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An Herbal Cultivation Guide

From Northbest Natural Products and available at LearningHerbs.com

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About this Guide:



When I first started herb gardening, I came across this incredible resource called the Herbal Cultivation Guide. It is the chart that is shown on the cover of this eBook. It became my favorite gardening resource.

After starting LearningHerbs.com I really wanted to make this poster available again. After much effort, I finally found the company that held the rights to this chart. Saul at Northbest on Vashon Island, WA was generous enough to let me share the information on a web site.

I soon launched <u>www.Growing-an-herb-garden.com</u> which features much of the information in this eBook. In fact, you might find the web site to be a handy way to navigate this information. However, the site

does not contain as much information as this book.

The BEST part was now I could sell the Herbal Cultivation Guide on my web site! So, I am happy to announce that ALL the information in this eBook is available on this attractive wall chart at <u>www.LearningHerbs.com</u>! You can hang it in your potting shed or up in any room in your house.

I hope you find this information as handy as I do. It is simple and to the point. It is an excellent reference to go along with a more detailed gardening book or class.

I also wanted to mention that this information is © Northbest Natural Products (<u>www.northbest.com</u>) and **NOT** the property of LearningHerbs.com. Please use this information respectfully and do not reprint it without the permission of Northbest. Charts are available wholesale through their web site or retail on <u>www.LearningHerbs.com</u>. In fact, we are the only people on the web who sell them retail.

Happy Gardening!

John Gallagher, CCH LearningHerbs.com FamilyHerbalRemedies.com Growing-an-herb-garden.com

What follows are some close up shots of the Guide.....

COMMON NAME - TYPE	PART USED	DESCRIPTION	REQUIREM
ANGELICA - PERENNIAL TREATED AS A BIENNIAL ANGELICA ARCHANGELICA (UMBELLIFERAE)	ROOTS, STEMS, (C) LEAVES, SEEDS (FR)	5'-8' TALL , 3' SPREAD; MATURE FLOWERS IN 2 YEARS, SETS YELLOW FLOWERS IN EARLY MAY; SEED BY JULY, FERN-LIKE LEANES	RICH, MOIST, LIG
ANISE - MINUAL PIMPINELLA ANISUM (UMBELLIFERAE)	SEEDS (FR) (C)	18-24"; NUMEROUS SMALL WHITE SLOWERS APPEAR IN LATE SUMMER FOLLOWED BY BROWN SEED.	DRY, LIGHT, WEL MODERATELY RI- LOCATION.
BASIL - ANNUAL OCIMUM BASILICUM (LABIATAE)	LEAVES (FR) (C)	1-2' x 6"-8"; TRIANGULAR LEAVES	LIGHT, RICH, WEI SOIL ; FULL SUN, V
BERGAMOT OR BEE BALM PERENNIAL MONARDA DIDYMA (LABIATAE)	LEAVES (FR)	29" PLUS & 12" PLUS . PLANT FORMS CLUMPS ; RED . PURPLE FLOWERS IN MID-SUMMER.	RICH, MOIST, WEL SLIGHTLY ACID SC PARTIAL SHADE
BORAGE - ANNUAL BORAGINACEAE)	LEAVES, FLOWERS	2' x 16" SPREAD. BUE, PINK + WHITE FLOWERS IN MIDSUMMER.	MEDIUM-RICH, SOIL; FULL SUN
CALENDULA - ANNUAL CALENDULA OFFICINALIS (COMPOSITAE)	FLOWERS (FR.) (C.)	18"- 24" X 9"-12"; BRIGHT ORANGE + YELLOW FLOWERS	LIGHT, RICH S
CARAWAY - BIENNIAL CARUM CARVI (UMBELLIFERAE)	LEAVES, SEEDS (C)	8-15" WITH FEATHERY LEAVES, 2' FLOWER STALKS, FLOWERS ZND YEAR MIDSUMMER	NEUTRAL, WEL
CATNIP - PERENNIAL NEPETA CATARIA (LADIATAE)	LEAVES, BUDDING FLOWERS (FR) (NF)	2'-3' × 16"; PALE LAVENDAR OR PINK. FLOWERS. BLOOMS JULY - SEPTEMBER	PARTIAL SHADE
GERMAN CHAMOMILE-ANNUAL MATRICARIA CHAMOMILLA (COMPOSITAE)	FLOWER (FR)	2'-3'; WHITE -YELLOW DAISY FLOWERS	DRY, SANDY SO
ROMAN CHAMOMILE-PERENNIAL ANTHEMIS NOBILIS (COMPOSITAE)	FLOWERS (FR)	6"14" x 4"-6", WHITE-YELLOW DAISY FLOWER BLOOMS MID SUMMER - FALL, 2ND YEAR	MEDIUM RICH
CHERVIL - ANNUAL ANTHRISCUS CEREIFOLIUM (UMBELLIFERAE)	LEAVES (C)	16"X 12", WHITE FLOWERS IN SUMMER PALE GREEN, DELICATE LEAVES	MEDIUM RICH, V SOIL ; SHADE - F GROWS BEST IN
CHICORY - PERENNIAL CICHORIUM INTYBUS (COMPOSITAE)	ROOTS + LEAVES	21-31 K 22"; GEAR BLUE FLOWERS IN SUMMER OF 2ND SEASON'S GROWTH	DRY, LIGHT, SAN
CLARY SAGE - BIENNIAL SALVIA SCLAREA (LABIATAE)	LEAVES, FLOWERS (PS) SEED (FR)	3'-4' x 12"; TALL MAUVA -BLUE FLOWERS	DRY, WELL-DRA SUN, TOLE RATES
BLACK COHOSH - PERENNIAL	ROOTSTOCK, RHIZOME	3'-9' x 3' ; YELLOW-WHITE FLOWERS,	RICH, LOAMY S

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Description
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Part Supplication
Part Su Control Mare . They EXTRA DETAILS CURT HARVESTING 10 10 21-3"s. In ", once underland of non, model, Rich Mel, For Sint, March Martin IS Socie, Star -----



STARTING PLANTS FROM SEED

STORAGE OF SEEDS: STORE SEEDS IN GLASS JARS OR METAL CANS. MOISTURE, LIGHT, HEAT AND OKIGEN GREATLY IMPAIR VIABILITY. KEEP SEEDS IN THE DARK, A RELATIVE HUMIOITY OF 50-60% AND TEMPERATURES BETWEEN 32° AND 50° F ARE PREFERRED, FOR LONG TERM STORAGE, BETWEEN 0° AND 32° F. DO NOT THAW UNTIL RIGHT BEFORE PLANTING. IF KEPT IN A FREEZER RACE A CLOTH OR PAPER BAG OF DRY MILE POWDER IN THE CON-TAINER TO ABSORD EXTRA MOISTURE. REPLACE IT EVERY FEW MONTHS.

