Vines cont.

Clematis ligusticifolia. Western Clematis DV to 20'. iPNW. Zone 3. Collected Okanogan. Fast growing, dense vine useful for fedges (Hedgerows created by growing vines on fences). Indians used bark to make twine, rope, etc and made a shampoo by rubbing leaves together. Produces a great deal of nectar & pollen over a long period of summer. #1 or #2 for 60 days. $.75/pkt

Clematis tangutica. Golden Clematis DV to 15'. Mongolia. Zone 5. Collected iBC. A strong-growing climber with handsome, silvery-plumed seed heads. One of the best yellow clematis. Lantern-shaped, bright yellow, nodding flowers 2-4" across are borne in great profusion from July to fall. Nectar/pollen. #1 Or sow in pots or shallow pans in sandy soil in cool greenhouse in Feb. $1.00/pkt

Parthenocissus quinquefolia. Virginia Creeper DV to 50'. eUS. Zone 3. More or less self-clinging with adhesive discs. Excellent for high walls. Brilliant orange & scarlet autumn leaves. Provides wildlife habitat and nectar/pollen. #1 or #21 or #2 for 60 days. $.85/pkt

Parthenocissus tricuspidata. Boston Ivy DV to 60'. neAsia. Zone 4. Excellent climber on rock or cement-walled buildings. Rich crimson, scarlet autumn foliage. #1 or #2 for 60 days. $.85/pkt

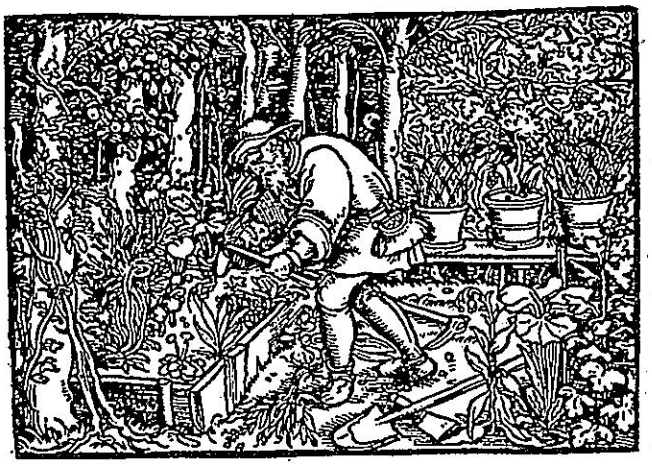
Passiflora caerulea. Blue Crown Passion Flower EV 20-30'. Zone 6. Root hardy in maritime PNW. top hardy to San Francisco. Orange-colored, small, oval, edible fruit. Grows readily from seed sown under glass, one month to sprout, #10. $.95/pkt **

Passiflora edulis. Passion Fruit. Semievergreen V 20-30'. Brazil. Rapid growing, aggressive vine climbing with tendrils. Prolific bearer of deep purple, fragrant, delicious fruit 3" long. Tolerant of many soils. Bright showy flowers. Use on trellies or walls. In cold climates can be grown in greenhouse or as a houseplant in large tubs. Fragrant showy flowers. Very susceptible to crown rot if soil is not well-drained. Readily grown from seed. #10 in early spring. $1.00/pkt **

Passiflora edulis. Banana Passion-fruit Similiar to above except its fruit which is yellow and of an acclaimed flavor. Much larger fruit than purple varieties, up to 6 inches long. Propagate as above. $1.25/pkt **

Schisandra chinensis. Magnolia Vine. D/EV to 25'. Japan, nChina. This member of the Magnolia family is a hardy, vigorous, twining vine grown for its scarlet, edible berries and fragrant, white or rose-colored flowers. Fruit ripens late Aug/Sept. Decidedly lemony flavor and high citric acid content of berries makes a marvelous pink lemonade-like drink. According to Lithuanian herbalists the tea from the dried berries releases muscular and nervous tension and increases alertness and orientation. In China it is famed as a youth preserver, beautifier and sexual tonic. Contraindicated for weak stomach or digestive system or high blood pressure. Full sun or partial shade; non-acid soil, somewhat moist sites with porous, sandy loam. Likes manure and mulch. #1 or #2 for 90 days. #19 $.95/pkt. $1.45/pkt S. $3.00/oz

