring Xeric Plants

Arizona Cooperative Extension  
Yavapai County  
840 Rodeo Dr #C  
Prescott, AZ 86305  
(928) 445-6590

Version 8.0  
<http://cals.arizona.edu/yavapaiplants/index.php>  
Last Updated: Nov 21, 2021  
[Content Questions/Comments: Email Mary Barnes](#)  
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### Plants & Availability

- [Plant Database](#)
- [Information Sheets](#)
- [Availability](#)
- [New Plants](#)
- [Catalog](#)
- [Cold Hardiness](#)

**▶ Contact Us**



*Hesperaloe parviflora* 'Perpa' Brakelights© PP# 21729

#### Search our Plant Database

Let us help you find the perfect plants from our catalog.

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#### New Plants & Collections

As Mountain States Wholesale Nursery celebrates over 48 years, we extend our gratitude to all of our customers and friends who have supported and encouraged us through the years. There are many ways to measure progress, and to us the most meaningful sign is the presence of previously unused desert plants in thoughtful landscapes throughout the Southwest. These landscapes range from large-





## BOUTELOUA GRACILIS 'BLONDE AMBITION' PP22048



Selected by renowned plantsman David Salmon of High Country Gardens in Santa Fe, this showy selection of blue grama grass has huge chartreuse flowers that dance above the foliage. They mature into long-lasting blonde seedheads that add interest all year. This selection of blue grama is larger than the species, growing to 30-36 inches tall. The narrow green leaves dry to a tan color in the winter months. This warm-season, clumping grass is extremely cold hardy and durable. Plant in full sun, but provide ample summer irrigation in the low deserts to maintain a lush green look. It will benefit from a good hard pruning or mowing in the early spring to remove dormant winter foliage and spent flower spikes. USDA Zone 4.

AT A GLANCE SUMMARY	
SIZE (H X W)	2.5-3 feet x 2.5-3 feet
FLOWER COLOR	Green to purple
FLOWER SEASON	Spring - Summer
EXPOSURE	Full sun
WATER	Low
GROWTH RATE	Fast
HARDINESS	-20° F, USDA Zone 4
PRUNING	Cut back in spring



GRASS



We Love Lavender Sale! Save Up To 15% Through 2/7

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Zone Lookup

Enter your Zip Code:

[Look Up Zone](#)



Licorice Mint Hyssop (Agastache)

Shopping Options

Zones ^

Select Option ... v

Light Requirements ^

Full Sun 23 items

Morning Sun & Afternoon Shade 1 item

Planting Time ^

Spring / Summer 23 items

Fall 21 items

Flower Color ^

12 inches 1 item

18 inches 6 items

24 inches 3 items

30 inches 2 items

[Show \(3\) more](#) v

Agastache | Hummingbird Mint

Agastache, also called Hummingbird Mint, or Hyssop, are showy, fragrant, long-blooming perennials. As their name suggests, they're highly attractive to hummingbirds. Agastache are essential for a pollinator-friendly garden, and have excellent resistance to browsing deer and rabbits thanks to the minty fragrance of its foliage. Explore our extensive selection of garden-tested Agastache, including unique introductions & exclusive varieties from Chief Horticulturist David Salman. Learn More: [All About Agastache and Agastache Introductions](#).



To choose the best plants for your garden, use our filters at left.

Sort By [Most Popular Products](#) v ↑ View as: 23 Show [24](#) v

 <a href="#">Kudos™ Gold Hummingbird Mint</a> <small>SHIPS IN SPRING</small>	 <a href="#">Desert Solstice Hummingbird Mint</a> <small>SHIPS IN SPRING</small>	 <a href="#">Texas Hummingbird Mint (Hyssop)</a> <small>SHIPS IN SPRING</small>	 <a href="#">Desert Sunrise Hummingbird Mint</a> <small>SHIPS IN SPRING</small>
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## Ava Agastache PRONUNCIATION



### Video



4.5 76 Reviews [Write a Review](#)

Click an image to see it above:

Like 12

Save

Agastache Ava is one of High Country Gardens very best plant introductions, renowned for its tall spikes of deep rose-pink flowers held by raspberry-red calyxes. This vigorous hybrid Hummingbird Mint blooms for many months beginning in mid-summer. **2005 Plant of the Year.**

