

MBA Collection of Plant of the Month

- Past presentations are on Resources page
 - https://metrobeekeepers.net/this-month-in-the-hive-inspection-checklist/
- "Plant of the Month Collection"
- Melinda has done a wonderful job!

| Month | Plant(s) | Speaker |
|----------|--------------------------------------|---------|
| Aug 2022 | Crinum Lily | Melinda |
| Oct 2022 | Marigold, Scarlet Sage/Salvia | Melinda |
| Jan 2023 | Winter Jasmine | Melinda |
| Feb 2023 | Daffodil, Candytuft | Melinda |
| Mar 2023 | Texas Kidneywood (Rock or Bee Brush) | Cindi |
| Apr 2023 | Black Foot Daisy, White Autumn Sage | Melinda |
| May 2023 | Indian Blanket, Engelmann Daisy | Melinda |
| Jun 2023 | Lantana, Texas Lilac | Melinda |
| Aug 2023 | Globe Amaranth, Butterfly weed | Melinda |
| Oct 2023 | Joe Pye Weed, Aster | Melinda |
| Mar 2024 | Nasturtium, Mexican Mint Marigold | Melinda |
| Apr 2024 | Snap Dragon, Iris | Melinda |
| May 2024 | Gregg's Salvia | Russ |
| | | |



Floral Adventures

(And Other Exploits)

From The
Foragers Of
'Bee'opatra
And
'Bee'fertiti

August 2022 Melinda Wahl



Crinums have thrived hundreds of years at abandoned home sites

CRINUM LILY

- •Classic southern sun perennial, flowers late June early August
- •Giant clumps of bold, tropical, lilylike foliage make an imposing architectural statement in the garden
- •Pink-to-white trumpet-like flowers ...usually fragrant...member of Amaryllis family

Think of crinum lilies as a horticultural IRA for your grandkids to



WHERE DO THEY GROW

- Extremely adaptable...dry or boggy soils
- Divide and in fall or spring, plant tubular bulbs just under the soil
- •Blooms best with water and full or partial sun.
- May go dormant in winter –
 just cut them back and
 don't worry if the stems
 become soggy

- The entire plant is toxic, but especially the bulb.
- •Crinum lily contains a variety of alkaloids which the human body cannot tolerate.
- Thankfully, most of the toxicity is caused by eating the plant.
- •Wear gloves to avoid getting plant juices on your skin, as you may experience swelling or other problems.
- The entire genus can be deadly to cats, while symptoms range from mild to moderate for dogs and humans.

20XX



60,000 Bees Helped Create This Nefertiti Statue

- Tomás Libertíny Slovakian artist currently in the Netherlands
- All-natural creation made by bees, with a little structural guidance
 - Designed and built a 3D frame of a Nefertiti bust
 - Employed some bees to start building a honeycomb around it



It took 2 years to complete

- Set up in early 2019 as a live installation - visitors could see it being built by bees in real time
- Finished at the end of 2020
- Shown in the Rademakers
 Gallery in Amsterdam



Floral Adventures

(And Other Exploits)

From The
Foragers Of
'Bee'opatra
And
'Bee'fertiti

October 2022 Melinda Wahl



MARIGOLDS

 Marigolds – grown from seed – straight in the ground in July

SCARLET SAGE/SALVIA

 Scarlet sage/salvia – nursery plant just transplanted in late September





- Remove existing grass & till (if repetitive, reduces weeds)
- 2. Late Oct Soak seeds warm water 6 hrs and scatter
- 3. Nov / Dec / Jan Keep moist consider 1 inch water per wk

PREPARING A MEADOW

- Site characteristics
 - 6 hours direct sun
 - uncompacted well drained soil (no need to fertilize but consider expanded shale for drainage)
 - square or rectangle –
 at least 3 ft x 2 ft or larger –
 mine is 18 ft x 20 ft

Expert Tip: Cutting weeds with scissors is best practice – snip stems at soil surface each week

CHOOSING A SEED MIX

I am going to try a mix of spring, summer, fall blooms: Texas Bluebonnet, Indian Blanket, Cutleaf Daisy, Gayfeather, GoldenWave, Lanceleaf Coreopsis, Lemon Mint, Standing Cypress

Next year, hopefully, I will NOT be tilling, as some of these are perennials – others come back from seed.