Vitis coignetiae. Glory Vine DV Japan, Korea, Sakhalin. Zone 5. One of the largest vines. A strong grower useful for covering large walls in a hurry. A magnificent display of crimson and scarlet foliage in the Autumn. Small fruits have poor flavor. #2



Herbs

Agastache foeniculum. Anise-hyssop HP 1-3'. eNA. Zone 2. Anise-hyssop has the reputation of being able to support more hives to the acre than any other honey-plant. It blooms over the summer and fall. Terminal spikes of lavender flowers make it very ornamental. Its fresh leaves add a delicious anise/licorice flavor to salads and gourmet dishes. The dried leaves and flowers make a pleasant tea. Grows well in any garden soil. Sow indoors in early spring #10. $.75/pkt

Agastache urticifolia. Nettle-leaf Horsemint HP 3-6'. PNW. Zone 2. Collected swOR. A honey-plant for moist areas, thickets and the edges of woods and waste places. Tall flowering plants are showy. Grows 10 ft high in Sierra Nevadas in thickets of Ceanothus which protect it from sheep. Indians collected seeds for food. #10. $.80/pkt

Agrimonia eupatoria. Agrimony HP 2-3' Eur. Hardy. A clumping perennial with showy spikes of yellow flowers. Sun or shade. Naturalized in eUS woodlands. Makes a good yellow dye. Used since ancient times for cleansing/toning liver, beneficial to bowels, mild astringent especially for coughs of colds, gargling tea for throat/mouth irritations. Blood purifier. #10. $.80/pkt

Althaea officinalis. Marshmallow HP 3-4'. Eur. Zone 2. Economic ornamental for the garden or for naturalizing in moist/wet areas. Rosy flowers good source of nectar/pollen. It grows in salt marshes, in damp meadows, by the sides of ditches, by the sea and on the banks of tidal rivers. Used as an esculent vegetable in Europe. Leaves, flowers and roots medicinal. Demulcent, emollient, diuretic. Particularly excellent for soothing irritated tissue, external poultice on burns, carbuncles, wounds. Root decoction makes soothing eyewash or vaginal douche. Cold extract of root used for coughs, bronchitis, lung catarrh. Tea helps in many digestive and urinary problems. #3 or #4. $.80/pkt

Anemone occidentalis. Western Pasque-flower HP 6-12". PNW. Zone 1. Collected Montana. Showy alpine and subalpine wildflower. Showy head of seed-plumes gives it the common name of 'old man of the mountains'. #4 best or #12. #19. $.85/pkt. $1.40/pkt*

Apocynum cannabinum. Black Indian Hemp HP 3-5'. NA. Hardy. One of the main fiber plants used by tribes across North America for twine, rope, etc. Root medicinal.

Aquilegia species. Columbine HP 2-3'. NA. Zone 2. A widely-grown native wildflower for its lacy foliage and elegant flowers, which attract hummingbirds. Grows in filtered sunlight or full sun. Self-sows in the garden. Sow outdoors in August or #10 after 3 days chilling. #14. $.85/pkt

Arnica cordifolia. Heart-leaved Arnica HP 12-18". wNA. Zone 1. May be used for same medicinal uses as other Arnica species. Especially useful externally for bruises and injuries. Do not take internally except as homoeopathic tinctures. Brightens up open woods with its sunny, bright yellow flowers. Nectar/pollen. Sow indoors or in garden beds. $.75/pkt

Asparagus officinalis. Asparagus HP 3-5'. Eur. Zone 2. A well known garden vegetable. The rhizomes have been used since ancient times medicinally as a diuretic and sedative. Tops used in floral arrangements. Nectar/pollen. #4 or #2 for 12-30 days. $.80/pkt

Balsamorhiza sagitata. Arrow-leaved Balsam-root HP 2-3'. iPNW. Zone 2. Collected Okanogan. Many dry slopes in the iPNW are lit up in spring with the balsamroots bright yellow flowers. Indians ate young tender shoots, roasted roots and used seed as a condiment. High wildlife food value. Erosion control on dry slopes. Nectar/pollen. $.70/pkt. $3.00/oz

