



Agenda

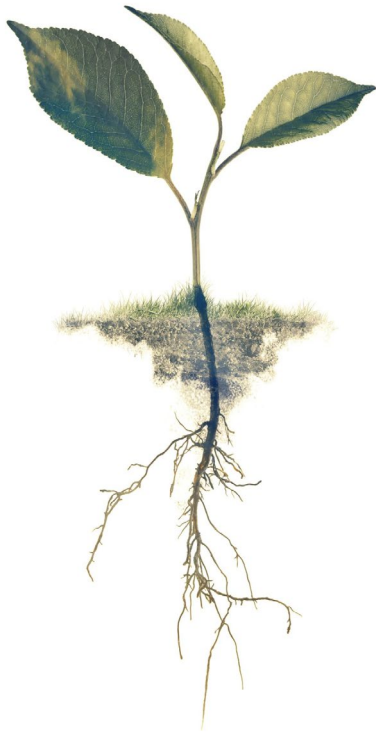
- **What we will cover in this series:**
 - **Annuals vs Perennials vs Biennials**
 - **What is an herbaceous perennial?**
 - **Deciduous vs Evergreen vs Semi-Evergreen**
 - **Know your Latin!**
 - **How to choose the right plants for the right space**

Annual vs Perennial

Plants are broken down into 3 categories based on their life cycle

ANNUALS

- Plants live only 1 life cycle
 - Seed to plant/flower to seed to death
- Need to be replanted each year
- Some will reseed themselves each year
 - Many that grown in nurseries will not seed and have to be replanted each year



Annual vs Perennial

Plants are broken down into 3 categories based on their life cycle



PERENNIAL

- Plants live more than a single life cycle
- Grow bigger & better over years
- Not have the same lifespan
 - Some live 3 to 5 years like Lupine, Columbines, Delphiniums & Heuchera (zone specific)
 - Tender perennials are plants that are from tropical or warm climates that live as perennials in their area
 - Annuals in most other zones
 - Can be kept in pots & overwintered in warm area

What is a Biennial?



- Plants that take 2 years to complete their life cycle
- 1st year – develop root system & green growth
 - May stay low to ground so do not freak out
- Most will not flower & seed until the 2nd year, when they will then die
 - Many need 'vernalization' or a cold period to flower (think of bulbs)

WHAT ARE BIANNUAL THEN??

These are perennials that can bloom 2x in a year

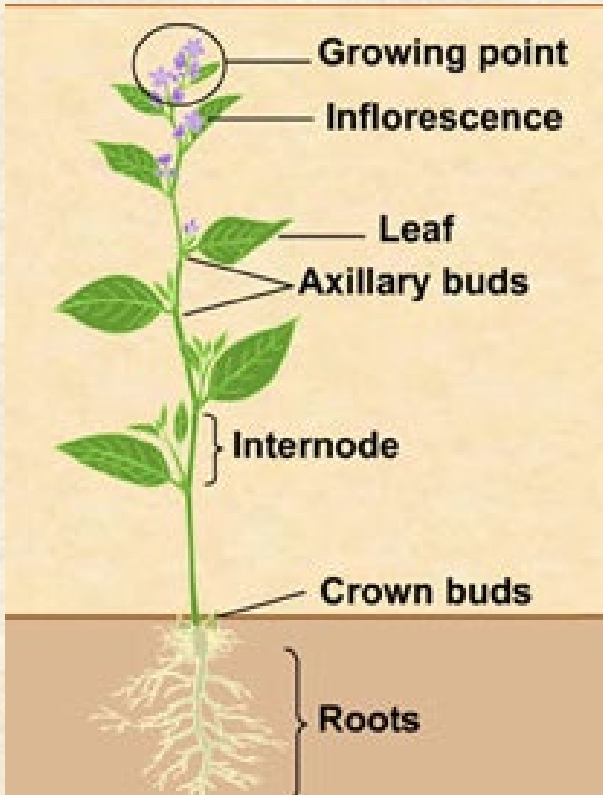
Spring blooming perennial that are pruned correctly

Herbaceous Perennials

What & why do they matter?

Herbaceous perennials die back at the end of a season but are NOT dead!!!

- The green growth of the plant dies back, dropping leaves & branches may be dead
- Plant is still alive at the crown/roots
- *Know your plant!*
 - Some will regrow leaves on the existing branches
 - Some can be trimmed down toward the crown in late winter/early spring
 - Please keep in mind beneficial insects!