My seed source – Native American Seed

<u>www.seedsource.com</u> – 325 446 3600

Guidance on how much Expert Tip:

seed type /size of meadow Ask about scarified seeds

20XX 11



TELLING THE BEES

According to tradition or myth

To prevent bad luck, a crucial part of keeping bees is to inform them of all deaths, weddings, births that happen on the estate or area immediately surrounding their bee hives



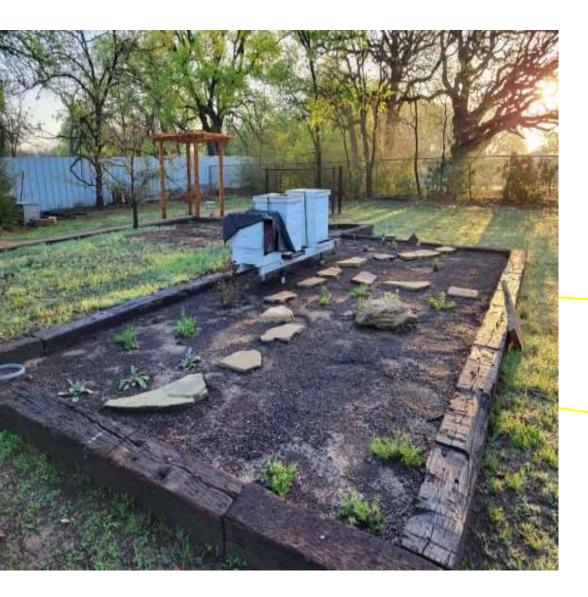
Royal beehives of Buckingham Palace and Clarence House

Royal Beekeeper, John Chapple, called into service after Queen Elizabeth II's

passing.

Black ribbons around hives.





Floral Adventures

(And Other Exploits)

From The
Foragers Of
'Bee'opatra
And
'Bee'fertiti

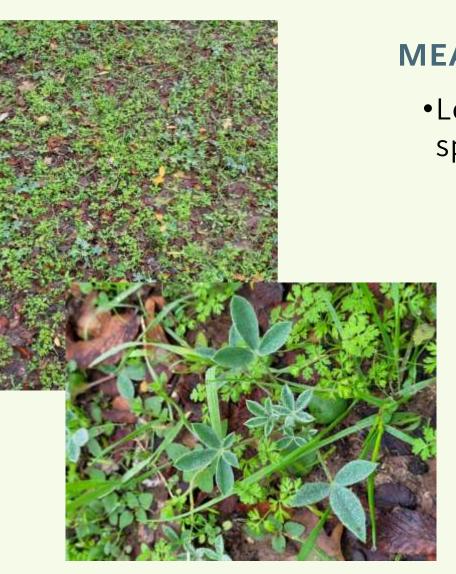
January 2023 Melinda Wahl



WINTER JASMINE

slender, deciduous viney shrub -

- bright yellow blooms in January / February
- drought / freeze tolerant
- full sun / part shade
- any soil conditions



MEADOW IN JANUARY

 Lots of new growth - numerous sprouts identified

•Blue Bonnet sprouts – light green w/ 5 pointed leaves

Cutleaf Daisies – long leaves
 with jagged edges – no flowers

first year



GARDEN CHORES FOR JANUARY

- Maintain garden tools
- Plan your garden year
- Start early spring vegetable seeds indoors carrots, radishes, beets, cabbage, swiss chard, lettuce, onions, parsley, peas
- Order potatoes for planting in March
- And remember always water before a freeze!

20XX 17



Venison, Honey and the Wild West

Cowboys ate jerky because it could be stored for extended periods – but it was often tough, hard, and difficult to eat.

Honey was sometimes used to soften the jerky, making it easier to eat, as well as providing a tasty alternative.



Floral Adventures

(And Other Exploits)

From The
Foragers Of

"Bee'opatra
And (the late)

"Bee'fertiti

February 2023 Melinda Wahl



DAFFODILS

Perennial bulbs – aka Narcissus–

- Yellow/white/orange
- Full sun / part shade
- Moist soil

CANDYTUFT

Perennial evergreen

- Full sun
- Drought tolerant needs water to be established

MEADOW IN FEBRUARY



Not a lot has visibly changed since last month – but lots of underground growth of roots

GARDEN CHORES FOR FEBRUARY



Nature's Creation

- Amend soil as needed with lava/sand etc. for our hard clay; beneficial micro-organisms; cow manure
- Raised bed preparation layers of cardboard or garden fabric topped with at least 18 inches of garden soil and compost
- Treat for fire ants (Tempo 1% Dust)
- Continue planning your garden year

20XX 22

Bee My Valentine!