Brodiaea douglasii – see **Triteleia**

Calendula officinalis A 1-2'. Eur. An easy to grow garden flower. Orange and yellow flowers are used for a dye and its petals in salads. Long blooming. Medicinal. #10 or #13. $.70/pkt

Calochortus eurycarpus. Big Pod Mariposa Lily HP to 2'. iPNW. Calochortus contains some of the most beautiful dryland flowers. This species has white to pale lilac petals with purple centers. Their edible bulbs were highly prized by the Indians. Native to grasslands, sagebrush and open coniferous forests. Needs a light/porous and not too stimulating soil. #10 in well-drained soil. #20. $.95/pkt

Camas camassia. Blue Camas HP to 2'. PNW. Zone 3. Collected Puget Sound. Camas bulbs (1 inch diameter) were the most important vegetable food for many PNW tribes and were carried long distances for trade. Once found over much of the maritime and interior PNW, they are now rare due to habitat destruction and livestock grazing. Luther Burbank bred Camas to have large, 5-inch bulbs and double flowers. The blue flowers are very atttractive to humans and honeybees. Natural habitat is moist meadows and seasonally flooded places. Will grow in the garden in

Cardus benedictus. Blessed Thistle A to 2'. Medit. Formerly Cnicus benedictus. A hardy, easy to grow medicinal herb with tonic, diaphoretic, emetic and emmanagogue properties. Used nowadays mostly to aid nursing mothers, milk warm infusion said to scarcely ever fail.#10. $.85/pkt

Clarkia pulchella. Deer-horn Clarkia A to 2'. iPNW. This showy wildflower forms colonies on dry banks and grassy slopes. Beautiful magenta-pink flowers. Self-seeds. #10 in cool temperatures or #14. $.90/pkt

Coronilla varia. Crownvetch HP 1-2' trailing. Eur. Hardy. A fast growing legume for covering dry banks, slopes or waste places. Outcompetes most weeds. Also grown as an ornamental in the herbaceous border. Erosion control, soil enriching. #10. #17 (we supply inoculum with seed). $.95/pkt

Dianthus barbatus. Sweet William Bi 10-20". Eurasia. One of the oldest garden flowers. Readily grown from seed. #10 in early spring. $.70/pkt

Dicentra formosa. Bleeding Heart HP to 18". mPNW. Wildflower grown for lacy foliage and pale or deep-rose flowers. In moist woods and shaded places. Does well in gardens. Blooms March and July. #1 or #10 in cool greenhouse in mid-winter. $.85/pkt

Digitalis purpurea. Foxglove Bi 2-4'. Eur. Often grown as a showy garden flower. Will naturalize. Of easy culture. Valued medicine for heart palpatations, neuralgia, insanity, febrile diseases, anthma, acute inflammatory complaints. CAUTION: This herb is very powerful and should only be used under medical supervision. #10. $.75/pkt

Dodecatheon. Shooting Star HP 6-16" iPNW. Hardy. Collected nwMontana. A very distinctive, aptly-named wildflower. Lavender-rose and yellow with projecting black stamens. Indians used as eye medicine. #10 or #4 in rich, well drained soil. #18. $.95/pkt

Echinacea purpurea. Purple Cone-flower HP 2-3'. cUS. Hardy. Grown as a garden flower and finding increasing demand as a medicinal at good prices. Blood purifier, promotes proper digestion, antidote for insect bites/stings and snakebites. May be used to promote perspiration. Flowers June-Oct. Full sun to light shade. Sow weed outdoors in spring or summer. Or #10. $.80/pkt

Epilobium angustifolium. Fireweed HP 4-8'. nHemisp. Zone 1. A common pioneer plant on cutover/burnt forest land across northern North America. Bright red-pink flowers are showy in the garden or in the wild. One of the best nectar plants. Large quantities of fireweed honey are produced every year from the extensive Pacific Northwest clearcuts. Indians peeled stalks, ate the inner pith, and used stem fibres for cordage. Also has medicinal properties. $.70/pkt