<https://passel2.unl.edu/view/lesson/50d18f39cff4/2>

Deciduous vs Evergreen vs Semi-Evergreen

Deciduous

- Plants drop all leaves seasonally (typically fall/winter) to conserve energy & regrow leaves on existing branches in spring

Evergreen

- Plants retain their foliage all year round

Semi-Evergreen

- Plants drop some leaves during severe dry or cold spells or may drop some leaves occasionally

Why a Name Matters



Know your Latin

Plant names can be confusing... common names differ in different regions/countries

Foxgloves are also known as Fairy Gloves, Fairy Bells, Witch's Belles, Dead Man's Bells, Cow Flop

Botanical Name Nomenclature

Genus species (variety of plant) x Cultivar

Foxglove is *Digitalis purpurea maculata*

Why a Name Matters



Botanical Name Nomenclature

- **Genus** (always capitalized & italicized)
 - Refers to distinct characteristics of a plant, creating a smaller group
 - Based on leaf, flower, needle, cone, bark, seed other plant characteristics
- **Species** (not capitalized, still italicized)
 - Narrows down the plant even more
 - Not all plants in a given species is identical
- **Variety** (not capitalized, still italicized)
 - Population that displays marked differences in nature
 - Can be color of flower, detail on flowers, leaves, etc.

Digitalis purpurea maculata – Purpurea means purple & maculata refers to spotted or mottled of flowers

Cultivars



- A more modern term
- Refers to assemblage of cultivated plants which is clearly distinguished by 1 or more characteristics
- Characteristics may NOT reproduce when a flower goes to seed; thus, may need to rebuy

Important to note: if cross pollination occurs, the new plant may revert to the original variety and not keep cultivar's features.

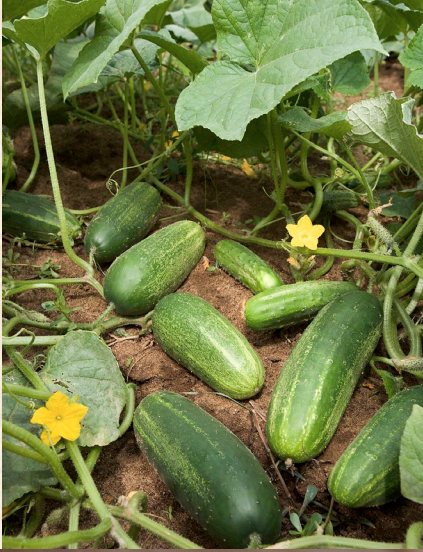
Why Family Matters

Knowing a plant's family is useful when making decisions like:

Plants in a family are genetically related, share characteristics & are susceptible to similar pests & diseases

- **Rotating plants or crops** (vegetables)
- **Pest Management & Disease Control**
 - Planting the same family in succession can lead to a buildup of shared pests
 - Some plant families share similar issues: Strawberries (Rosaceae) & Solanaceae (Tomatoes) are susceptible to verticillium wilt
- **Soil Fertility**
 - Many plants use the same nutrients so this helps to know what may need to be added back to the garden
 - Planting members of Fabaceae (legume) add nitrogen to the soil
 - Liliaceae are heavy potassium users

Why Family Matters



Curcurbitaceae have deeply lobed or separated leaves, separate male & female flowers (monoecious) w/ 5 fused petals, similar fruit types & tendrils for climbing

Susceptible to

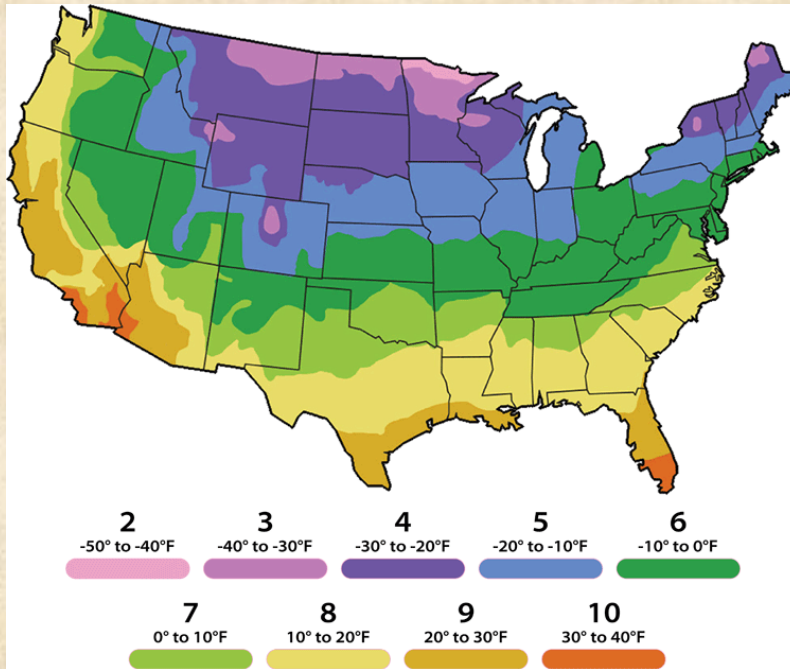
- Cucumber Beetle
- Squash Vine Borer
- Squash Beetles
- Blossom end rot (calcium deficiency)