Zones 5 - 10

#### Advantages

- Attract Butterflies
- Attract Hummingbirds
- Bee Friendly
- Deer Resistant
- Rabbit Resistant
- ✓ Native
- ✓ Fragrant Flower / Foliage
- ✓ Good For Dried Flowers
- ✓ Good For Containers
- ✓ Extended Bloom Time (more than 4 weeks)

#### Light Requirements

Full Sun

Water Tolerance Low-Water

Mature Height 48-60" tall

Mature Spread 24" wide

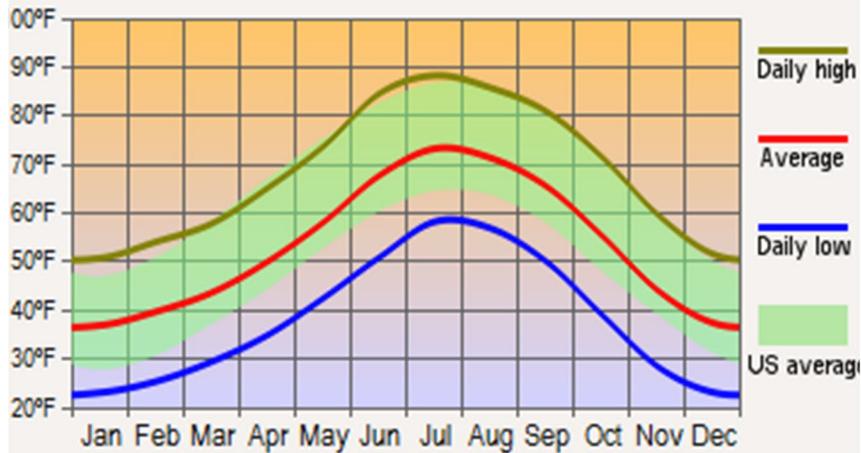
Bloom Time Mid summer to fall

Shipping Details Shipping begins the week of February 21st, 2022