Saint Valentine-Patron Saint Of Beekeepers And Lovers



Legend - Roman Emperor in the 3rd Century banned marriages – single men = better warriors

Valentine secretly performed marriages - and so he came to be known as defender of love....

St. Valentine was also a beekeeper –

Beekeepers came to symbolize love and the protection of marriage and family.

Plant of the Month-March

Texas Kidneywood, AKA Rock Brush, AKA Bee Brush









Texas Kidneywood, AKA Rock Brush, AKA Bee Brush

Eysenhardtia texana

Family: Fabaceae (Leguminosae-Pea)

- Open, airy medium to large shrub (10 feet High x 8 feet Wide)
- Attractive when pruned into a small tree
- Native to Texas-grows wild in rocky limestone soils from the Rio Grande Plains to the Edwards Plateau and Trans-Pecos.
- Family: Same as Acacias (Huisache) and Mimosas, but without thorns
- Deciduous-sheds its leaves annually
- Exposure: full sun/partial sun
- Heat Tolerance: very high
- Water Requirements: very drought tolerant once established
- Soil Requirements: neutral/alkaline
- USDA Hardiness Zone: 8

Source: https://aggie-

hort. tamu. edu/ornamentals/nativeshrubs/eysen hard tiatexan. htm



Texas Kidneywood, AKA Rock Brush, AKA Bee Brush

Eysenhardtia texana

Family: Fabaceae (Leguminosae-Pea)

- Blooming Period: Spring/Summer/Fall (all the way into September)
- Spikes of fragrant white flowers and lacy compound leaves (have a tangerine scent when crushed)
- Flower Color: white

https://aggie-hort.tamu.edu/ornamentals/nativeshrubs/eysenhardtiatexan.htm



Texas Kidneywood, AKA Rock Brush, AKA Bee Brush

Eysenhardtia texana

Family: Fabaceae (Leguminosae-Pea)

Attractive to bees, butterflies and deer

https://aggie-hort.tamu.edu/ornamentals/nativeshrubs/eysenhardtiatexan.htm







Kidneywood-Human Medicinal Uses

- Mexican species Eysenhardtia polystachya used medicinally for centuries and was well known to the indigenous peoples of Mexico and parts of Central America
- The Spaniards were the first Europeans to take this plant to their homeland where it quickly became very popular for the treatment of various urinary tract diseases (Martínez, 1989).
- In Mexico, the wood is either placed in water and taken as a cold tea or the branches and leaves are decocted (boiled) in water. When the wood chips are steeped in cold water for a few hours, they confer a blue hue to the water (hence one of its popular names in Spanish, palo azul or "blue stick"). Used for urinary infections, to improve urine flow (diuretic), against kidney inflammation (nephritis) and pain, against kidney stones, to lower fevers, to treat stomach problems (colics), and as a general tonic (Jiménez, 2011; Mendoza-Castelán and Lugo-Pérez, 2011; Salinas-Hernández et al., 2008; Martínez, 1989).
- The tea is added to the water for livestock and poultry to drink in order to prevent disease (Jiménez, 2011; Martínez, 1989).
- The leaves of E. texana (Texas kidneywood) are macerated (soaked) in water and the cold tea is drunk to relieve kidney problems (Quattrocchi, 2012)

Source: https://www.utep.edu/herbal-safety/herbal-facts/herbal%20facts%20sheet/kidneywood.html

Kidneywood-Medicinal Uses





KIDNEY WOOD TEA HEALTH BENEFITS Alleviates urinary Protecting kidney tract pain TEA



FDA Discisimer: This statements have not been evaluated by the Food & Drug Administration. This product are not intended to diagnose, that, cure or prevent any classes

Human Studies on Kidneywood

- **Inflammation:** A study by Gutiérrez and Báez (2014) using diabetic mice showed that a kidneywood methanol-water extract possessed considerable antioxidant activity against free radicals or reactive oxygen species (ROS) that cause oxidative stress and inflammation. Additionally, the plant compounds showed anti-glycation, liver -protective and hypoglycemic (lower blood sugar levels) actions that could be potentially beneficial against type 2 diabetes.
- Antibacterial & Oral Health: An ethnobotanical study of ethanol extracts obtained from various medicinal plants used in the Mexican traditional medicine to treat oral bacterial diseases showed that kidneywood was among those that exhibited the highest in vitro inhibitory effect against the bacterial species Streptococcus mutans and Porphyromonas gingivalis (Rosas-Piñón et al., 2012).