How to choose the right plant for the right space

- WHAT ZONE DO YOU LIVE IN?
- WHERE IS THE SUN & SHADE (PART SUN/PART SHADE) IN YOUR YARD/GARDEN?
- DO YOU HAVE MICROCLIMATES IN YOUR YARD/GARDENS?
- WHAT IS YOUR OBJECTIVE?
- WHAT IS GROWING NEXT TO YOUR PLANT?
- HOW MUCH WATER DOES YOUR PLANT NEED?

US Zones or Plant Hardiness Zones



Average Annual Extreme Minimum Temperature 1976-2005

Temp (F)	Zone	Temp (C)
-60 to -50	1	-51.1 to -45.6
-50 to -40	2	-45.6 to -40
-40 to -30	3	-40 to -34.4
-30 to -20	4	-34.4 to -28.9
-20 to -10	5	-28.9 to -23.3
-10 to 0	6	-23.3 to -17.8
0 to 10	7	-17.8 to -12.2
10 to 20	8	-12.2 to -6.7
20 to 30	9	-6.7 to -1.1
30 to 40	10	-1.1 to 4.4
40 to 50	11	4.4 to 10
50 to 60	12	10 to 15.6
60 to 70	13	15.6 to 21.1

- Hardiness zones are about the COLDEST temps typically in an area
- Does not account for heat, rainfall, humidity
- Each zone covers a 10 degree range

Why Zones Matter

PLANT ZONE HARDINESS

- Zones are based on the winter temperatures of an area
 - Each zone covers a 10-degree range
- This is to help determine if a plant can survive the winters in an area
- Why Zones Matter?
 - Perennials, shrubs & Trees can come back year after year so need to be able to survive and thrive in winter climates
 - Annuals & vegetables – frost dates matter here and are specific to zones
 - Microclimates in your yard are also a factor
 - Sun exposure, wind, urban heat islands, etc.



Zones

ZONE	Ave Minimum Winter Temp	Sample Hardy Plants
3	-40 to -30 F	Extremely cold-tolerant perennials & early crops that can handle harsh winters (Peonies, Delphiniums, Columbines)
4	-30 to -20 F	Cold-hardy flowers & shrubs thrive w/ reliable snow cover for insulation (Lilacs, Coneflowers, Hellebores)
5	-20 to -10 F	Protect tender shoots from late frost (Bleeding Heart, Astilbe, Coral Beels)
6	-10 to 0 F	Mixed gardens of perennials, shrubs & hardy ornamentals (Hydrangeas, Sedum, Black-eyes Susan)
7	0 to 10 F	Mild winters allow for some tropicals & flowering shrubs (Lavender, Camellia, Crepe Myrtles)
8	10 to 20 F	Warmer climate supports evergreen shrubs, citrus, & long-blooming ornamentals (Gardenia, Fig tree, Agapanthus)
9	20 to 30 F	Tropicals, succulents and heat-loving plants w/ some annuals growing year-round (Citrus, oleander, Bougainville)
10+	30 F+	True tropical climate w/ lush foliage & exotic flowers year-round (Banana, Bird of Paradise, Hibiscus)

Keep in mind some plants can live in different regions during different times of the year 8b (D/FW) – can seed/plant cold tolerant flowers in the fall for Spring blooms, but the Plants will be done around May or so when it starts to get hot.



Light (Sun)

Know your Yard 1st!

- What is the direction of your yard/beds?
- Where does the sun rise & set?
- Do the bed receive morning sun, afternoon sun and/or evening sun?
- What kind (if any) shade is there?
 - Is there a Tree near by?
 - Is there a Fence or building near by?