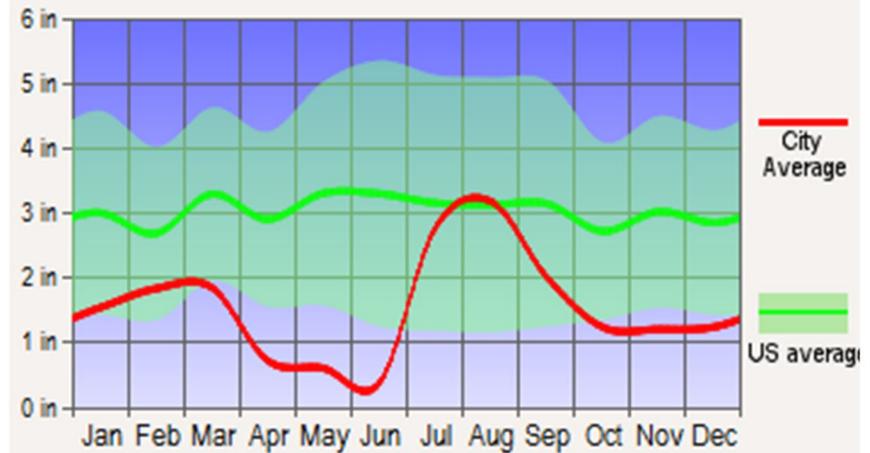


# PRESCOTT CLIMATE DATA

## Average Temperatures

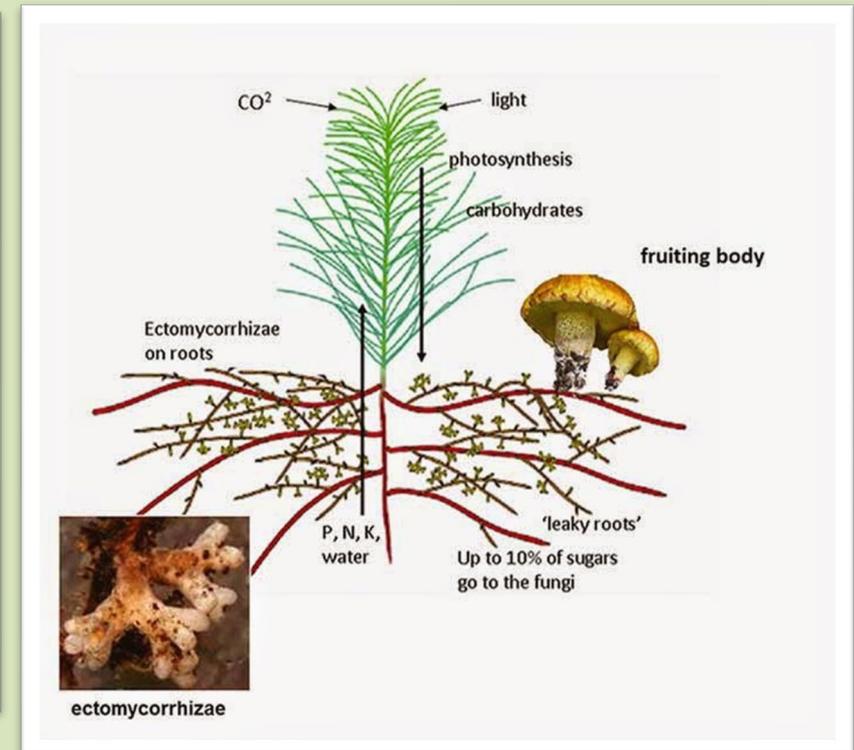
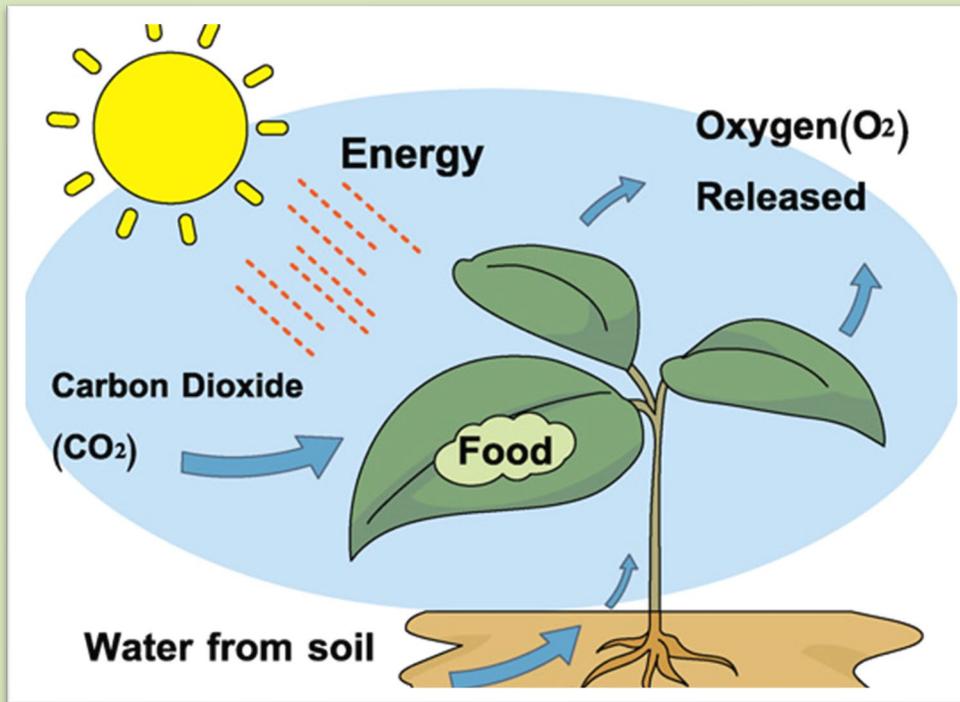


## Precipitation





- ❑ Photosynthesis and help from above the soil
- ❑ Native plants have **symbiotic relationships** with mycorrhizal fungi & bacteria that allow them to acquire needed nutrients & phosphorous from the soil without using fertilizers or **amendments**