Source: https://www.utep.edu/herbal-safety/herbal-facts/herbal%20facts%20sheet/kidneywood.html

Animal Studies on Kidneywood

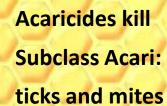
- A 2015 study evaluated the in vitro acaricidal (tick-killing) effect
 of two types of compounds known as coatlines and matlalines,
 extracted from kidneywood. The results of the study showed that
 the acaricidal activity of matlalines against both larvae as well as
 adults was more much more efficient compared to the coatlines.
 The authors concluded that some of the kidneywood
 compounds show promise against certain species of cattle
 ticks, such as Rhipicephalus (Boophilus) microplus, for example
 (Gutiérrez et al., 2015).
- Experimental planting as part of IPM for mite control?



Bee Application-IPM for Varroa mites?











wha t

it:

Scientific classification

Kingdom: Animalia

Phylum: Arthropoda

Subphylum: Chelicerata

Class: Arachnida

Subclass Acari

Order: Mesostigmata

Family: <u>Varroidae</u>

Genus: <u>Varroa</u>

Species: V. destructor

Binomial name

Varroa destructor

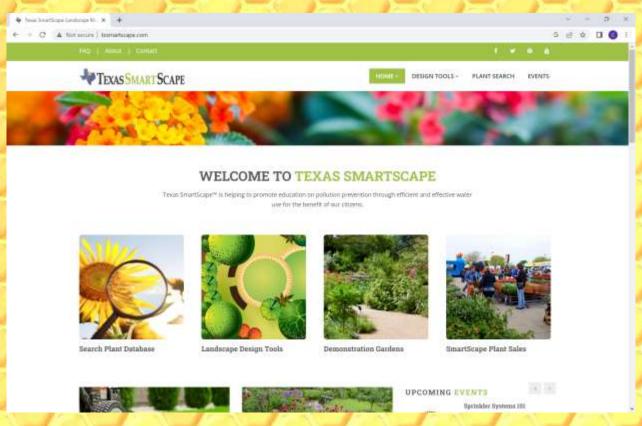
Anderson & Trueman, 20004

Sources of Kidneywood

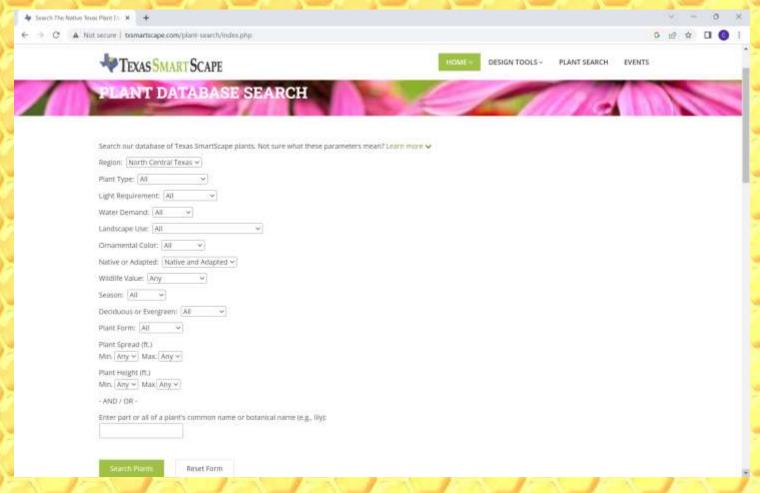




How to Find Bee Friendly Plants Texas Smartscape



Texas Smartscape





Floral Adventures

(And Other Exploits)

From The
Foragers Of

"Bee'opatra
And (the late)

"Bee'fertiti

April 2023 Melinda Wahl



BLACK FOOT DAISY

Herbaceous Perennial

- Found on limestone
- Full sun
- Drought tolerant

WHITE AUTUMN SAGE

Perennial semi-woody dwarf

- Full sun
- Drought tolerant needs water to be established

MEADOW IN APRIL



Blue bonnets in full bloom. Next up – bee balm, cosmos, sunflowers and more

EASTER TRADITIONS AND BEES

Ukranian Easter Egg – Pysanky - protection for bees!

