Herb Gardening in the Low Desert
Carolyn Hills
Arizona Herb Association
&
Maricopa County Master Gardeners

Questions??
Ask as we go, please!!

What We’ll Talk About Today
• Herb Gardening
  – Propagation Methods
  – Fall Tasks for Established Plants
  – Herbs You Can Propagate in Fall
  – Spring Tasks for Established Plants
  – Herbs You Can Propagate in Spring
• Summary
• Questions

Maricopa County Master Gardeners
• 600 Volunteers who “help promote environmentally responsible gardening & landscaping in the Low Desert”
  – Desert Garden Institute

What We’ll Talk About Today
• QUICK OVERVIEW
  – Intro to MGs & AHA
  – What’s an Herb?
  – Where to Plant/How to Grow
  – Recommended Gardens to Tour
  – Recommended Books
  – Where to Buy/Botanical Names
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  - Ambassadors
  - Speakers Bureau
  - Fall Plant Sale
  - Citrus Clinics

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  - Real Gardens for Real People Tour
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  – Real Gardens for Real People Tour
  – Diagnostic Clinics
  – Hotline, Website, List Serve, Publications

Maricopa County Master Gardeners

• Become a Master Gardener Volunteer!
• To find out about next training class
  – Call 602-470-8086 or
  – Google “Maricopa County Master Gardener”

Arizona Herb Association

est. 1988

• 100-200 herb enthusiasts
• Meet 1st Thursday of each month (except Summer) 7:00 p.m.
• Speakers on all aspects of herbs

Arizona Herb Association

est. 1988

• Demonstration Garden
• Speakers Bureau
• Culinary Group
• Scholarships & Public Service
• www.azherb.org for location & topic
• Or 602-470-8086 ext 830

“Herb” vs. “Erb” (and “Yerba”)

• Oxford English Dictionary

Herb
“Herb” vs. “Erb” (and “Yerba”)

- Webster’s *American* Dictionary

  Either pronunciation accepted

“Herb” vs. “Erb” (and “Yerba”)

- “Yerba” is the *Spanish* word for Herb

Yerba Anis (Mexican Tarragon)
Yerba Mansa (Swamp Root)
Yerba Buena (Spearmint)

What is an Herb?

- An Herb is a PLANT:
  - Trees
  - Shrubs and sub-shrubs
  - Vines
  - Woody-stemmed perennials
  - Herbaceous plants
    - annual, perennial and biennial
  - Ferns
  - Fungi

What is an Herb?

- “The term ‘herb’ refers to seed-bearing, generally fleshy annuals, biennials, and perennials, aromatic or useful shrubs, vines, and trees. The defining characteristic for these plants is their usefulness, past or present, including their value for flavoring, medicine, ornament, economic, industrial, or cosmetic purposes. For the educational purposes of this garden, spices, traditionally defined as aromatic parts derived from the bark or seeds of a plant, may also be included within appropriate theme areas, depending upon the history and users of the spice and the appropriateness of the plant to the garden.”
  - U.S. National Herb Garden

What is an Herb?

- “The term ‘herb’ also has more than one definition. Botanists describe an herb as a small, seed bearing plant with fleshy, rather than woody, parts (from which we get the term “herbaceous”). In addition to herbaceous perennials, herbs include trees, shrubs, annuals, vines, and more primitive plants, such as ferns, mosses, algae, lichens, and fungi. They [herbs] are valued for their flavor, fragrance, medicinal and healthful qualities, economic and industrial uses, pesticidal properties, and coloring materials (dyes).”
  - Herb Society of America

What is an Herb?

- “In its essential spirit, in its proper garden meaning, an herb is a garden plant which has been cherished for itself and for a use and has not come down to us as a purely decorative thing.”
  - Henry Boston (1935)
What Makes a Plant an Herb?

- A Herb is a USEFUL Plant:
  - Culinary
  - Medicinal
  - Crafting
  - Dyes
  - Religious/Cultural/Ceremonial
  - Beauty/Personal Care
  - Aroma

What Part of the Herb is Used?