# ABOUT OUR SOILS...



## Nutrient Availability Chart

		Soil pH										
		4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
Nutrients	Nitrogen	NA	SA	MA	MA	HA	HA	HA	HA	MA	MA	SA
	Phosphorus	NA	NA	SA	MA	HA	HA	HA	MA	MA	SA	MA
	Potassium	NA	SA	MA	MA	HA	HA	HA	HA	MA	MA	MA
	Sulfur	NA	SA	MA	MA	HA	HA	HA	HA	MA	MA	MA
	Calcium	NA	NA	SA	MA	MA	MA	HA	HA	HA	HA	MA
	Magnesium	NA	SA	SA	HA	HA	HA	HA	HA	MA	MA	MA
	Iron	HA	HA	HA	HA	HA	MA	MA	SA	SA	SA	SA
	Manganese	HA	HA	HA	HA	HA	MA	MA	SA	SA	SA	SA
	Boron	MA	MA	HA	HA	HA	HA	HA	MA	SA	SA	MA
	Copper	NA	SA	MA	HA	HA	HA	HA	MA	SA	SA	SA
	Zinc	HA	HA	HA	HA	HA	MA	MA	SA	SA	SA	SA
	Molybdenum	NA	NA	SA	SA	MA	MA	HA	HA	HA	HA	HA

Acidic
-----Optimum pH Zone for Soil-----
Basic

Key:

NA = Not Available

SA = Slightly Available

MA = Moderately Available

HA = Highly Available



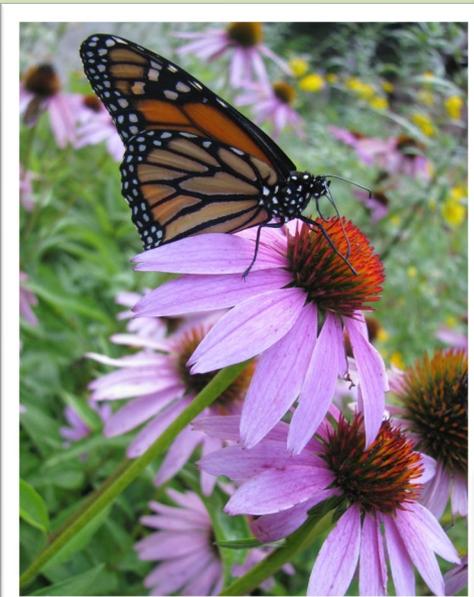
# SUPPORT BIOLOGICAL DIVERSITY & PROVIDE HABITAT

- ❑ Food source for young & mature species
- ❑ Shelter from predators & the elements
- ❑ Places to nest & raise young





# FOOD



POLLEN RICH



NECTAR RICH

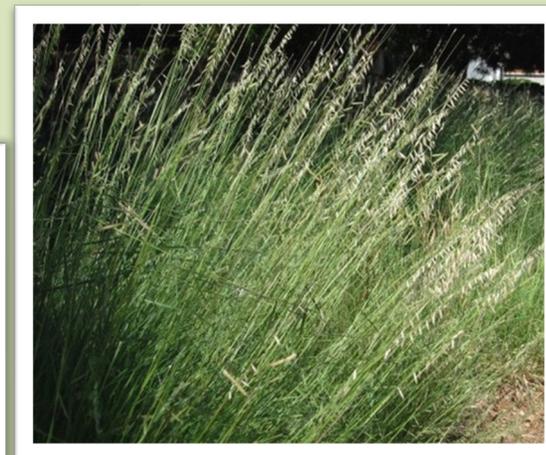


BERRIES



# FOR ADULTS & LARVAE

SEED RICH



FOR LARVAE



# SHELTER



FROM ELEMENTS  
FROM PREDATORS  
NESTING MATERIALS  
GARDEN CANOPY  
BRUSH PILES & LEAF LITTER

## PLACES TO RAISE YOUNG





# NATURAL CANOPY





# TREES



Desert Willow  
*Chilopsis linearis*





Redbud  
*Cercis Canadensis texensis*  
'Oklahoma'



# FOR BEAUTY & BUTTERFLY LARVAE



*Bouteloua gracilis*  
Blue Grama



*Bouteloua curtipendula*  
Sideoats Grama



*Cirsium arizonicum*  
Arizona Thistle



*Lupinus arizonicus*  
Arizona Lupine



# HUMMER MAGNETS



Agastache cana  
Common Name?