Erigeron speciosum. Showy Fleabane HP to 2'. PNW. Zone 2. Collected PS. Masses of large purple flowers make this species the most showy of this widespread genus. Good bee plant for summer/fall nectar. Grows in open forests and forest clearings. Of easy culture. #1. Or #10 at temperature of 55 degrees F. Or #12. $.70/pkt

Eupatorium purpureum. Queen of the Meadow HP to 6'. NA. Tall, rank plant of low, wet places with purplish to white flowers. Nectar/pollen. Rhizome used medicinally as diuretic, stimulant, tonic, astringent; Strong decoctions used for bladder, kidney, urinary troubles. Easy to grow. #1 or #12. $.80/pkt

Foeniculum vulgare. Fennel HB/P 1-3'. Eurasia. Zone 1. Aromatic seeds used as culinary spice, especially in fish dishes. Seeds and root are excellent stomach and intestinal remedies. Grows in almost any

alertness and orientation. In China it is famed as a youth preserver, beautifier and sexual tonic. Contraindicated for weak stomach or digestive system or high blood pressure. Full sun or partial shade; non-acid soil, somewhat moist sites with porous, sandy loam. Likes manure and mulch. #1 or #2 for 90 days. #19 $.95/pkt. $1.45/pkt S. $3.00/oz

Vitis coignetiae. Glory Vine DV Japan, Korea, Sakhalin. Zone 5. One of the largest vines. A strong grower useful for covering large walls in a hurry. A magnificent display of crimson and scarlet foliage in the Autumn. Small fruits have poor flavor. #2 for 4-7 months. $.85/pkt

douche. Cold extract of root used for coughs, bronchitis, lung catarrh. Tea helps in many digestive and urinary problems. #3 or #4. $.80/pkt

Anemone occidentalis. Western Pasque-flower HP 6-12". PNW. Zone 1. Collected Montana. Showy alpine and subalpine wildflower. Showy head of seed-plumes gives it the common name of 'old man of the mountains'. #4 best or #12. #19. $.85/pkt. $1.40/pkt*

Apocynum cannabinum. Black Indian Hemp HP 3-5'. NA. Hardy. One of the main fiber plants used by tribes across North America for twine, rope, etc. Root medicinal. Nectar/pollen. Moist places. $.70/pkt

stimulating soil. #10 in well-drained soil. #20. $.95/pkt

Camas camassia. Blue Camas HP to 2'. PNW. Zone 3. Collected Puget Sound. Camas bulbs (1 inch diameter) were the most important vegetable food for many PNW tribes and were carried long distances for trade. Once found over much of the maritime and interior PNW, they are now rare due to habitat destruction and livestock grazing. Luther Burbank bred Camas to have large, 5-inch bulbs and double flowers. The blue flowers are very atttractive to humans and honeybees. Natural habitat is moist meadows and seasonally flooded places. Will grow in the garden in moist, rich soil. #10. $.85/pkt. $10.00/oz

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Eupatorium purpureum. Queen of the Meadow HP to 6'. NA. Tall, rank plant of low, wet places with purplish to white flowers. Nectar/pollen. Rhizome used medicinally as diuretic, stimulant, tonic, astringent. Strong decoctions used for bladder, kidney, urinary troubles. Easy to grow. #1 or #12. $.80/pkt

Foeniculum vulgare. Fennel HB/P 1-3'. Eurasia. Zone 1. Aromatic seeds used as culinary spice, especially in fish dishes. Seeds and root are excellent stomach and intestinal remedies. Grows in almost any soil. Full sun. #13. $.65/pkt

Off. Use	Qty.	Name of Item	Price
		SUBTOTAL	

HERBS continued

Fritillara pudica. Yellowbell HP 6". iPNW. Zone 1. Collected nwMT. A very choice Fritillary of real beauty. Fritillaria is a genus of well-known rock-garden plants. A favored bulb food of the Indians who picked large quantities and dried them for winter fare or trading. #10. $.95/pkt