E

DEFINITIONS OF SEEDS:

DIE. 2) BIENNIALS: PLANTS THAT GROW 2 YEARS, SET THEIR SEED IN THE 2ND FALL AND THEN DIE. 3) PERENNIALS: PLANTS THAT GROW FROM 1 YEAR TO THE NEXT WITHOUT FURTHER REPLANTING.

I) LIGHT TREATMENT : BARELY PAT SEEDS ONTO THE SOIL SURFACE

WITHOUT BURYING. 2) COLD TREATMENT: PLACE SEEDS IN A PLASTIC BAG WITH PLANTING MEDIUM (SEE SECTION F) OR PLACE IN THE REFRIGERATOR AT 40° F FOR 3-4 WEEKS, REMOVE AND PLANT IMMEDIATELY, PLANTING OUTDOORS IN THE FALL OR SPRING WHILE STILL COLD ALSO WORKS. 5) STRATIFYING: THE HARD SEED COAT OF PERENNIAL SEEDS MUST 5) STRATIFYING: THE HARD SEED COAT OF PERENNIAL SEEDS MUST. S) STRATIFIENDS: THE HARD SEED COAT OF PERENNIAL SEEDS HUST BE FROZEN AND RE-FROZEN AT LEAST 3 TIMES BEFORE THE COAT CAN EASILY BREAK AND GERMINATE. PLACE SEED PACKETS IN A BAG OR JAR, THEN IN A FREEZER. REMOVE AND THAW AFTER 12 HOURS, THEN REPEAT THE PROCESS. IF YOU LIVE WHERE THE TEMPERATURES DROP BELOW FREEZING AT NIGHT AND RISE DURING THE DRY, PLACE SEEDS OUTDOORS IN A SAFE SPOT (FROM ANIMAIS AND BIRDS) FOR A FEW DAYS. PLANT STRATIFIED SEED IMMEDIATELY.

NOTE ON ANNUAL HERB SEEDS: MOST ANNUAL HERB SEEDS GERMINATE EASILY. SOAKING IN WATER OVER-NIGHT BEFORE PLANTING HASTENS GERMINATION. PLANT OUTSIDE APER FROST IN PERMANENT LOCATION. SOME ANNUALS (OR SIEN NIALS) FROST IN PERMANENT LOCATION. SOME ANNUALS (OR SIENNIALS) SUCH AS ANISE, CARAWAY, CHERVIL, CORIANDER, CUMIN, DILL, FENNEL AND PARSLEY DO NOT ALWAYS TRANSPLANT WELL. PLANT IN A WELL PREPARED BED, WITH LOOSE SOIL AND GOOD DRAINAGE, AT A DEPTH NO MORE THAN '4" DEEP. KEEP THE TOP '2"-1" OF SOIL CONSTANTLY MOIST DURING GERMINATION. MARK THE ROWS CAREFULLY UNTIL YOU ARE YERY FAMILIAR WITH SEEDUNG APPEARANCE AS THEY GRON, THIN SO THEY HAVE AMPLE ROOM. LET SOIL DRY OUT BETWEEN WATERINGS BUT AVOID LETTING SEEDLINGS WILT. TOO MUCH FERTULZER PROMOTES LARGE, WEAK GROWTH, LOW IN ESSENTIAL OILS. ESSENTIAL OILS.

PLANTING ANNUALS IN PEAT POTS OR CARDBOARD WILL PREVENT DISTURBANCE TO ROOT SYSTEMS IN TRANSPLANTING. FOR YEAR-TO-YEAR CAREFREE ANNUAL PRODUCTION, ESTABLISH A WELL-SPADED, FHE-TEXTURED SEEDBED AND ALLOW THE PLANTS TO MATURE TO SEED IN THAT LOCA-TION RAKE THE SEEDS INTO THE SOIL WHERE THEY DROP FROM THE PLANT, NEXT SPRING YOUR BED WILL BE FULL OF VOLUNTEERS. THESE ARE THE HARDIEST ANNUALS YOU CAN GROW.

THESE TINN SEEDS ARE BEST PLANTED IN FLATS INDOORS OR IN WELL SIFTED HOT BEDS. USE STERILIZED SOIL TO AVOID WEEDS. SOME PERENNIAL HERB SEEDS TAKE 4-8 WEEKS TO GERMINATE.

There lots of important information on growing herbs listed at the end of this file.

This key is important for using this guide...

Key Notes

- (FR) Folk remedy (medicinal § tea)(C) Culinary(PS) Pot pourri § sachet
- (Co) Cosmetic
- (WF) Wild forage
- (A) Arrangements

All temperatures are given in Fahrenheit.

This guide contains pages on the following herbs PLUS 17 MORE!

Angelica	Clary sage
Anise	Black Cohosh
Basil	Comfrey
Bergamot or bee balm	Coriander
Borage	Cumin
Calendula	Dandelion
Caraway	Dill
Catnip	Echinacea
German Chamomile	Blue elder
Roman Chamomile	Elecampane
Chervil	Fennel
Chicory	Feverfew

Garlic	Parsley
Hops	Pennyroyal (American)
Horehound	Plantain
Horseradish	Rosemary
Houseleek	Rue
Hyssop	Sage
Lavender (English)	Self heal
Lemon balm	French sorrel
Lobelia	Southernwood
Lovage	Summer savory
Sweet marjoram	Winter savory
Motherwort	Tarragon (French)
Mugwort	Valerian
Mullein	Winter Thyme
Nettles	Wormwood
Oregano	Yarrow
Pansy	

Angelica – Perennial treated as a biennial. Angelica Archangelica (Umbelliferae)

Part Used

Roots, stems, (C), leaves, seeds (Fr)

Description

5'-8' tall, 3' spread; mature flowers in 2 years. Sets early flowers in early May; seed by July. Fern-like leaves

Cultural Requirements

Rich, moist, light, well-drained soil; partial-full shade.

Cultivation

Seed needs light + cold treatment. Indoor starting best, germ. In 21-28 days at 70° F. germ. easily if self-sown. Space young plants 18" apart, mature plants $2\frac{1}{2} - 3'$ apart. Mature plants cannot be transplanted. Mulch or cultivate frequently.

Propagation

Ripe, <u>fresh</u> seed; root division; 2nd year off-shoots cut from stem.

Harvesting

Leaves anytime; seeds as they turn from green to yellow cut stems in early summer; dig roots of 1^{st} year plants in fall.

Extra Details

Seeds lose viability when stored. Biennial when self-sown; perennial if pruned before seed. Cure seed in sun.

Anise – Annual Pimpinella Anisum (Umbelliferae)

Part Used

Seeds (Fr) (C)

Description

18" – 24"; numerous small white flowers appear in late summer followed by brown seed.

Cultural Requirements

Dry, light, well-drained soil, moderately rich; sunny, warm location.

Cultivation

Matures in 4 months. Start indoors in short-season areas 6 weeks before last frost. Germ. 7-14 days at 70° F direct seed if possible. Space 1'.