Rocky Mtn Penstemon  
Penstemon Strictus



Mid to late spring



Late  
Spring



Penstemon pseudospectabilis  
Desert Penstemon





Heuchera / Coral Bells



Aquilegia chrysantha  
Golden spur columbine



Ratibida columnifera  
Prairie Coneflower





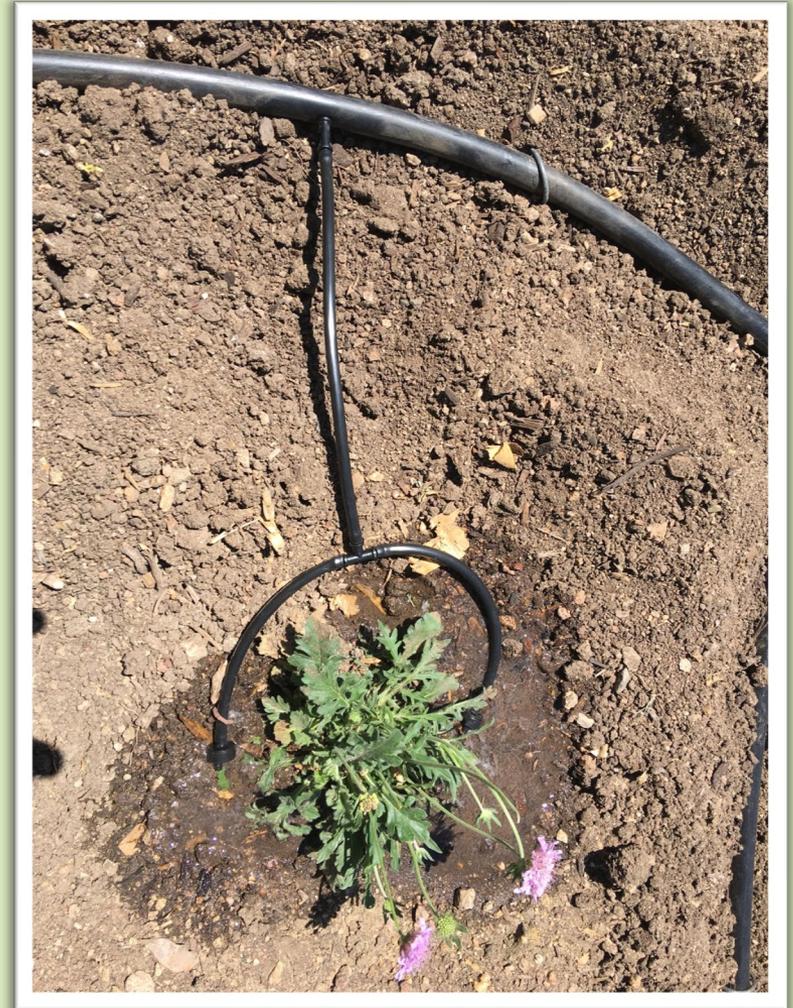


## **Landscape Hardscape Elements Installed After Plant Installation:**

- Drip irrigation
- Low voltage or solar lighting
- Stepping Stones
- Unsecured seating
- Mulch