What does the plant need?

- Read the tag – plant tags should list requirements on it.
- Look it up

Light (Sun)

Let's talk about Sun

- **Full sun** - 6+ hours of sun/no shade
- ***Sun** – 6 hours or less of sun
- **Part Sun** – 3 - 5 hours of sun & <4 hours of shade daily (also called Light Shade)
- **Partial Shade** – 2 hours or less of direct sun
- **Shade or Dense Shade** Think deep forest or little to no sun



Microclimates

Microclimates are local climate differences of a small area within the surrounding area

- Can offer different growing conditions than surrounding area
- Includes sun exposure, wind, urban heat islands, buildings, trees, etc.
 - North Exposure receives the least amount of sun, holds moisture but frost may linger
 - South Exposure gets more sun, longer growing seasons; some subtropics can be sustained
 - East Exposure morning sun w/ less wind. Good for plants that need full AM sun and afternoon shade
 - West Exposure is HOT, drier and windier.

Think about sitting under a shady tree. Or being on a hot sidewalk in the middle of summer... these are microclimates

Objectives

- Are you planning a vegetable garden?
 - Find out the easiest you can start seeds vs transplants, etc
- Is it a physics or herb garden?
 - What grows in your area all year-round vs annually?
- Is it an dyer's garden?
- Is it an ornamental bed?
 - Do you want all evergreens or deciduous or both?
- Are natives or adaptative plants important in your landscape?
 - Natives are plants naturalized to a specific zone/state/location
 - Adaptive plants are plants that have become adapted to a location/zone/state's weather, climate, soil, etc.

PLANTS!!!

- What is the plant you choose (Common name, Latin name, variety, etc.)
- What does it need?
 - Sun exposure or sunlight - # of hours needed per day
 - Will also tell you if the plant needs part-sun, part-shade, etc.
 - Water needs
 - Average Size (height x width) of mature plant
 - Spacing – based on average size & space needed between plants to achieve max growth
 - Hardiness (Zone info)
 - Lists lowest temp plant can survive & sometimes highest
 - Some tags have zone location
 - Fertilization needs
 - Other Possible features include animal resistance, habitat (mounding, shrub, vine, etc.), bee hazard

How to Read a Plant Tag

Front

Back

Sun Exposure
Number of hours of sunlight needed per day

Common Name

Scientific Name
Plant's genus and species

Bloom Season
When you can expect the plant to bloom



Water

Let the soil dry out in between waterings

Let the soil dry an inch below the surface between waterings

Keep the soil moist constantly

Average Size

Maximum height and width when fully grown

Spacing

How much space to leave in between plants in a garden

Hardiness

Ability to withstand adverse growing conditions

Zone

Area of the country where the plant grows best

Fertilization

How often to fertilize

Bee Hazard Warning

Remember to check the warning labels on pesticides before application

Mounding Growth

How the plants grow, either vertically, horizontally or both

Animal Resistance

Certain animals (deer, rabbits) prefer other plants



PLANTS!!!

THINGS TO CONSIDER WHEN PLANTING YOUR NEW PLANTS:

What is growing next to it?

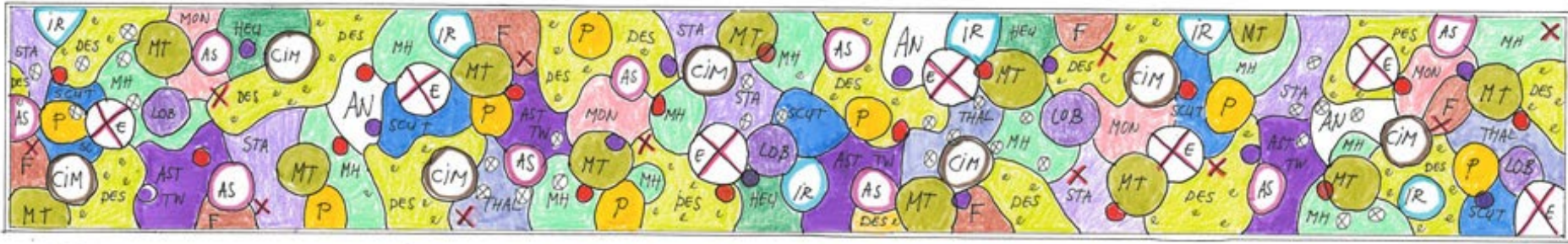
- Is there space to reach mature size? Will it impede the other plant's growth?
- How much water does it need?
 - Does it need more or less than surrounding plants?
 - Will the root system spread farther than the plant's size & compete with other plants for water? Trees
- Sunlight – will the new plant be shaded out or shade out other plants near it?
 - Consider mature size!
- Fertilizer – do all plants in a bed have the same needs?
 - It is impossible to use man-made fertilizer in a specific area & not get leeching
- Keep in mind possible disease & pest issues

PLANTS!!!