Gaillardia aristata. Blanketflower HP 1-2'. iPNW. Zone 3. Collected Okanogan. Improved forms of this species are well known garden flowers. Yellow ray flowers 3-4" across have orange/bronze inner disc flowers. Indians used it medicinally. Blooms in one yr from seed. Does not like heavy, wet soils. #10 or sow outdoors in April. $.70/pkt

Geum triflorum. Three-fingered Avens, Prairie Smoke HP 12". iPNW. Zone 1. Collected OK. Grown as rock garden plant for foliage, unusual bell-shaped, pink flowers and plumy seed heads. Indians used as a love potion and an infusion is made from the roots for colds, flu, or fever. Likes light shade and light, moist soil. Of easy culture. #10 or #12. $.75/pkt

Gilia aggregata. Scarlet Gilia B 6"-4'. iPNW. Zone 3. Collected OK. Spectacular wildflower with scarlet, trumpet-shaped flowers which attract hummingbirds. Easy to grow, self sows. Needs full sun and dryish soil. Too much water will rot crowns. #20 or #12. $.90/pkt

Gilia capitata. Blue-headed Gilia A to 3'. Pacific states. Hardy. Beautiful wildflowr with clear blue, globe-shaped flower heads. Blooms April-Aug. Shade tolerant, drought resistant. #10 or #12. $.90/pkt

Glycyrrhiza glabra. Licorice Root HP 2-3'. Eurasia. The root of this well-known legume has been one of the major remedies of the Chinese for millenia and in Europe for centuries. Demulcent, diuretic, expectorant, laxative. Used primarily for bronchial problems, coughs, congestion, etc. Also for stomach, kidney, and bladder problems. Often added to teas as sweetener. Used in Europe for making cooling drinks and flavorings. Pale blue flowers in summer. Soil must be deep, mellow, moist and rich for best production of roots. Easily grown. $.95/pkt

Gypsophila paniculata. Baby's Breath HP 2-3'. Eur. Hardy. A standard in the dried floral trade for its misty effect. Very drought resistant, living with the sagebrush. Outcompetes many weeds. Of easy cultivation in sunny places. #10 or sow outdoors early to mid spring. $.80/pkt

Helichrysum. Curry Plant 1-3'. Med-MidEast. Zone 4. An ornamental garden flower. Its fragrant, golden flowers are dried for everlasting bouquets. Placed with woolens to repel moths. #10. $.85/pkt

Inula helenium. Elecampane HP 4-6'. Eurasia. Hardy. Thick, aromatic root used medicinally. Tonic, gentle stimulant, antiseptic. Used in tuberculosis and pulmonary diseases. Its roots may be candied and used as sweetmeats. Grows vigorously in any garden soil. Its bright yellow flowers on tall stalks brighten up the tall herbaceous border. $.85/pkt

Lewisia rediviva. Bitterroot HP 2-4". iPNW. Zone 1. Collected MT. The Lewisias are considered among the most beautiful PNW wildflowers. The large pink flowers arise from an inconspicuous rosette of succulent leaves. In the wild it appears as if large pink flowers are growing directly out of the rocky, arid slopes the bitterroots call home. The relatively big, forked, fat rhizomes were a major food of the interior PNW tribes. Needs well-drained soil in a rock garden. #4 or #2 for 30 days. Plant in coarse sand with admixture of peat moss, cover very lightly #20. $1.00/pkt

Leonurus cardiaca. Motherwort HP 2-8'. Eur. Zone 2. Motherwort is one of the honeybees and bumblebees favorite plants. They arre always hummingwith activity through the summer and right into the fall frosts. It is a heavy nectar producer even under adverse weather conditions. It is very hardy. You should not plant it in the cultivated garden because of its profuse seeding habit. Deep brown dye from stalks and leaves. Highly regarded in the Chinese pharmacopia for heart troubles and to give longevity. Nerve tonic and sedative and for easing menstrual cramps. #10 or #12. $.75/pkt. $5/half oz

Levisticum officinale. Lovage HP 3-6'. Eur. All parts of this umbellifer are aromatic. The fresh leaves and stems add a piquant flavor to salads. The seeds and leaves are used as culinary spice. The root has medicinal properties. Needs deep, rich soil and ample moisture. #10. $.85/pkt