Propagation

Self sown; seed

Harvesting

When seeds turn from green to gray-brown

Extra Details

Basil – Annual Ocimum Basilicum (Labiatae)

Part Used

Leaves (Fr) (C)

Description

1'-2' x 6"-8"; triangular leaves

Cultural Requirements

Light, rich, well-drained, moist soil; full sun, warm location

Cultivation

Germ. easily 4-10 days at 70[°] F. direct seed or transplant, mid-spring after last frost. Space 12"

Propagation

Seed

Harvesting

Before plant flowers. Several cuttings of top 3" - 4" per season.

Extra Details

Frost tender

Bergamot or Bee Balm – Perennial Monarda Didyma (Labiatae)

Part Used

Leaves (Fr)

Description

28" plus x 12" plus. Plant forms clumps; red-purple flowers in mid-summer.

Cultural Requirements

Rich, moist, well-drained, slightly acid soil; full sun – partial shade.

Cultivation

Seed in early spring. Germ. in 20 days at $60^{\circ} - 70^{\circ}$ F. plants establish in year. Divide roots every three years. Shallow spreading roots; hand weed only. Space plants at least 2' apart.

Propagation

Plant division in spring or fall; slips; seed

Harvesting

Before flowering + in fall after flowering. Taste will differ.

Extra Details

Seed viability falls after 2 years; excellent bee plant; hardy

Borage – annual Borago Officinalis (Boraginaceae)

Part Used

Leaves, flowers (C) (Fr)

Description

2' x 16" spread. Blue, pink white flowers in midsummer.

Cultural Requirements

Medium-rich, well-drained soil; full sun

Cultivation

Direct seed after last frost. Self-sows readily. Germ. 7-14 days. Thin plants 2' apart. Does not transplant well.

Propagation

Seed

Harvesting

Leaves all summer. Dry leaves flowers with artificial heat.

Extra Details

Flowers attract bees.

Calendula – annual Calendula Officinalis (Compositae)

Part Used

Flowers (Fr) (C)

Description

18'-24" x 9"-12"; bright orange + yellow flowers

Cultural Requirements

Light, rich soil; full sun.

Cultivation

Grows easily directly sown. Germ. 14 days at 70° F. self-sows cut flowers to prolong blooming. Needs minimum care.

Propagation

Fresh seed. Viability drops after 1st year.

Harvesting

Flowers as soon as they open; slow drying, turn often.

Extra Details

Attracts bees, deters insect pests; hardy to 25⁰

Caraway – biennial Carum Carvi (Umbelliferrae)

Part Used

Leaves, seeds (C)

Description

8 - 15" with feathery leaves, 2' flower stalks, flowers 2^{nd} year midsummer

Cultural Requirements

Neutral, well-drained soil; full sun

Cultivation

Direct seed in early spring or fall; germ. 10-14 days at $67-70^{\circ}$ F. Early grow is slow, keep well-weeded

Propagation

Seed

Harvesting

When seeds turn brown, but before heads shatter

Extra Details

Hardy to -30⁰ F

Catnip – perennial Nepeta Cataria (Labiatae)

Part Used

Leaves, budding flowers (Fr) (Wf)

Description

2' – 3' x 16"; pale lavender or pink flowers. Blooms July-September

Cultural Requirements

Moist, rich soil; full sun - partial shade

Cultivation

Direct seed outdoors in early spring or fall. Germ. 7-10 days at 60° F. thin to 12", rows 18".

Propagation

Seed self-sows; cuttings; plant division.

Harvesting

When flowers start to open

Extra Details

Hardy to -30° F

German Chamomile – annual Matricaria Chamomilla (Compositae)

Part Used

Flower (Fr)

Description

2'-3'; white-yellow daisy flowers

Cultural Requirements

Dry, sandy soil; full sun

Cultivation

Seed needs light treatment, germ. 60° F in 14-21 days. Best started indoors; grows slowly. Transplant 2" tall to 18" apart

Propagation

Self-sows easily

Harvesting

Pick flowers continuously

Extra Details

Roman Chamomile – perennial Anthemis Nobilis (Compositae)

Part Used

Flowers (Fr)

Description

6"-14" x 4"-6", white-yellow daisy flower blooms midsummer – fall 2^{nd} year

Cultural Requirements

Medium rich, sandy soil; full sun

Cultivation

See above entry under German Chamomile

Propagation

Seed; plant division layering; slips

Harvesting

Pick flowers continuously

Extra Details

Best when grown in a patch

Chervil – annual Anthriscus Cereifolium (Umberlliferae)

Part Used

Leaves (C)

Description

16" x 12"; white flowers in summer pale green, delicate leaves

Cultural Requirements

Medium rich, well-drained, light soil; shade - partial shade, grows best in cool weather

Cultivation

Seed needs light treatment; germ. 10-14 days at 600-700 F direct seed. Thin to 6" apart. Sow at 3 week intervals for continued harvest. Mulch to keep soil cool.

Propagation

Self-sows

Harvesting

Leaves before flowering

Extra Details

Seed remains viable for three years.

Chicory – Perennial Chicorium Intybus (Compositae)

Part Used

Roots + leaves (Fr) (Wf)

Description

2'-3' x 22"; clear blue flowers in summer of 2nd season's growth

Cultural Requirements

Dry, light, sandy soil; full sun

Cultivation

Sow outdoors mid-spring to late summer. Germ. $50^{0} - 60^{0}$ F

Propagation

Divide runners in spring + fall; seed

Harvesting

Roots in fall, leaves in summer

Extra Details

Hardy

Clary Sage – biennial Salva Sclarea (Labiatae)

Part Used

Leaves, flowers (Ps) seed (Fr)

Description

3'-4' x 12"; tall mauve-blue flowers in summer 2nd year

Cultural Requirements

Dry, well-drained soil; full sun, tolerates some shade

Cultivation

Sow in spring, germ. best at 65° F. Thin to 1' each way.

Propagation

Division in spring, reseeds in fall

Harvesting

Leaves in summer, flowers at peak, seeds brown-black

Extra Details

Volatile oil used as fixative in perfumes.

Black Cohosh – perennial Cimicifuga Racemosa (Ranunculaceae)

Part Used

Rootstock, rhizome (Wf) (Fr)

Description

3'-9' x 3'; yellow-white flowers, May - August

Cultural Requirements

Rich, loamy soil; full sun

Cultivation

Wild, open land

Propagation

Seed in spring, division sp. + fall

Harvesting

Roots in fall after leaves die + fruit appears

Extra Details

Grows wild throughout E. North America

Comfrey – perennial Symphytum Officinale (Boraginaceae)

Part Used

Leaves, roots (Fr) (C) (Co)

Description

Erect 2' - 3', leaves 10", grows from fibrous, fleshy roots.

Cultural Requirements

Moist, alkaline soil; shade - full sun.

Cultivation

Spreads rapidly unless contained. Plant root cuttings 3'' - 6'' deep, 3' apart. Well- rooted compost or manure. Good side-dressing.