- Roots/Bulbs
- Stems
- Leaves
- Flowers
- Fruits
What Part of the Herb is Used?
- Roots/Bulbs
- Stems
- Leaves
- Flowers
- Fruits

(Seeds or Bark = Spices)

Where do Herbs Come From?
Every Land Mass – Every Culture

Herbs are Easy to Grow in the Low Desert
- Many popular & common herbs originated in the Mediterranean or North Africa, places with:
  - hot climates
  - low rainfall
  - alkaline soils
- Just like Southwest USA

Where Should You Plant Herbs?
Traditional Herb Garden

Where Should You Plant Herbs?
Cloister Garden
Where Should You Plant Herbs?

Tudor “Knot” Garden
from “Practical Herb Garden” by J. Houdret

Mesquite Herb Garden

Another Mesquite Herb Garden

Aloe vera in a Xeriscape Landscape

Chaparral Sage in a Landscape
Where Should You Plant Herbs?

African Blue Basil on a Patio

Where Should You Plant Herbs?

Apple Mint as Garden Art

Where Should You Plant Herbs?

Rosemary Trailing Over a Parking Garage

Where Should You Plant Herbs?

Rosemary at a Gas Station

Where Should You Plant Herbs?

Rosemary as a hedge
Where Should You Plant Herbs?

- Rosemary as a hedge

Where Should You Plant Herbs?

- Breadseed (Opium) & California Poppies in a Wildflower Mix

Where Should You Plant Herbs?

- Breadseed Poppies in a Wildflower Mix

Where Should You Plant Herbs?

- Yerba Mansa in a Pond Environment

Where Should You Plant Herbs?

- Yerba Mansa in a Birdbath

Where Should You Plant Herbs?

- Anywhere!!

Local Herb Gardens to Tour

- Desert Botanical Garden
- Boyce Thompson Arboretum
- Tucson Botanical Garden
- Arboretum at Flagstaff
- Tohono Chul Park – Tucson
- Maricopa County Extension
**Beware of Most Herb Books and Magazines**

- Written in U.K. or Northeastern U.S.
- Poor guidelines for Low Desert
  - planting/harvesting calendars
  - sunlight/water requirements
- Great for photos, uses, history, design ideas, recipes, etc.

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**Recommended Gardening & Herb Books**

- **Low-Desert Herb Gardening Handbook**
  (Arizona Herb Association)
  - Herb planting & harvesting month by month
  - Specifically written for low-desert herb gardening

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**Recommended Gardening & Herb Books**

- **Desert Gardening for Beginners**
  (Arizona Master Gardener Press)
  - How to grow vegetables, flowers and herbs in an arid climate
  - Covers all the basics for desert gardeners

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**Recommended Gardening & Herb Books**

- **Desert Landscaping for Beginners**
  (Arizona Master Gardener Press)
  - Tips and techniques for success in an arid climate
  - Ch. 12 - Rose Care
  - Appendix B - Rose Varieties for the Low Desert

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**Recommended Gardening & Herb Books**

- **Earth-Friendly Desert Gardening**
  (Arizona Master Gardener Press)
  - Environmentally responsible gardening & landscaping in the low desert
  - Growing in harmony with nature saves time, money, and resources

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**Recommended Books**

- **The Arizona Low Desert Flower Garden**
  (Kirti Mathura)
  - Excellent reference on many local native wildflowers
  - At-a-glance symbols indicate water requirements, along with whether the plants attract birds, butterflies, or caterpillars.
Shopping for Herbs to Plant

- “Big Box” Stores
  - Good for “basic” herb plants/seeds... standard culinary
- Chain Nurseries
  - Nice herb selection. Shop around!
- Local Family-owned Nursery
  - If they don’t have it, they’ll order it! Wider selection
- Botanical Garden or Arboretum Plant Sale
  - Interesting “native” or “regional” herbs
- Arizona Herb Association
  - Hard-to-find herbs, cheap!