Lithospermum rudorale. Gromwell, Puccoon HP 1-2'. iPNW. Hardy. Collected OK. A many-stemmed clumping perennial found on semi-arid slopes and meadows. Nectar/pollen. A red-purple dye is made from the roots. The Indians used an infusion made from the roots to stop hemmorraging. #12. $.75/pkt

Lobelia inflata. Lobelia, Indian Tobacco Bi 1-3'. eNA. Hardy. A well-known medicinal herb. Antispasmodic, diaphoretic, diuretic, emetic, expectorant, nervine. Useful for chronic bronchitis and spasmodic asthma. See Jethro Kloss's Back to Eden for a thorough review of this powerful herb's many uses. CAUTION -toxic in large doses. Native to meadows and marshy ground. Easy to grow in the garden. #10. $.90/pkt

Lomatium dissectum. Chocolate Tips HP 3-5'. PNW. Hardy. Collected OK. There are many species of Lomatium in the PNW, many of them of value to the native peoples. L. dissectum is one of the largest of the genus with very lacy, pinnate foliage, large umbels of chocolate-purple flowers, and a large, woody taproot. Makes a nice accent plant in the rockery. Although some tribes ate the young shoots just before spring emergence, the plant was considered poisonous the rest of the year. Used as an external medicine. Roots have insecticidal properties. Likes talus slopes, rocky soils, sun or semi-shade. #12. $.85/pkt

Lomatium macrocarpon. Large-fruited Lomatium HP 6-12". iPNW. Hardy. Collected MT. The long fleshy taproots were eaten by native tribes. The seeds were gathered and ground for a culinary spice. A low plant inhabiting dry environments. #12. $.85/pkt

Lythrum salicaria. Purple Loosestrife HP 3-6'. Eurasia. Zone 2. The long spikes of

Melissa officinalis. Lemon Balm HP 10-24". Eur. Hardy. The fragrant leaves emit their perfume when brushed against. Nice near garden benches. A healing herb; antispasmodic, calmative, diaphoretic, carminative, febrifuge. A pleasant, colling tea for feverish patients. Nectar/pollen. #10. $.80/pkt

Monarda didyma. Scarlet Beebalm. Oswego Tea HP 1-3'. eNA. Hardy. Its flowers exhibit one of the most brilliant reds in North American wildflowers. Aromatic, sweet-smelling leaves. Carminative, rubefacient, stimulant. Used mainly as stomach preparation to relieve nausea, vomiting, flatulence. Easy of culture in any good soil. Prefers moist places along streams and edges of woods. #10 best or #1 or #12. $.85/pkt

Nepeta cataria. Catnip HP 2-5'. Eurasia. Hardy. Almost all children who play in the weedy areas of city or farm fields know the heady scent of catnip. One of the best honey-plants for naturalizing for its long bloom time and heavy nectar flows. Flowering tops used as a tea for convulsions, resdtlessness, hysteria, chlorosis, colia, toothache, flatulence and to expel worms. Especially good as a gentle, relaxing, calming tea. Seedheads used in dried floral arrangement. #10 or #12. $.70/pkt

Nicotiana azteca To 3'. A night-blooming, garden flower with very fragrant, white, trumpet-shaped flowers. Plant near bedroom. Self sows. Moist, wall-drained, rich soil in full sun. #10 or #13. Surface sow. $.80/pkt

Oenothera biennis. Evening Primrose B 2-4'. Eur. Hardy. Tall herbaceous plant - yellow and red flowers release a delicate fragrance at night to attract moths. Root can be eaten at the end of first year of growth. Astringent, sedative. #10 or #13. $.70/pkt

Origanum marjorana. Sweet Marjoram A/HP 1-2'. Eur. Treated as annual in cold climates as it winterkills. An excellent honey plant yielding much nectar over a long period in summer/fall, highly sought by honeybees. Easily naturalizes. Makes colorful dried arrangements. Used in smoking mixtures, as a culinary herb, and medicinally as a tonic. #10. $.80/pkt