# DRIP IRRIGATION



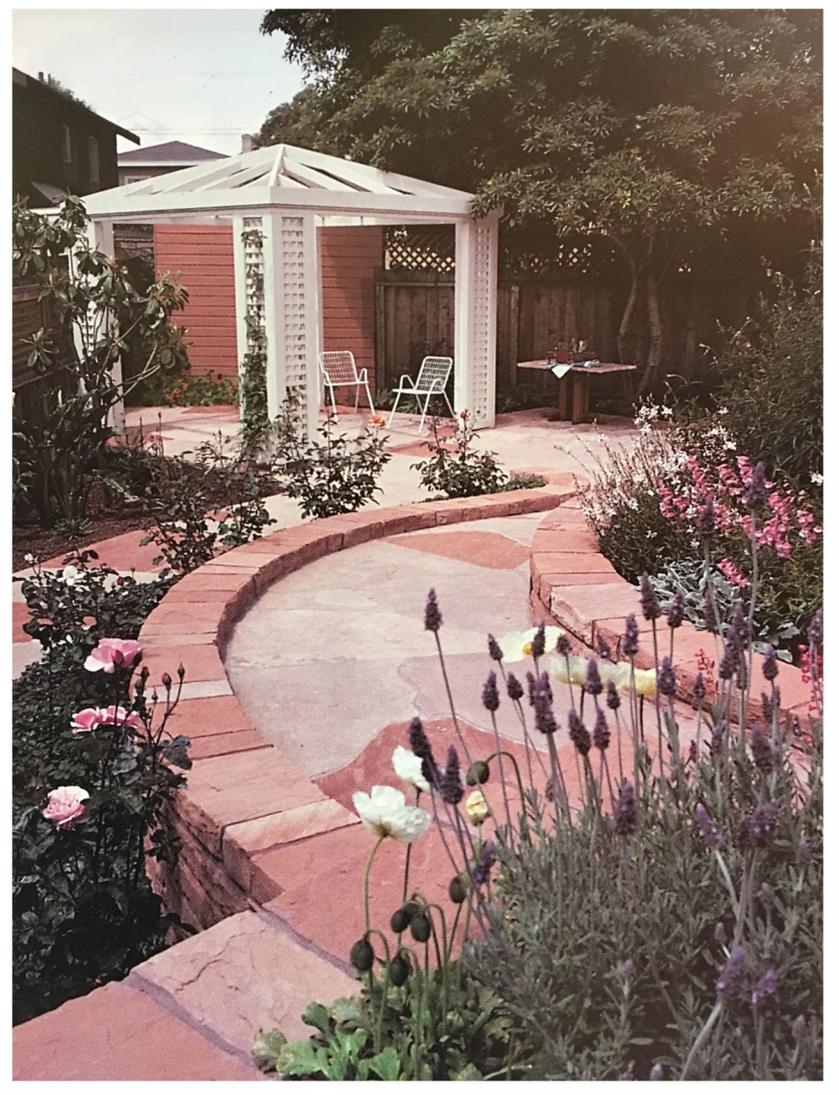
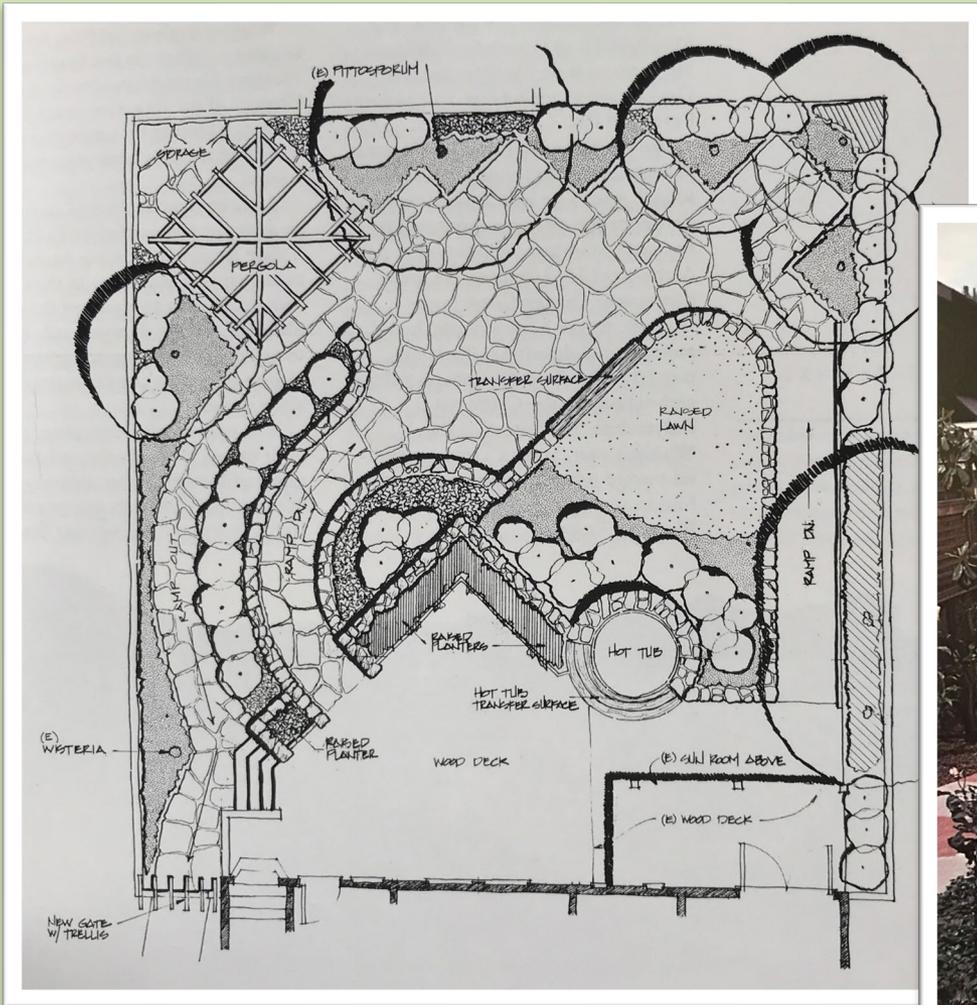