Shopping for Herbs to Plant

- Pinch, sniff and taste the culinary herbs!
- Won’t taste any different when growing in your garden
- Make sure you like them before you buy!
- Catalog/Internet - **Caution** - wrong planting season & transit damage

Botanical (Latin) Names

- Many unrelated plants have similar common names
- One plant may have multiple common names (different languages/dialects)
- Learn the botanical name to be sure you get the CORRECT PLANT

Botanical (Latin) Names

- Common Names Can Be Confusing!
  - “Basil Mint”
  - “Cinnamon Basil”
  - “Oregano Thyme”
  - “Cuban Oregano” (also called “Spanish Thyme”) 
    - NOT Oregano
    - NOT Thyme (Plectranthus amboinicus)
    - NOT from Cuba
    - NOT from Spain

Botanical (Latin) Names

- Mexican Tarragon
  - Rootbeer Plant
  - Yerba Anis
  - Winter Tarragon
  - Poor Man’s Tarragon
- And…

- Aztec/Nahuatl – Tzitziqui, Teyatlî
- Chinese (Cantonese) – 甜萬壽菊 [tìhm maahn sauh gūk]
- Chinese (Mandarin) – 甜萬壽菊 [tián wàn shòu jú]
- Danish – Mexikansk Esdragon
- German - Samtblume, Winterestragon, Mexicanischer Estragon
- French – Tagète, Estragon du Mexique
- English – Pericon, Mexican mint marigold, Winter tarragon, Mexican tarragon, Sweet marjoram, Spanish tarragon, Florida tarragon, Texas tarragon
- Spanish/Mexican - Yauhtli, Pericón Amarillo, Yerba Anis, Yerba Santa María, Anisillo
- Swedish - Mexikansk dragon
Botanical (Latin) Names

• What plant is this?
• “I don’t know... It's in POLISH!!”

Botanical (Latin) Names

• What plant is this?
• Matthiola bicornis
  – Maciejka Dwuroga
  – Annual Stock
  – Perfume Plant
  – Night Scented Stock
  – Evening Scented Stock
  – Evening Stock Flower
  – Evening Stock
• Common Names Can Be Confusing!

Botanical (Latin) Names

GENUS Mentha
FORM L. stoechas f. leucantha
SUBSPECIES L. stoechas subsp. pedunculata
SPECIES L. stoechas
CULTIVAR L. x intermedia ‘Grappenhall’
CULTIVAR L. x intermedia ‘Seal’
HYBRID L. x intermedia SPECIES L. latifolia
CULTIVAR L. angustifolia ‘Hidcote’
CULTIVAR L. angustifolia ‘Munstead’
SPECIES L. angustifolia
VARIETY L. dentata var. candicans
SPECIES L. dentata
GENUS Lavandula
GENUS Achillea
FAMILY LABIATAE/LAMIACEAE

A Quick Review of Propagation Methods

• Planting from Seed
  – Follow directions on package, adjusting for Arizona climate, seasons
  – Make sure to find out if you should sow inside or outside

A Quick Review of Propagation Methods

• Planting from Transplants
  – Break up root balls of root-bound plants
  – Most plants benefit from a light fertilizing (1/2 strength) when planted

A Quick Review of Propagation Methods

• Planting from Bulbs or Roots
  – Rule of Thumb: Plant twice as deep as the bulb or root is tall

Chart Courtesy of “Practical Herb Gardening” by J. Houdret
A Quick Review of Propagation Methods

- Layering

A Quick Review of Propagation Methods

- Stem Cuttings
A Quick Review of Propagation Methods

• Root Division

Fall Tasks for Established Herb Plants

• Remove Plants that Succumbed to the Summer Monsoons
  – Sages/Salvias
  – Thymes
  – Oreganos
  – Lavenders
  – Rosemarys

• Prune off dead branches
• Add compost/mulch to your garden
• Some herbs benefit from light fertilizing
**Fall Tasks for Established Plants**

- Water deeply to remove salts from root zone

**Fall Tasks for New Herb Plants**

- Soil Preparation
  - DRAINAGE is KEY!
  - Do NOT discard your native soil
  - Add organic amendments
  - Only add Nitrogen fertilizers to tropical, fast-growing herbs
  - Add gravel, coarse sand, pumice to increase drainage where needed