A pysanky was placed beneath each bee hive at Easter to protect it from evil spirits and insure good production of honey

A German superstition "It is said that no bee will fly away the whole year, and that they will settle low down when they swarm if they are fed on Maundy Thursday (Holy Thursday) before sunrise with food mixed with some earth thrown up by a mole the previous night.



Germans say: SAVE THE MOLES!



Floral Adventures

(And Other Exploits)

From The
Foragers Of
'Bee'opatra
And
'Bee'fertiti II

May 2023 Melinda Wahl



Perennial, native Full sun Drought tolerant

They are both as beautiful in a meadow as they are in a more formal landscaped or garden.

ENGELMANN DAISY

Perennial, native Full sun Drought tolerant

MEADOW IN MAY





Blue bonnets fading, Indian blankets & cutleaf daisies blooming Next up – bee balm, cosmos, sunflowers and more

BEES ARE AMAZING!

A beekeeper forgot to put the frames back in the hive, so the bees built this themselves. It takes into account airflow and temperature regulation.

REALLY?

YOU BE THE JUDGE





Floral Adventures

(And Other Exploits)

From The
Foragers Of
'Bee'opatra II
And
-'Bee'fertiti II

June 2023 Melinda Wahl



LANTANA

Perennial, native, bloom all summer Full sun, drought tolerant Die back in winter, cut to near ground – will explode in summer to several feet around



TEXAS LILAC

Perennial, native Full sun, drought tolerant Short bloom cycle Manage shoots of growth

MEADOW IN JUNE





Indian blankets are fading –

Bee balm, cosmos, black eyed susan in full bloom –

Next up – sunflowers and cosmos while meadow goes to seed

GARDENING IN JUNE

Going to seed - When annual wildflowers begin to fade in your meadow, it's tempting to want to clear the brown patches – BUT WAIT!!!! **Let it sit until September.**

What to plant – It's not the best time – but there are options – you can still scatter cosmos, zennias, poppies, and cornflowers

Water – as we move into the summer heat, pray for rain, and keep new draught tolerant plantings watered

Planning – get out the gardening books and plan your garden now; take a class on composting or garden design

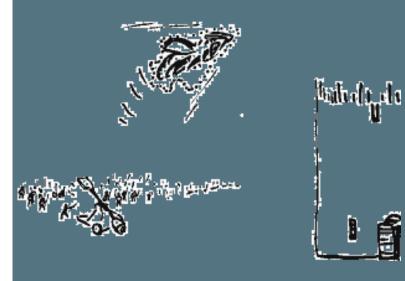
BEES in WARZONES!

Poisonous honey

- 1000 Pompei troops discovered cache of honey
- Soon afflicted with delirium and seizures
- Quickly attacked their enemy had baited them
- Rhododendron and Azalea

Catapulting Beehives

Romans, 12th Century crusades Civil War, WWI and WWII, Vietnam, etc





Floral Adventures

(And Other Exploits)

From The
Foragers Of
'Bee'opatra II
And
'Bee'fertiti II

August 2023 Melinda Wahl



GLOBE AMARANTH

Perennial/annual – pink, white, orange; any soil; blooms summer/fall Full/partial sun, water every 7 days Die back in winter, may come back if winter not too cold; cut to ground



BUTTERFLY WEED

Perennial, native – orange, yellow; any soil; blooms summer Full sun, water every 7 days; young plants need a little more water

GARDENING IN AUGUST

Going to seed - When annual wildflowers begin to fade in your meadow, it's tempting to want to clear the brown patches – BUT WAIT!!!! **Let it sit until September.**

What to plant –start fall seedlings, keep on the porch for later transplant – mums, swiss chard, okra, pumpkin

Water – as we continue in the summer heat, pray for rain, and keep new draught tolerant plantings watered

Planning – get out the gardening books and plan your garden now; take a class on composting or garden design

BEES in 107 Degrees!



Self-destructing Male Worker Bees

Thought sweating on a hot day was uncomfortable?

Intense heatwaves cause male worker bees to die from shock in an apocalyptic love explosion...