THINGS TO CONSIDER WHEN PLANTING YOUR NEW PLANTS:

Mulching vs hardscaping

- Is there space to reach mature size? Will it impede the other plant's growth?
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|--|--|---|--|
|  MONARDA 'JACOBUS CUNE' OR MONARDA 'TALUO' |  SCUTELLARIA INCANA |  LOBELIA VEPRARIENSIS |  ASTER 'TWILIGHT' |
|  HEUCHERA VILLOSA |  EUPATORIUM MAC. 'RIESENSCHIRM' |  IRIS SIBIRICA 'PERRY'S BLUE' |  ASTRANTIA 'CLARET' |
| RANDOM DISTRIBUTION OF:
DIGITALIS FERRUGINEA AND
HYLOMECON JAPONICA |  MOLINIA LITORALIS 'TRANSPARENT' |  DRYOPTERIS ERYTHROSORA
POLYSTICHUM SETIFERUM |  THALICTRUM DIPTEROCARPUM |
|  GERANIUM 'PATRICIA' |  CIMICIFUGA (ACTAEA) RAMOSA 'JAMES COMPTON' |  ANEMONE 'HONORINE JOBERT' |  DESCHAMPSIA 'GOLDSCHLEIER' |
|  ANEMONE HYBRID (SINGLE FLOWER) |  STACHYS OFFICINALIS |  MOLINIA CAERULEA | |

Develop a Plan

- The best way to make sure your garden has the look & feel you want is to develop a plan
- This helps you plan areas of your garden/landscape
 - What types of plants & varieties?
 - Full plant sizes
 - Like watering needs
 - Like sunlight needs
 - Like fertilizing needs
 - Color scheme
 - Seasonal timing (early spring, mid spring, summer, autumn, etc.)
 - Vegetables that support each other or companion planting

Seed Sources:

- Botanical Interest - www.botanicalinterests.com
- Ferry-Morse - <https://ferrymorse.com/>
- Johnny's seeds - www.johnnyseeds.com/
- Baker Creek Seeds - <https://www.rareseeds.com/>
- TomatoFest - <https://www.tomatofest.com/>
- Burpee - <https://www.burpee.com/>
- Seed Therapy - seedtherapy.com/

Indoor Seed Starting Supplies:

- Plant Lights (<https://www.amazon.com/dp/B07LGTJQ2S?tag=dallasgarden-20&th=1>)
 - Small bungee cords to help raise/lower lights
(https://www.amazon.com/dp/B0D9CZ7Q2L?ref_=ppx_hzsearch_conn_dt_b_fed_asin_title_3)
- Miracle Growth Cactus, Palm & Citrus Potting Mix (not seed starter mix)
- Vermiculite
- Seed starting trays
 - <https://www.amazon.com/dp/B07R9S38VX?tag=dallasgarden-20&th=1>
 - https://www.amazon.com/gp/product/B07BLRZQW?tag=dallasgarden-20&ref_=as_li_ss_tl
- Heating mats (<https://www.amazon.com/dp/B074753J5V?tag=dallasgarden-20&th=1>)
- Garden marker (<https://www.amazon.com/dp/B01FOG9KWI?tag=dallasgarden-20>)
- Plant tags (<https://www.amazon.com/dp/B01HTDDFKW?tag=dallasgarden-20&th=1>)
- FoxFarm Grow Big Fertilizer

Other Recommended Supplies

- Espoma Bio-Tome Starter
- Moisture Meters
 - https://www.amazon.com/dp/B07DM4LS1D?ref_=ppx_hzsearch_conn_dt_b_fed_asin_title_5&th=1
 - https://www.amazon.com/dp/B0C7GXZLVK?ref_=ppx_hzsearch_conn_dt_b_fed_asin_title_5&th=1

Fertilizers:

- Microlife Multipurpose 6-2-4 Fertilizer
- Espoma is a great fertilizer with different applications
- FoxFarm Happy Frog series

AnneMarie Krupa, Dallas County Master Gardener

www.tinygypsy ladycreations.com

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