Propagation

Root division with eyes or buds.

Harvesting

Cut within 4" of ground just before fl. Roots spring or fall

Extra Details

Hardy to -40° F.

Coriander – annual Coriandrum sativum (Umbelliferae)

Part Used

Seeds, fresh leaves (C)

Description

24" x 12", pink-mauve or white flowers mid-late summer

Cultural Requirements

Fertile, light-average soil; full sun in protected place

Cultivation

Direct seed early spring. $\frac{1}{2}$ " deep, 8"-10" apart. Germ. 7-10 days at 55[°] F. plants may require support. Do not transplant. Germination is usually high.

Propagation

Seed in early spring; self sows

Harvesting

Fresh leaves anytime seeds when light brown

Extra Details

Seeds viable for 5 years do not plant by fennel or anise.

Cumin – annual Cuminum Cyminum (Umbelliferae)

Part Used

Seed (C)

Description

12" x 6", pink-white flowers in summer

Cultural Requirements

Average, well-drained soil; full sun

Cultivation

Start indoors in no. climates. Germ 10-14 days at 700 F. Direct seed after frosts, 16-20 seeds per foot. Do not thin.

Propagation

Seed; needs 4 months to mature

Harvesting

Seed ripens in late fall, when heads begin to turn brown

Extra Details

Plants need support of others. Water well.

Dandelion – perennial Taraxacum Officinale (Compositae)

Part Used

Root (Fr) leaves (C) flowers (Fr) (Wf)

Description

4'' - 8'' leaves; deep tap roots, yellow flowers on 6'' stems

Cultural Requirements

Any soil; full sun – partial shade.

Cultivation

Direct seed sparingly in spring or fall. Pick flowers to encourage leaf growth + prevent spreading.

Propagation

Seed

Harvesting

Leaves in early spring; root in fall, flowers for wine

Extra Details

Mineral rich, hardy

Dill – annual Anethum Graveolens (Umbelliferae)

Part Used

Leaves, seeds (C), (Fr)

Description

8" – 36" x 24"; yellow flowers in mid-summer

Cultural Requirements

Moderately rich, light, well-drained soil; full sun; protect

Cultivation

Seed requires light treatment; germ. 14 days at 60° F. Direct seed early spring. Do not transplant. Stake at 18''. thin to 10''.

Propagation

Direct seed, will self-sow

Harvesting

For leaves, make successive plantings April – mid July

Extra Details

Do not plant near fennel dry seeds in sun

Echinacea – perennial Echinacea Angustifolia (Compositae)

Part Used

Root, rhizome (Fr) (Wf)

Description

3' - 4' tall, purple flowers June - October

Cultural Requirements

Fertile, well-drained soil

Cultivation

Direct seed in spring or fall 18" – 24" apart

Propagation

Plant division sp. or fall; seed

Harvesting

Roots, rhizomes after 1st year

Extra Details

Angustifolia – use fresh or dry; purpurea, fresh

Blue Elder – perennial Sambucus Nigra (Caprifoliaceae)

Part Used

Fresh, dried flower berries, leaves, root, bark (Wf) (Fr)

Description

12' or more unpruned; yellow-white flowers June - July

Cultural Requirements

Rich, moist soil; full – part sun

Cultivation

Transplants easily. Plant 9' apart. Prune late fall or early spring before growth begins. Cut to the grounds in spring; elder will resprout that season.

Propagation

Cutting sept. – March, 2' - 3' long, push 6' - 8' in ground

Harvesting

Berries when deep blue or purple; flowers in full bloom; leaves in summer; roots in fall; inner bark in fall

Extra Details

Quick drying of flower essential. Dry bark in moderate sun; bring in at night.

Elecampane – perennial Inula Helenium (Compositae)

Part Used

Roots (Fr)

Description

 $3' - 6' \times 3'$, bright yellow flowers in mid-summer

Cultural Requirements

Moist, rich, well-drained soil; full sun - partial shade

Cultivation

Sow ripe seed in cold frames or outdoors in spring, germ. 15 days. 12'' - 20'' apart in rows 1' apart. Replace every 3 yr

Propagation

Root division, spring offsets, fall; seed

Harvesting

Root in fall of 2nd year

Extra Details

Fennel – biennial Foeniculum Vulgare (Umbelliferae)

Part Used

Seeds, leaves, roots (C) (Fr)

Description

 $16'' - 48'' \times 24'' - 36''$, yellow flowers in 2^{nd} summer

Cultural Requirements

Mod. Rich, well-drained, calcium rich soil; full sun, protected from wind

Cultivation

Direct seed early spring, germ. 10-14 days. Thin to $6'' - 8'' 1^{st}$ year, transplant to 30'' - 36'' apart, spring of 2^{nd} year. In the north, dig tap roots + 3'' of stem in afll. Set in humid, cool cellar, cold frame, trench. In spring, shorten + replant.

Propagation

Seed only

Harvesting

Seed as they turn from green to light brown

Extra Details

Do not plant near bush beans, caraway, coriander, tomatoes, kohlrabi, or wormwood

Feverfew – perennial Chrysanthemum Parthenium (Compositae)

Part Used

Leaves, flowers (Fr)

Description

2' - 3', wide spread; yellow-white flowers mid-summer – fall of 2^{nd} yr.

Cultural Requirements

Well-drained, fertile, light, well manured soil; full sun-light shade

Cultivation

Direct seed early spring. Seed requires light treatment, germ. 10-15 days 70^{0} F. thin to 12'' with 2' between rows

Propagation

Self-sow, division in sp, heel cuttings

Harvesting

Anytime when mature

Extra Details

Garlic – biennial Allium Satvium (Liliaceae)

Part Used

Bulb, young leaves (C) (Fr)

Description

Leaves 2' high

Cultural Requirements

Rich, moist soil; full sun

Cultivation

Plant individual cloves 4" deep, 6" apart in fall. Weed in early spring, much or water sparingly. Clip seed heads

Propagation

Individual clove

Harvesting

Fresh leaves sparingly in Sp. roots mid-late summer

Extra Details

Helps deter pests hardy to -20° F

Hops – perennial Humulus Lupulus (Moraceae)

Part Used

Female flowers (Fr) (Ps) (C)

Description

Vines 20' - 30' with 1'' - 2'' female fl., 7'' - 8'' male fl. on separate plants

Cultural Requirements

Rich soil; full sun

Cultivation

Plant division in spring, or seed with cold treatment. Slow germination. Slow germination. Vines need support.

Propagation

Seed, plant division.

Harvesting

Female flowers

Extra Details

Horehound – perennial Marrubuim Vulgare (Labiatae)

Part Used

Leaves (Fr)

Description

18" – 24" x 15"; gray-green foliage, white flowers June - September

Cultural Requirements

Average, well-drained soil; full sun - partial shade

Cultivation

Direct seed early spring, germ. 14 – 20 days at 70° F. Space mature plants 12" – 18" apart, flowers 2nd year.