# WHO?

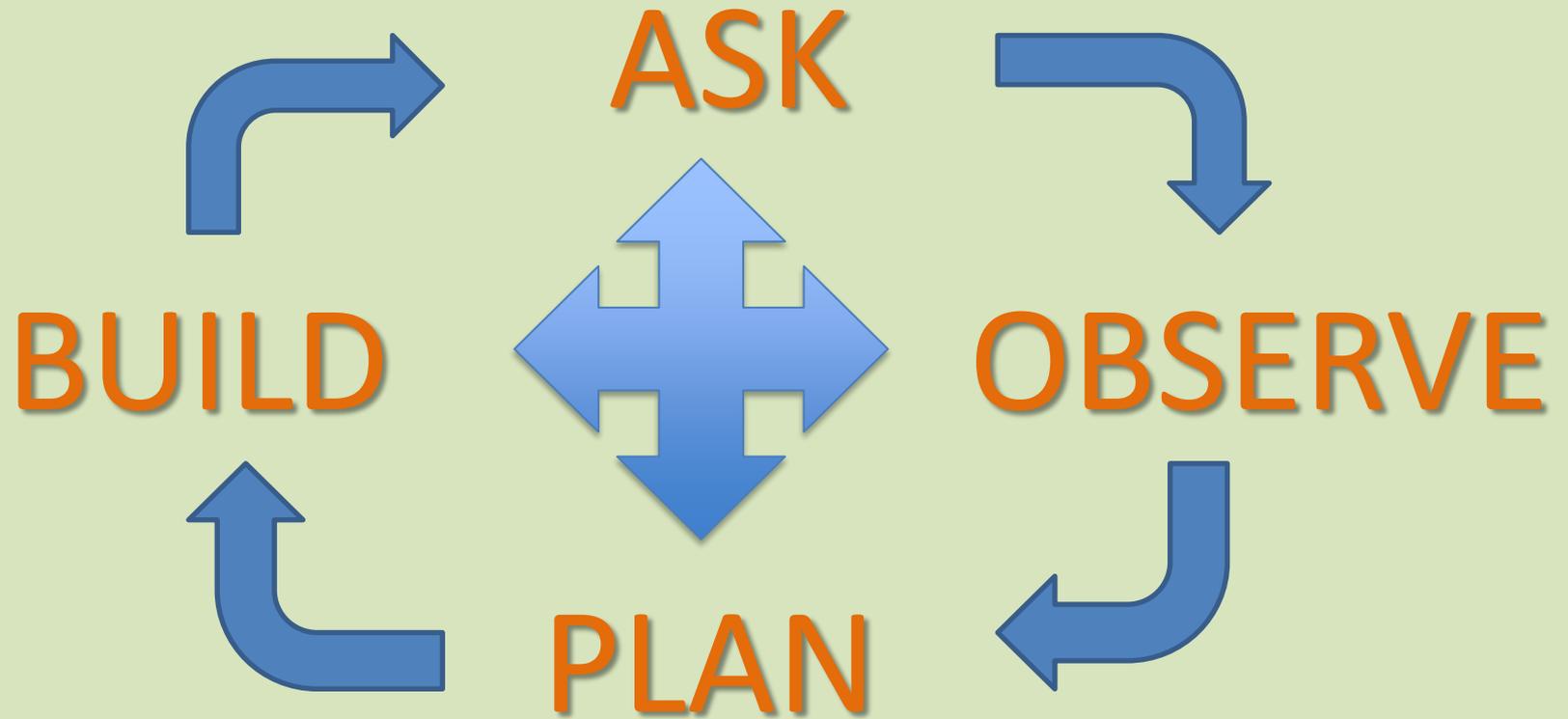
- ✓ You?
- ✓ Family? Friends?
- ✓ Landscape contractors?
- ✓ Hired help?
- ✓ All of the above?

*Have a plan for each possibility so that Your Dream Garden is actually expressed through the work done!*











# THANK YOU!

## Questions?

University of Arizona Cooperative Extension  
<https://extension.arizona.edu>





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visit our website at  
[extension.arizona.edu/yavapai](https://extension.arizona.edu/yavapai)

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