**Let’s Talk About Dirt**

- Original source: Decomposed ancient mountains
- Inorganic matter: ROCK
  - Many different particle sizes
  - Good structural basis for garden soil
  - Contains many of the essential mineral components necessary for plant growth

**Let’s Talk About Dirt**

- It is important to remember that soil in the Valley can be:
  - Often compacted, resulting in poor drainage
  - Sometimes so sandy that it drains quickly, resulting in no water retention
  - Generally nitrogen poor

**Let’s Talk About Dirt**

- Don’t throw away your soil!
  - Desert soil is good… It just needs some help!
- A good planting mix for many herbs is:
  - 1/3 backyard dirt
  - 1/3 mulch or compost
  - 1/3 pumice or perlite

**Watering Considerations**

- Check references to see if your herb choices are from dry or tropical areas
- Group the plants in the garden with others with similar water needs
- Dry origin herbs will thrive on drip irrigation, especially with more drainage
- Mulch around ROOTS to maintain uniform moisture - do NOT mulch stems
- Adjust watering as seasons change
What You Can Propagate in Fall

- Most herb plants are planted in Fall in the Low Desert.
- This is not an exhaustive list!

Aloe
Aloe vera or Aloe barbadensis

Arugula - “Rocket”
Eruca vesicaria subsp. Sativa

Artemisia
Artemisia powis-castle

Bay-Greek Laurel
Laurus nobilis

Cuttings may take 6 months to root.

Borage
Borago officinalis
Brittlebush
*Encelia farinosa*

Calendula-Pot Marigold
*Calendula officinalis*

Carnation/Dianthus
*Dianthus caryophyllus*

Catmint
*Nepeta sibirica or Nepeta mussinii*

Catnip
*Nepeta cataria*

Chamomile
*Matricaria recutita (German/Annual) & Chamaemelum nobile (Roman/Perennial)*
Chaste Tree (Monk’s Pepper Tree)
*Vitex agnus-castus*

Chervil
*Anthriscus cerefolium*

Chives-Onion
*Allium schoenoprasum*

Chives-Garlic
*Allium tuberosum*

Cilantro/Coriander
*Coriandrum sativum*

Coreopsis – Lance Leaved
*Coreopsis lanceolata*
Creosote  
*Larrea tridentata*

Saffron Crocus  
*Crocus sativus*

Dandelion  
*Taraxacum officinale*

Dill (Dill Weed)  
*Anethum graveolens*

Echinacea  
*E. angustifolia & E. purpurea*

Epasote/Epazote  
*Chenopodium ambrosioides*
**Fennel**
*Foeniculum vulgare*

**Feverfew**
*Tanacetum parthenium or Chrysanthemum parthenium*

**Flax-Scarlet**
*Linum grandiflorum*

**Fleabane**
*Erigeron karvinskianus*

**Garlic-Culinary**
*Allium sativum*

**Garlic-Elephant**
*Allium ampeloprasum*

Photo Courtesy of www.elephantgarlic.com
Garlic-Society
*Tulbaghia violacea*

Globe Artichoke
*Cynara cardunculus scolymus*

Gotu Kola
*Hydrocotyle asiatica major*

Hollyhock
*Althaea rosea*

Horsetail
*Equisetum arvense*

Jerusalem Artichoke
*Helianthus tuberosus*
**Jojoba**  
*Simmondsia chinensis*

**Lamb’s Ear**  
*Stachys byzantina*

**Lavender**  
*Lavandula spp.*

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**Lavender**  
*Lavandula dentata* - French  
*Lavandula stoechas* - Spanish

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**Lemon**  
*Citrus limonum*