Propagation

Seed, plant division in spring, slips

Harvesting

Cut to 3" above ground when flowers 1st appear

Extra Details

Flowers attract bees

Horseradish – perennial Armoracia Rusticana (Cruciferae)

Part Used

Root (C) (Fr)

Description

Coarse bright green 1' - 2' leaves; long branching, cylindrical roots

Cultural Requirements

Wet clay, well dug, manured soil; full sun

Cultivation

Spreads rapidly; plant away from cultivated garden. 6'' - 7'' root divisions 12'' - 15'' deept, 18'' apart in <u>early</u> spring

Propagation

Root division

Harvesting

Roots in fall

Extra Details

Hardy

Houseleek – perennial Sempervivium Tectorum (Crassulaceae)

Part Used

Fresh leaves (Fr)

Description

2'' - 4'' rosettes on 3'' - 12'' stems; succulent gray-green leaves, colored fl.

Cultural Requirements

Dry, average soil; rocky outcroppings; full sun

Cultivation

Start indoors, germ. 20 days at 80° F. Spreads rapidly. Does well in rockeries + pots. Drought resistant.

Propagation

Seed + plant division.

Harvesting

Fresh leaves as needed.

Extra Details

Hyssop – perennial Hyssopus Officinalis (Labiatae)

Part Used

Leaves, flowers (Fr), (C), (A)

Description

3'; long, thin shiny green leaves. Blue, pink, white fl. in midsummer

Cultural Requirements

Well-drained, slightly alkaline, med. rich soil; full sun – p. shade

Cultivation

Start indoors, slow growing. Germ. 7-10 days at 70⁰ F. Transplant to 2' spacing

Propagation

Seed, 2nd yr. pl. division, layering

Harvesting

When flowering

Extra Details

Companion to grapes + cabbage; very hardy

English Lavender – perennial Lavendula Vera (Labiatae)

Part Used

Flower buds (Fr) (Co) (Ps) (A)

Description

36" x 24"; bushy, purple gray flowers July – September

Cultural Requirements

Light, sandy, non-acid soil, good drainage, full sun

Cultivation

Germ. difficult, 20 - 30 days at $50 - 60^{0}$ F. Space to 12'' - 30''. Best started indoors. Grows big in warm areas. Keep pruned

Propagation

Slips with heel layering, seed

Harvesting

Flower buds, just before opening. Keep from fl. 1st year

Extra Details

Lime soil if Ph is above 4 hardy to -20⁰ F if mulched

Lemon Balm – perennial Melissa Officinalis (Labiatae)

Part Used

Leaves (Fr) (Ps)

Description

 $2' - 3' \times 16'' \times 24''$; creamy white flowers mid-summer

Cultural Requirements

Fertile, light soil. Partial shade, tolerates sun. Moist

Cultivation

Light treatment, germ. 7-14 days. Transplant when 4" tall or direct seed in spring. Space 2' apart.

Propagation

Slips, pl. division seed in sp. or fall

Harvesting

Up to 3 cuttings per season before flowering. Cut down to 2"

Extra Details

Mulch to keep clean

Lobelia – annual Lobelia Inflata (Campanulaceae)

Part Used

Leaves (Wf) (Fr)

Description

1' - 2'; brilliant blue flowers, July – October. Yellow-green foliage

Cultural Requirements

Well-drained, average soil; full sun

Cultivation

Sow seeds outdoors after frost danger, indoors for earlier flowering.

Propagation

Seed

Harvesting

In full bloom

Extra Details

Toxic in large doses; grown for beauty

Lovage – perennial Levisticum Officinale (Umbelliferaea)

Part Used

Root, leaves, seeds, young stems (C)

Description

 $3' - 7' \times 3'$; 2' mature leaves, yellow flowers, mid-summer

Cultural Requirements

Fertile, deeply dug moist soil; full sun - partial shade

Cultivation

Long growing season. Start indoors early spring. Germ. 10 days at 60[°] F. Direct seed late summer. Transplant to permanent location in fall or early spring. Space 3' apart

Propagation

Plant division spring or fall, seed

Harvesting

Fresh leaves + stem all season seeds when dark brown roots 2nd year on in fall

Extra Details

Leaves can be dried top dress with compost divide every 4 yrs. in sp.

Sweet Marjoram – annual Marjorana Hortensis (Labiatae)

Part Used

Leaves, flower heads (C)

Description

 $10'' \times 4'' - 6''$; pink flowers in summer

Cultural Requirements

Light, medium reach, dry soil; full sun

Cultivation

Start indoors early spring, germ. 14 days at 60° F. transplant when soil warms, 6'' - 8'' apart. Weed often.

Propagation

Seed, layering keep layers from fl.

Harvesting

As fl. appear mid-summer. Cut to 1", second harvest possible.

Extra Details

Bring layers indoors for extended growth.

Motherwort – perennial Meonurus Cardiaca (Labiatae)

Part Used

Leaves (Fr)

Description

2' - 3', pink-white flowers on toothed spike

Cultural Requirements

Average well-drained soil; full sun

Cultivation

Sow indoors March, set out $12^{\prime\prime}$ apart after frost danger is past. Difficult to eradicate once established

Propagation

Seed, plant division

Harvesting

Just before flowering cut whole plant down to 4".

Extra Details

Excellent bee forage very hardy

Mugwort – perennial Artemisia Vulgaris (Compositae)

Part Used

Leaves + root (Fr)

Description

 $3' - 6' \times 16'' - 20''$; yellow flowers in summer

Cultural Requirements

Moist, fertile soil; full sun

Cultivation

Light treatment. Start indoors, germ. quickly at $55^{\circ} - 60^{\circ}$ F transplant after frost to 2' apart. Once established, will spread rapidly unless cut back.

Propagation

Plant division, sp. or fall, slips seed

Harvesting

Leaves before flowering root in fall

Extra Details

Mullein – biennial Verbascum Thapsus (Scrophulariaceae)

Part Used

Leaves, flowers (Fr) (Wf)

Description

Rosette 12'' - 18'', flower spike to 7'; bright yellow flowers 2^{nd} year

Cultural Requirements

Average soil; full sun

Cultivation

Direct seed early spring; germ. 10 days 70° F. If started indoors transplant before tap root gets too long.

Propagation

See, self-sows readily

Harvesting

Leaves 1st year, flowers 2nd year

Extra Details

Nettles – perennial Urtica Dioica (Labiatae)

Part Used

Leaves (Fr) (Co) (C) (Wf)

Description

2' – 3' x 2'

Cultural Requirements

Moist, rich soil; partial shade

Cultivation

Cool, moist areas, compost or manure side dressings. Contain roots to prevent spread, divide every 2 years.

Propagation

Seed, root + plant division

Harvesting

Pick carefully, it stings. Top throughout season. Cook or dry.