Floral Adventures

(And Other Exploits)

From The
Foragers Of
'Bee'opatra II
And
'Bee'fertiti II

October 2023 Melinda Wahl



JOE PYE WEED

Perennial, related to chrysanthemum Blooms in the fall Full sun, needs fertile soil and water Grows 3 to 6 feet or taller

ASTER

Perennial, cold hardy
Bloom late summer to fall
Grows 1 to 3 feet
Full sun, dry to medium moisture



PREPARING A MEADOW

- Site characteristics
 - 6 hours direct sun
 - uncompacted well drained soil (consider expanded shale)
 - Square/rectangle –
 3 ft x 2 ft mine is 18 ft x 20 ft
 - Remove existing grass Sept/Oct
 - Consider whether to till
 - Late Oct Soak seeds warm water 6 hrs and scatter
 - Nov / Dec / Jan Keep moist



CHOOSING A SEED MIX

Try a mix of spring, summer blooms:

Spring – Cutleaf Daisy, Texas

Bluebonnet, Indian Blanket

Summer - Black eyed Susan, Cosmos,

BeeBalm, Sunflowers

My seed source – Native American Seed www.seedsource.com – 325 446 3600 Guidance on how much seed type /size of meadow

Expert Tip: Ask about scarified seeds

20XX 56

BEES playing Football!

Did you know bees can learn to play soccer?

- Bees memorize a lot
- They can count, recognize points of interest, learn, teach each other and improve





Floral Adventures

(And Other Exploits)

From The
Foragers Of
'Bee'opatra II
And
'Bee'fertiti II

March 2024 Melinda Wahl



NASTURTIUM

Annual, full sun, drought tolerant Bloom in May/June Climbing, cascading or bushy Yellow, Orange, Red, White, Pink The whole plant is edible —



MEXICAN MINT MARIGOLD

Perennial, well adapted to Texas
Full/part sun, drought tolerant
Bloom in late summer; leaves taste
like tarragon, scent like anise/licorice
Weekly deep watering, good drainage

GARDENING IN MARCH

Beds – Clear out old leaves and dead plants from winter freeze, add compost and other additives before planting

What to plant -

tomatoes, peppers – plan to harvest before summer heat herbs – dill, basil, oregano perennials, bushes, trees

Water – check your water systems and repair as needed; watch the forecast – supplement water for rain as needed

MEADOW IN MARCH





My first bluebonnet bloomed Feb 28

BEES Up Close!

Picture of the face of a bee taken with a high resolution camera.

The eyes look like they are made of carbon fiber!





Floral Adventures

(And Other Exploits)

From The
Foragers Of
'Bee'opatra III
And
'Bee'fertiti III

April 2024 Melinda Wahl



SNAP DRAGON

Annual or can be perennial
Full sun, drought tolerant
Bloom in fall and spring
Pink, Orange, Red, White, Yellow
Two colors helps bees pollinate



IRIS

Perennial, well adapted to Texas
Full/part sun, drought tolerant
Bloom in Spring – Different colors will
lengthen blooming season
Cut back in fall and thin when needed

GARDENING IN APRIL

Beds – apply mulch to suppress weeds and retain moisture; deadhead spent spring blooms frequently to encourage continuous blooming

What to plant - direct seed

corn, beans okra, radishes – harvest early summer sunflowers, zinnias cosmos – bloom in the summer Keep soil evenly moist until germination, water gently Once seedlings have first set of true leaves, thin to final spacing on package

Water – check your water systems and repair as needed; watch the forecast – supplement water for rain as needed

MEADOW IN APRIL



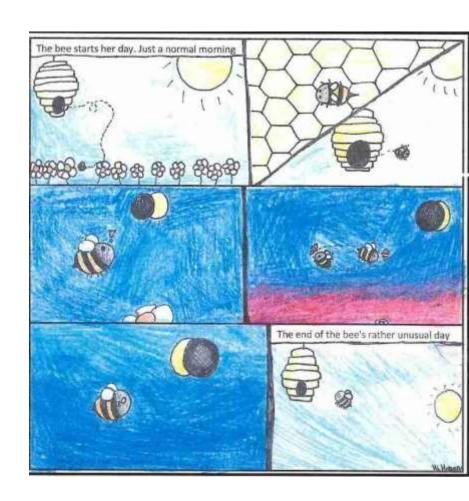


Bluebonnets, butter cups, cowcockle, blue flax in bloom; Black eyed susan, bee balm, sunflowers, Indian blankets establishing

BEES During an Eclipse!

