Harvesting and Processing Aromatic and Medicinal Plants

Processes for the Home Gardener
Objectives

**Introduce**
Briefly introduce the what, when, why, how and where of herbs for your garden

**Review**
Review harvesting techniques and post harvest handling

**Survey**
Survey, Taste and Discuss some of the many products that you can make from your herbal harvests!
Why do we want to grow and use Aromatic & Medicinal Plants

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<tr>
<th>Aromatic Uses</th>
<th>Medicinal Effects</th>
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<tbody>
<tr>
<td>• Perfume</td>
<td>• Antianxiety</td>
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<td>• Medicine</td>
<td>• Antidepressant</td>
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<td>• Preservation</td>
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<td>• Taste</td>
<td>• Antimicrobial</td>
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<td>• Sedative</td>
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<td>• Hormone</td>
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<td>• Modulating</td>
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<td>• Many more!</td>
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Choosing your plants

Consider your Site

– What do plants need
  – Moisture – Soil type, Drainage, Irrigation
  – Light – Full Sun, Partial Shade, Shade
  – Air Flow & Micro Climates
  – Permaculture Principles (Mixed layers, Perennial establishment, Nutrition Cycling)
What gets planted Where

Site Conditions

- Full Sun – High & Dry
  - Most plants will fall into this category
    lavender, rosemary, lemongrass, lemon verbena, bergamot, White Sage
- Full Sun – moist
  - this is most of our farm – Heavy & wet
    Anise Hyssop, Basil, Chamomile, Cilantro, Dill, Rose Geranium, Hops, Mints, Tarragon, Yarrow
- Part Shade
  - Ginger, Turmeric, Elder Flower, Linden
Look outside the box

Aromatic Wild Plants

- Get Out in the Wild – Go for a hike – Wildcraft (Be ethical)
  - Sassafras Leaf
  - Linden & Elder- Flower
  - Spice Bush – Leaf & Fruit
  - Goldenrod – Flower
  - Sweet Gum – Leaf & Fruit
  - Juniper – Berry
  - Pine – Needles & Resin
Calendar Year: January, February, March
# Plant Propagation

## Starting from Seed

## Starting from Plants
- Root Division
- Herbaceous Cuttings
- Woody Cuttings
Greenhouse and Seeding
Starting from plants

Root Division

- Monarda, Peppermint, Spearmint, Feverfew, Yarrow

- WHY
  - do not germinate true to seed, keep primary plant healthier, expanding the number of plants you have, faster way to get bigger plants, clones of mother plant to get exact species of something you really like

- HOW
  - Dig up mat of plant (root ball) cut into pieces
Starting from plants

Herbaceous Cuttings

- Lemon Verbena, Rose Geranium, African Blue Basil, Pineapple Sage, Lavender, Rosemary

- WHY
  - Seeds can take too long, some may difficult to start from seed, do not germinate true to seed, poor germination (less than 50%)

- HOW
  - Purchased from Plugs
  - Take cuttings from your own plants
Starting from plants

**Woody Cuttings**
- Elder Berry, willow

- **WHY**
  - To multiply your woody plant orchard exponentially, maintain varietal strains

- **HOW**
  - Take cuttings from your own plants in late winter
  - Cut branch into approx. 6-8 inch sticks – need two nodes
  - Scarify lower 1 inch beneath 1st set of leaf nodes
  - Plant scarified area and 1st leaf nodes below soil level & remaining nodes above soil level
Calendar Year – May - August
Harvesting, Processing, & Using the Bounty

Tools for Harvesting Aromatic Plants

- Knife
- Snippers
- Sickle
- Chamomile Rake
- Bins/Baskets
- Wheel Barrow
- Digging Fork/Shovel
Harvesting & Post Harvest of Aromatic Plants

- Harvest after dew has dried
- Harvest before hottest part of the day
- Cool plants quickly after harvest
- Wash if necessary, dirt splash, etc.
- Air dry
- Inspect for unwanted plant material
  
  (bugs, weeds)
Calendar Year: Early Summer - Early Fall
Harvesting, Processing, & Using the Bounty

**FRESH**

- Aromatic plants wonderful as cold infusions
- Pesto, salad dressings
- Great reference: *Foraging and Feasting* by Dina Falconi
- Lemon Balm, Mint, Chamomile and Culinary herbs
Harvesting, Processing, & Using the Bounty

FREEZING

- Freezing – closest to fresh
- Elderberries
- Hawthorne Berries
- Ginger
- Jewelweed Ice Cubes
- Basil as Pesto
Harvesting, Processing, & Using the Bounty

DRYING

- Drying – teas, vinegars & oils – no/low moisture to minimize bacterial growth (goal: less than 12%)
- Check for dryness by snapping stems, flowers, breaking pieces of root
- Almost all herbs
Building your Apothecary

TINCTURES

- Tincture – Preserve herbal constituents in convenient, concentrated, shelf stable form
- Great for herbs best preserved fresh or low dose botanicals
- Typically made with Alcohol and/or Glycerine
- Great way to take “bad tasting” herbs or herbs that have constituents that don’t extract well into water
Building your Apothecary

SYRUP and HONEY INFUSIONS

– Syrup – Non-Alcoholic preservation – flavorful, sweetened (children)
– Blend dried herbs with honey for shelf stability
– Blend fresh herbs with honey, use quickly
Building your Apothecary

INFUSED OILS

- Oils – high resin plants, good for topical, massage, etc.
- Use dried herbs with exception of a few (St Johns Wort, Jewelweed)
- Not for internal use
- Use as a base for creams and lotions or use alone.
Building your Apothecary

DISTILLATION

Hydrosols & Essential Oils

– Distillation – Capture Volatile compounds into shelf stable H2O based product
– Steam is used as the solvent with which to extract aromatic compounds
– Essential oils bond to the water molecules and what is left float to surface of water
– Remaining condensate is “aromatized” water
– Shelf life 12-24 months for Hydrosol, years for EO
Label your products

- Plant Genus and species
- Date of harvest
- Location of harvest
- Weight/Volume
- Some people note use on bottle for medicinal herbs
Storage

- Use amber bottles
- Freeze dried herbs if space available
- Keep free of dust
- Process and jar dried herbs asap
- Store dried herbs, tinctures and oils in dry, dark, cool area
- Hydrosols are stored in refrigeration
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