Extra Details

Adds minerals to soil. Hardy to -20^{0} F

Oregano – perennial Origanum Vulgare (Labiatae)

Part Used

Leaves (C) (A)

Description

2', white flowers June - August

Cultural Requirements

Moderately fertile, well-drained soil; full sun

Cultivation

Germ. 14 days $60^{\circ} - 65^{\circ}$ F. Plant out after frost danger 12" apart. Cultivate often.

Propagation

Slips; pl. division sp. or fall; seed

Harvesting

When fl. 1^{st} appear, or fresh any time. Cut down to 1''.

Extra Details

Can be dried in sun

Pansy – perennial Voila Tricolor (Voilaceae)

Part Used

Flowers (Ps) fresh leaves (Fr) (C)

Description

Small scanty leaves; varied colored flowers

Cultural Requirements

Moist, rich soil; partial shade - full sun

Cultivation

Sow indoors or out after frost danger. Germ. 10-20 days 70^{0} F. Cultivate regularly, spread in mound shape

Propagation

Seed, plant division

Harvesting

Blossoms; fresh leaves + blossoms for salads

Extra Details

Hardy

Parsley – biennial Petroselinum Hoetense (Umbelliferae)

Part Used

Leaves (C) (Fr) roots (C) (Fr) seed (Fr)

Description

 $12'' - 20'' \times 8''$ curly or fern-leafed, white flowers in 2^{nd} summer

Cultural Requirements

Rich, deep, well-drained soil; partial shade

Cultivation

Soak seeds 24 hr. before planting in early spring; germ. 2-3 weeks at 70^{0} F. does not transplant well. Thin to 6''

Propagation

Seed

Harvesting

Leaves anytime, roots in fall of 2nd year, seeds when brown

Extra Details

Fern-leafed type hardier weed well, slow grower

American Pennyroyal – perennial Hedeoma Puleogioides (Labiatae)

Part Used

Leaves (Fr) (Wf)

Description

6" – 12", prostrate creeping growth

Cultural Requirements

Damp, humus soil; full sun - partial shade

Cultivation

Slow to germinate but self-sows once established. Creeps by rooting where stem touches ground

Propagation

Seed, rooted cuttings

Harvesting

Low growth and tiny leaves make harvest difficult

Extra Details

Half-hardy

Plantain – perennial Plantago Major (Plantaginaceae)

Part Used

Leeaves (C) (Fr) Roots (Fr) (Wf)

Description

2" – 10" Rosette

Cultural Requirements

Average soil; full sun

Cultivation

Sow seeds outdoors in spring

Propagation

Seed

Harvesting

Young fresh leaves in summer; leaves to dry just before flowering

Extra Details

Rosemary – perennial Rosmarinus Officinalis (Labiatae)

Part Used

Leaves (Fr) (Co) (C)

Description

 $2' - 4' \times 3' - 6'$ evergreen shrub

Cultural Requirements

Light, well-drained, alkaline soil; full sun in sheltered soot

Cultivation

Start indoors in very early spring, low germ. 3 weeks or more at 60° F. transplant after frost danger 3' apart

Propagation

Seed, slips, layering

Harvesting

All summer

Extra Details

Not frost hardy, winter kill at 27[°] F, protect

Rue – perennial Ruta Graveolens (Rutaceae)

Part Used

Leaves (Fr) (A)

Description

2' - 3'; blue-green leaves, yellow-green flowers

Cultural Requirements

Slightly alkaline, moderately rich soil; full sun

Cultivation

Sow indoors in February, transplant out in May 18" apart. Divide at least every 3 years.

Propagation

Seed, slips, plant division

Harvesting

Leaves before flower form. Top dress after 1st cutting

Extra Details

May cause allergic skin reaction. Hardy to -20 F

Sage – perennial Salvia Officinalis (Labiatae)

Part Used

Leaves (Fr) (C)

Description

2' – 3' x 18" – 24"; bushy growth.

Cultural Requirements

Dry, well-drained, non-acid soil; full sun

Cultivation

Sow indoors early or direct seed as weather warms. Germ. 3 weeks at 65° F. thin to 12". Top watering can cause mildew. Cultivation + moisture essential to earthly growth.

Propagation

Seed, cuttings (preferred) crown division

Harvesting

Before flowers form, harvest sparingly 1st yr, to shape plant. 2nd year 2 cuttings of top growth

Extra Details

Replant every 3-4 yrs. Harvest before September hardy to -30° F

Self heal – perennial Prunella Vulgaris (Labiatae)

Part Used

Leaves (Fr)

Description

 $6'' - 12'' \times 4''$; purple flowers on spikes throughout summer

Cultural Requirements

Average, moist oil; full sun - partial shade

Cultivation

Direct seed spring or fall in garden or moist area. New plants will root from creeping stems.

Propagation

Seed, slips

Harvesting

Leaves in mid-summer

Extra Details

Light ground cover, hardy

French sorrel – perennial Rumex Scutatus (Plygonaceae)

Part Used

Leaves (Fr) (C) seed stalks (A)

Description

2' - 3' x 18"; spear-shaped leaves yellow-red flowers in early spring

Cultural Requirements

Moist, rich soil; full sun

Cultivation

Sow seeds in early spring germ. 7-14 days at 60° F. thin or transplant 6" apart. Clip flower stalks for leaf growth

Propagation

Seed, pl. division 2^{nd} year sp. or fall

Harvesting

Fresh leaves throughout summer

Extra Details

Southernwood – perennial Artemisia Abrotanum (Compositae)

Part Used

Leaves (Fr) seeds + flowers (Ps)

Description

2' - 4' x 2' - 3' woody shrub, feathery lemon-scented gray-green foliage

Cultural Requirements

Average, dry soil; full sun

Cultivation

Cuttings root easily. Divide large plants in spring or fall

Propagation

Cuttings, plant division

Harvesting

Cut back non-woody foliage as plant flowers

Extra Details

Hardy to -10^{0} F

Summer Savory – annual Satuerja Hortensis (Labiatae)

Part Used

Leaves (C)

Description

18"; Rose, lilac or white flowers mid-summer on

Cultural Requirements

Sandy, well-drained, fairly rich soil; full sun

Cultivation

Light treatment, germ. 7-14 days at 65^{0} F . best sown indoors 1 month before last frost. Space 9'' - 12''. Keep moist.

Propagation

seed

Harvesting

When plants are 6" high; continue all summer

Extra Details

Winter savory – perennial Satureja Montana (Labiatae)

Part Used

Leaves (C)

Description

 $6'' - 16'' \times 6'' - 16''$; dwarf bush; white, pink, purple flowers 2^{nd} June on.

Cultural Requirements

Sandy, well-drained average soil; full sun

Cultivation

Light treatment, slow germ. 2 weeks or more at 65° F best started indoors. Transplant 16'' - 18'' apart.

Propagation

Seed, slips plant division, layering

Harvesting

Before flowering. Cut back each fall.

Extra Details

Divide at least every 3 years.