2017 Eclipse – tiny microphones set among flowers and in hives

When the sun is hidden, many bees return to hive, others just stop on a flower to wait in confusion







- Bees love them
- Starting to bloom
- Easy to grow

https://pics.davesgarden.com/pics/2010/05/03/SATexasGuy/b00c1a.jpg

- Plant now & bloom all summer
- Don't have to re-plant each vear

| e. | | |
|----|----------------|--|
| Š | Attracts | Bees, Butterflies, Hummingbirds |
| | Season | Spring, Summer, Fall |
| | Exposure | Full sun |
| | Water need | Low, Drought tolerant |
| | Heat | Zone 4 to 9 (we're 8.5) |
| ļ | Climate | Zone 8 to 24 (we're 8a) |
| 1 | Туре | Shrub |
| | Height, Spread | 2 to 3 ft |
| | Soil type | Chalk, Loam, Sand |
| 2 | Drainage | Moist but Well-Drained |
| H | htt | ps://www.gardenia.net/plant/salvia-greggii |

month-in-the-hive-inspection-

checklist/

Unknown

How Can I Find Plants?

| Organization | Notes | web link |
|----------------------------|---|--|
| Texas Smart Scape | Select: plant type, size, sun, moisture, annual, pollinators, | txsmartscape.com |
| Cross Timbers Urban | Native Plants of the Cross | https://ctufc.org/native-plants-of- |
| Forestry Council | Timbers Eco Region | the-cross-timbers/ |
| Native Plant Society | North Central Texas pdf | https://www.npsot.org/chapters/cro |
| of Texas | North Central Texas pur | ss-timbers/plants-for-cross-timbers/ |
| Xerces Society | Southern Plains pdf | www.xerces.org |
| Texas Parks & Wildlife | Native Insect Pollinators in TX | https://tpwd.texas.gov/wildlife/wildl ife-diversity/nongame/native- pollinators-and-private-lands/ |
| Matra Baakaanara | Collection of presentations, | https://metrobeekeepers.net/this- |

click "Plant of the Month"

Actually talk to your neighbor

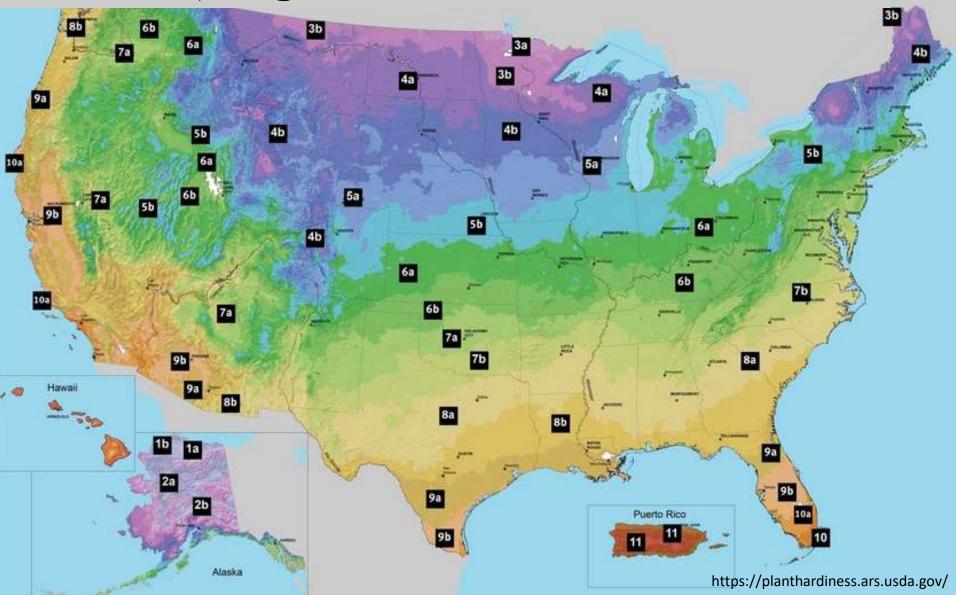
· Share your favorite way to find plants?