**Lemon Balm** (aka Melissa)  
*Melissa officinalis*
Lemon Verbena
*Aloysia triphylla* or
*Aloysia citriodora*

Lion’s Tail / Lion’s Ear
*Leonotis leonaurous*

Madder
*Rubia tinctoria*

Marjoram
*Origanum majorana*

Milk Thistle
*Silybum marianum*

Mint
*Mentha spp.*
Mint
Moroccan Mint
Apple Mint variegated

Nasturtium
*Tropaeolum majus*

Onion & Shallot
*Allium cepa*

Onion & Shallot
*Allium cepa*

Oregano
*Origanum spp.*

Oreganos

Egyptian Walking Onion

Dittany of Crete
*Origanum dictamnus*

Wiry Oregano
*Origanum rotundifolium x dictamnus*

Syrian Oregano
*Origanum maru* or *O. syriaca*
Oregano-Mexican Bush
Lippia graveolens

Parsley
Petroselinum crispum

Poppy-Breadseed
Papaver somniferum

Poppy-California & Mexican Gold
Eschscholzia californica

Rosemary
Rosemary officinalis

Sage-Culinary
Salvia officinalis

Berggarten Sage
Sage-Culinary

- Variegated Sage
- Purple Sage
- Sage Blooms

Sage-Mexican Bush

_Salvia leucantha_

Sage-Pineapple

_Salvia elegans_

Scented Geranium

_Pelargonium spp._

Sorrel

_Rumex acetosa_

Statice-Sea Lavender

- _Statice caroliniana_ or
  - _Statice limonium_
Stevia
Stevia rebaudiana

Tarragon-French
Artemisia dracunculus var. sativa

Tarragon-Mexican
Tagetes lucida

Thyme
Thymus spp.

Thyme-Conehead
Coriothymus capitalus

Viola / Pansy / Sweet Violet
Viola spp.
**Winter Savory**  
*Satureja montana*

**Yarrow**  
*Achillea spp.*

**Yerba Mansa – “Swamp Root”**  
*Anemopsis californica*

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**Spring Tasks for Established Herb Plants**

- Last Recorded Frost Date in Phoenix: April 4th (1945)
- Average Last Frost Date: February 7th
- Bring them out from under cover (but keep watching those weather forecasts!)

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**Spring Tasks for Established Herb Plants**

- Prune off dead branches
- Add compost/mulch to your garden
- Some herbs benefit from light fertilizing

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**Prepare to Say Goodbye to a Few Herb Friends**

- Many herbs that thrive in our mild winters will bolt and die as soon as temps approach 100 degrees
Arugula - “Rocket"
Eruca vesicaria subsp. Sativa

Chervil
Anthriscus cerefolium

Cilantro/Coriander
Coriandrum sativum

Dill (Dill Weed)
Anethum graveolens

Flax-Scarlet
Linum grandiflorum

Milk Thistle
Silybum marianum

Photo Courtesy of www.johnnyseeds.com

Photo Courtesy of www.nwcb.wa.gov
Nasturtium  
*Tropaeolum majus*

Parsley  
*Petroselinum crispum*

What You Can Propagate in Spring

• Spring is our “second” planting/propagating season. Most herb plants are planted in Fall.
• This is not an exhaustive list!
Basil
*Ocimum basilicum*

Basil - many varieties & flavors
- Magical Michael
- Mrs. Burns' Lemon
- African Variegated

Black-eyed Susan
*Rudbeckia hirta*

Chili/Chile Peppers
*Capsicum spp.*

Ginger Root
*Zingiber officinale*

Grass-Citronella
*Cymbopogon nardus*
Grass-Lemon
*Cymbopogon citratus*

Grass-Lemon

Grass-Lemon

Grass-Rose Scented
*Cymbopogon martini motia*

Grass-Vetiver
*Vetivera zizanoides*

Oregano-Cuban
*Plectranthus amboinicus*
Passion Vine
Passiflora incarnata

Sesame
Sesamum indicum

Sweet Pea
Lathyrus odoratus

Sunflower
Helianthus annus

What Did We Learn?
- Hundreds of herbs can easily be grown in the Low Desert landscape & garden
- Our seasons are different
- Our soils are “interesting”
- Our waters are salty
- Plant herbs in the right season & the right location for a successful garden!

Questions??