French Tarragon Artemisa Dracunculus Perennial

Part Used

Leaves (C)

Description

24"-36" X 16"; glossy, dark green foliage with yellow + black flowers in August

Cultural Requirements

Warm, rich, well-drained soil; full sun, sheltered location

Cultivation

Space plants 18"-20" apart. Divide every 2-3 years to avoid disease. Cut back + mulch in fall. Do not hoe around lateral root system.

Propagation

Plant division in spring or slips

Harvesting

Fresh any time or bulk of harvest when lower leaves turn yellow.

Extra Details

Rarely sets seed.

Valerian – Perennial Valeriana officinalis (Valerianaceae)

Part Used

Roots, rhizomes (FR)

Description

54" X 12"-16"; shiny foliage, pink-white flowers June-September

Cultural Requirements

Rich, loamy moist soil; full sun – partial shade.

Cultivation

Start indoors, hard to germ., best at 68°F. Transplant after frost danger, $1 \frac{1}{2} - 2'$ apart, rows 2'-3' apart. Divide + replant every 4 yrs.

Propagation

Root division in spring or fall

Harvesting

Roots + rhizomes in fall of 2^{nd} year on.

Extra Details

Cut fl. tops for better root growth.

Winter Thyme – perennial Thymus Vulgaris (Labiatae)

Part Used

Leaves + Flowers (C) (FR)

Description

8"-10"; Gray-green leaves, pink or violet flowers May-August

Cultural Requirements

Light, well-drained, slightly alkaline soil; full sun.

Cultivation

Slow growing. Start indoors, germ. 14-20 days at 70° F transplant 8" apart or in small clusters. Weed well.

Propagation

Seed, slips, pl. division, layering.

Harvesting

 1^{st} year sparingly, 2^{nd} yr. tops + flowers as they open.

Extra Details

Divide in 3-4 yrs., good bee forage, hardy - 20°F.

Wormwood – perennial Artemisia Absinthium (Compositae)

Part Used

Leaves, flowers (WF) (FR)

Description

2'-2 1/2'; green-yellow flowers, July-October

Cultural Requirements

Dry, poor soil; full sun

Cultivation

Direct seed in fall or start indoors for spring transplanting. Germ. 5-7 days, space 2' apart. Keep weeds down, prune for compact growth. Repels insects.

Propagation

Seed, cuttings, pl. division.

Harvesting

Upper green portions at flowering in July + August

Extra Details

Segregate from other herbs, makes competitive toxic substance.

Yarrow – perennial Archillea Millefolium (Compositae)

Part Used

Leaves + Flowers. (FR) (A) (WF)

Description

Clumps, feathery gray –green foliage, 2' flower stalks.

Cultural Requirements

Average, dry soil; full sun.

Cultivation

Direct seed in early spring. Needs light treatment. Germ. 12 days at 68°F. Bonemeal promotes growth.

Propagation

Plant division seed.

Harvesting

Cut whole plant as flower opens

Extra Details

Repels insect pests increases volatile oils of nearby herbs.

Starting Plants from Seed

<u>Storage of seeds</u>: Store seeds in glass jars or metal cans. Moisture, light, heat and oxygen greatly impair viability. Keep seeds in the dark. A relative humidity of 50–60% and temperatures between 32° and 50° F are preferred. For long term storage, between 0° and 32° F. Do not thaw until right before planting. If kept in a freezer place a cloth or paper bag of dry milk powder in the container to absorb extra moisture. Replace it every few months.

Definitions of Seeds:

- 1. Annuals: Plants that grow 1 year, go to seed in the fall, then die.
- 2. Biennials: Plants that grow 2 years, set their seed in the 2^{nd} fall and then die.
- 3. Perennials: Plants that grow from 1 year to the next without further replanting.

Treatments of Seeds:

- 1. Light treatment: Barely pat seeds onto the soil surface without burying.
- Cold treatment: Place seeds in a plastic bag with planting medium (see section F) or place in the refrigerator at 40°F for 3-4 weeks. Remove and plant immediately. Planting outdoors in the fall or spring while still cold also works.
- 3. Stratifying: The hard seed coat of perennial seeds must be frozen and refrozen at least 3 times before the coat can easily break and germinate. Place seed packets in a bag or jar, then in a freezer. Remove and thaw after 12 hours, then repeat the process. If you live where the temperatures drop below freezing at night and rise during the day, place seeds outdoors in a safe spot (from animals and birds) for a few days. Plant stratified seed immediately.

<u>Note on Annual Herb Seeds</u>: Most annual herb seeds germinate easily. Soaking in water overnight before planting hastens germination. Plant outside after frost in permanent location. Some annuals (or biennials) such as anise, caraway, chervil, coriander, cumin, dill, fennel and parsley do not always transplant well. Plant in a well prepared bed, with loose soil and good drainage, at a depth no more than $\frac{1}{4}$ deep. Keep the top $\frac{1}{2}$ – 1" of soil constantly moist during germination. Mark the rows carefully until you are <u>very</u> familiar with seedling appearance. As they grow, thin so they have ample room. Let soil dry out between waterings

but avoid letting seedlings wilt. Too much fertilizer promotes large, weak growth, low in essential oils.

Planting annuals in peat pots or cardboard will prevent disturbance to root systems in transplanting. For year-to-year carefree annual production, establish a well-spaded, fine-textured seedbed and allow the plants to mature to seed in that location. Rake the seeds into the soil where they drop from the plant. Next spring your bed will be full of volunteers these are the hardiest annuals you can grow.

<u>Note on Perennial Herb Seeds</u>: These tiny seeds are best planted in flats indoors or in well sifted hot beds. Use sterilized soil to avoid weeds. Some perennial herb seeds take 4-8 weeks to germinate.

Preparing the Planting Medium:

1 part sand, 1 part peat moss and 1 part garden soil is the most common mix. Substitute vermiculite for sand, or well rotted compost or manure for soil. Sift mix very fine and loose. Sterilization eliminates diseases, weeds and viruses and helps control a fungus called "damping off". That is when the stem looks "pinched" at the soil surface, weakens and falls over. There is no cure, only prevention, although a mist of chamomile tea helps control the fungus. Place planting medium in a large tub and bake at 180°F at least 30 minutes. Use this medium for germination time only. Once plants have become established, transplant to a more fertile

soil. Soak re-used flats, pots, trays and utensils in a 10% bleach-in-water solution.

Planting and caring for flats:

Press sifted mix into flat. Make furrows 3 times the depth of seed diameter in rows 2" apart. Sprinkle seed thinly in rows and cover with a <u>thin</u> layer of <u>fine</u> soil or peat moss. Label rows correctly. Water by placing flat in a sink (don't flood it, though!) or, carefully spray the flat with a fine mist. Soak it well. Top watering will displace seeds.

Cover flats with wet newspapers and plastic or glass to avoid moisture loss. Remove occasionally for ventilation to avoid damping off, and remove entirely when the 1st seedlings begin to appear. Over-watering is another cause of damping off. Keep soil moisture constant and flat well ventilated.