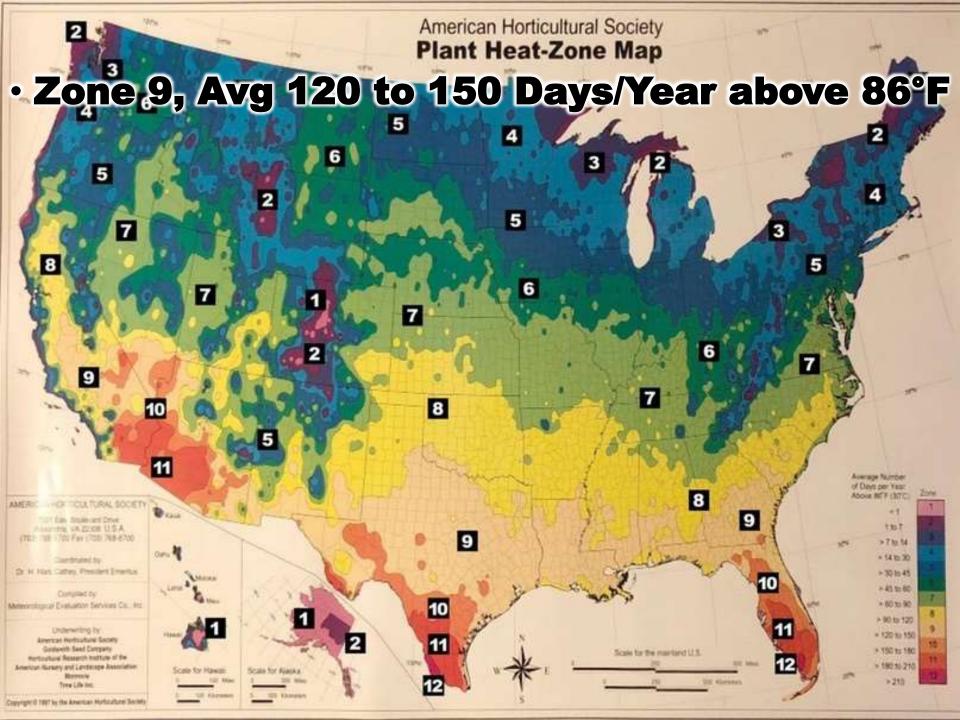
Metro Beekeepers

Neighbor

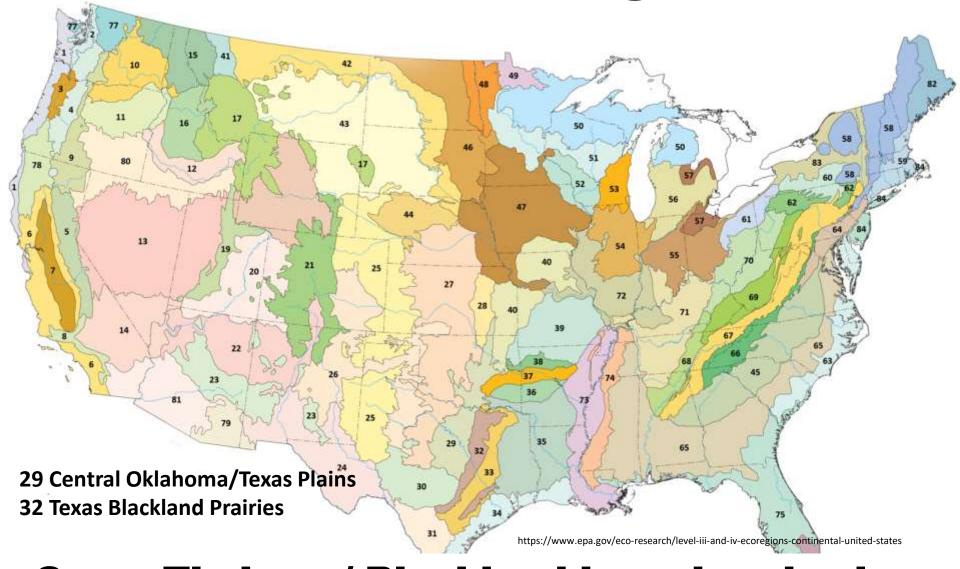
Plant Hardiness Zones

· Zone 8a, Avg Winter minimum: 10 to 20°F





Level 3 Eco-Regions



 Cross Timbers / Blackland boundary is close to Tarrant / Dallas county line