Most herbs germinate best at 65° 70°F. Seed viability greenhouse conditions, watering, etc. will affect exact days to germination.

<u>Caring for Seedlings</u>: Give seedlings ample light; turn the flat occasionally and provide a gentle breeze to strengthen them. Water less frequently, but never let them dry out. Thin crowded seedlings quickly by snipping surface, or pull gently with tweezers. When seedlings are $\frac{1}{2}$ " to 1" tall and have developed their second "true" leaves, transplant into the same mix enriched with bonemeal or compost (3lbs. of bonemeal per 100lbs. of mix or approximately $\frac{1}{2}$ t. bonemeal per 4" pot). Avoid rich mixes or fertilizer; at this point a healthy, strong root system is more important to growth than stem height.

Cut between the plants with a clean knife and scoop out individually. Place in another flat 2"-3" apart or in individual pots. Plant root systems straight down. Some plants prefer another transplanting to develop stronger root systems before planting outdoors.

Preparing Plant for Outdoors

Harden off 2 weeks before planting outdoors by setting outside a few hours a day in the shade protected from wind. Gradually increase the time outside. They may be placed in a cold frame, vented during the day. Watch carefully to avoid wilt and frost.

<u>Transplanting Outdoors:</u> Transplant on a cloudy day; sun causes deeper shock. If the weather is consistently sunny, transplant in the evening so seedlings may rest and settle before facing the sun. Cover exposed roots, pour a little water directly into the hole before inserting the plant. Firm the soil and keep moist until seedling is established. If wilting occurs protect from direct sun with newspaper tents, cardboard boxes, or harvest baskets. Follow specific directions for each plant after it has begun to grow.

Propagation

Aside from seed, herbs are propagated by root division, slips (cuttings), layering, or plant divisions.

<u>Root division</u>: Used for plants with tap roots (comfrey), underground runners (mints), or bulbs (garlic) dig the root, runners or bulbs and cut or break into 2"-3" sections and replant. Sections may be replanted without top growth.

<u>Slips:</u> Cuttings taken from growing plants. Take 6" cuttings in late spring or early summer from new growth. Cut diagonally with a clean sharp knife below a joint or node. Some plants need a "heel", pull down on the branch to include a piece of bark on the base. Strip the leaves from the bottom half, and place the cuttings in a jar of water out of direct sunlight. Maintain water level until roots form. Or, insert the cuttings at least 3" deep in a container filled with clean course river sand or a mixture of sand and peat moss, spaced at least 2" apart. Water and place in a semi-shaded spot. Keep well-moistened by fine-mist spraying 4-6 times daily. Roots will <u>begin</u> to develop in about 30 days and have strong root systems in <u>another</u> 30 days. They can be set out in the garden if there are 2-4 weeks before heavy frosts.

Layering: May be the easiest form of propagation; the new plant forms its root system while still being nourished by the parent plant. Bend a supple lower branch to the ground, strip it of leaves where it touches the earth and peg growth node in place with a bent wire, hair pin or fencing nail. For woody stems, make an incision below 1 or 2 nodes and peg in place. Firm 1"-2" of soil over the nodes and keep moist. In the 3-4 weeks roots will form at each covered joint. Once well-rooted, separate the new plant and transplant.

If transplanting outdoors, layer before mid-summer to establish roots before frost. If transplanting indoors, continue to layer until 4-5 weeks before frost. Or leave new plant attached to the parent until spring.

<u>Plant Division</u>: Spring is the best time for plant division, though in mild climates it can also be done in the fall.

Dig or unpot the parent plant and gently shake the soil away. Wash the remaining soil off with a hose or by dipping in water. Gently pull the new outer growth off the main plant. Make sure each section has a piece of the root attached. Re-pot or plant these divisions outdoors. The main section has lost much of its vitality and is usually discarded.

Harvesting and Drying

Harvest on a clear morning after the dew has dried. Harvesting in hot sun reduces essential oil content and fades color.

Harvest foliage herbs when they begin to form flower buds and have the maximum amount of essential oils, flavor and fragrance. If leaves are dusty, lightly rinse and shake excess moisture off.

Flowering herbs are cut immediately after the buds open, before the flower begins to fade. Leave 1/3 of the stem on perennials, 4-5'' on annuals in time allows for 2^{nd} growth.

Tie herbs loosely in bunches and hang upside down, or lay out on sheets or screens in a <u>thin</u> layer. <u>Label herbs carefully</u>. Open the insides of bunches or stir the screens occasionally to prevent molding.

Harvest seeds when they fall from a gently tapped stalk. Avoid seed loss by bending the head into a bag before cutting. Lay the heads between 2 sheets of clean cloth and gently beat with a flail or light flat stick to remove seeds and loosen the chaff. Sift the seeds through a fine mesh screen. The remaining chaff can be removed by gently tossing the seeds over cloth in a light breeze (winnowing) or pouring them from container to container. Dry thoroughly before storing. When harvesting the bark, make narrow cuts vertically in the shrub/tree. Do not girdle with horizontal cuts.

Roots are carefully dug and washed thoroughly before drying. Large roots may be sliced into pieces. Roots can be dried at slightly higher temperatures than leaves or flowers such as very low oven heat. Roots usually take 3-6 weeks to dry and will snap when bent.

Dry herbs out of direct sunlight with good air circulation. If drying outdoors, recover each night before dew falls. <u>Quick</u> drying retains most of the oils. At 75° - 85°F, with a good air flow and low humidity, most herbs will dry in 7-10 days. A good drying place has no direct light, good air circulation, warm temperatures and low moisture. Try upstairs, garages, attics and sheds. Oils can evaporate at 100°F.

If the weather dampens and over drying is necessary, lay the herbs on a baking sheet and keep the over as low as possible with the door left open.

Drying is complete when the leaves or plant parts are crackling dry.

Processing and Storing

When herbs are completely dry, strip leaves and flowers from stems or gently roll and squeeze in paper bags. Remove as much stem and foreign material as possible. Seasoning herbs should be crushed into small particles. Tea herbs do well left whole.

Light and oxygen affect potency, so store herbs in air-tight jars. Clear jars should be kept out of the light. Most leaf and flower herbs lose strength after 1-2 years. Roots and barks can be stored at least 3 years.

Special Notes

The mints cross pollinate easily and true seed is rarely obtained. Keep them from flowering as the seed (which will self-sow) will be a cross. It is best to purchase certified root stock if you wish to grow mints.

Many herbs in the same family (particularly the mint family which includes hyssop, thyme, oregano, sage, savory, marjoram, etc.) will also cross pollinate if allowed to flower at the same time. This will not affect the parent plant, but only seedlings.

Key Notes

- (FR) Folk remedy (medicinal § tea)
- (C) Culinary
- (PS) Pot pourri § sachet
- (Co) Cosmetic
- (WF) Wild forage
- (A) Arrangements

All temperatures are given in Fahrenheit.

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