Origanum vulgare. Oregano HP 12-30". Eur. Hardy. Culinary spice. Leaves strongly aromatic. Nectar/pollen #10. $.80/pkt

Panax quinquefolia. Ginseng. HP 12-18". Appalachians. Zone 4. Ginseng is one of the most famous, valuable and controversial herbs. Many books have been written about its healing properties. A woodland plant adapted to half shade. Often grown commericially under lathe shade. Must have porous, loamy, rich soil. #4 or spring sowing with stratified seed never allowed to dry out. $1.50/pkt **

Penstemon angustifolius HP to 1'. Dakota to CO and NM. Collected CO. See the general description on Penstemons in the shrub section. This species has numerous, bright blue flowers varying to lilac or white in some plants. Does well on sandy sites. #1 or #10. $.95/pkt

Penstemon confertus. Yellow Penstemon HP 1-2'. eCascades. Hardy. Whorls of light-yellow flowers. Semi-arid grassy slopes. #1 or #10 in gentle heat. $.95/pkt

Penstemon palmeri. Balloon Flower HP 2-7'. swUS. Collected sID. White to reddish-pink flowers over 1" long. One of the most delightful species with fragrant, cheery, puffed-up flowers. Rocky habitat. #1 or #10 $.95/pkt

Phacelia linearis. Threadleaf Phacelia A 4-20". iPNW. Collected OK. Inconspicuous foliage but showy blue-lavendar flowers. A [illegible] Nectar/pollen.

Potentilla sp. Cinquefoil HP 1-2'. iPNW. Hardy. Collected OK. A showy, yellow-flowered perennial useful in wildflower mixes for meadows in the iPNW. Nectar/pollen. Spring blooming. $.70/pkt

Prunella vulgaris. Self Heal HP 6-12". Eur. Hardy. A tiny plant which has successfully naturlized itself in most temperate areas of the world. In the mint family with violet-purple flowers. Used as an healing herb for centuries. Easily naturlizes in almost any soil that is not excessively dry. Sun or partial shade. #12 or #10. $.75/pkt

Rhinanthus crista-galli. Yellow Rattle HP 6-32". nHemisph. Hardy. Attractive wildflower of meadows and moist slopes. Yellow flowers. Dried seed heads are each a miniature rattle. Used in dried floral arrangements. $.75/pkt

Rumex scutans. French Sorrel HP to 2'. Eurasia. Hardy. Edible greens with tasty, lemony flavor goes well in salads. Grows well in normal garden conditions. #10 or #12. $.70/pkt

Salvia officinalis. Garden Sage HP 2-3'. Medit. Zone 3. Well-known culinary herb. Ornamental. A favorite of the bees. Stimulant, astringent, tonic, carminative. Used as infusion for sore throat (gargle), sore tonsils, ulcerated throat or bleeding gums. #10 in flats 6-8 weeks before last frost. $.85/pkt

Salvia sclarea. Clary Sage B 2-4'. sEur. Hardy. A rosette of hairy leaves the first year and a tall stalk of showy flowers and bracts. Its name derives from 'clear eye' since it has long been used as a remedy for inflamed eyes. Also with stomachic and haemagogic properties. Culinary herb. Used to flavour liqueurs and wines. Oil of flowering plant used in perfumery. Attracts hummingbirds in mid-summer. Tolerates dry soils. #10. $.90/pkt

Sphaeralcea munroana. White-leaved Globe Mallow 8-24". iPNW. Zone 4. Collected OK. A drought tolerant wildflower with showy bright pink to deep apricot flowers. Suitable in garden rockeries. $.75/pkt

Stachys lanata. Wooly Betony HP 12-18". MidEast. Hardy. Grown as an ornamental for its very white, wooly leaves and spikes of small, purple flowers. Leaves have an apple scent when dried. #10. $.80/pkt

Thymus serpyllum. Mother-of-Thyme HP Creeping. Eurasia. Hardy. Prized as an evergreen edging and as cover for rockwork and waste places. A first rate honey-plant as if freely produces nectar through June/July. It makes a spicy honey famous since ancient times. Widely naturalized in parts of NY state. Can be used to grow over rock benches or seats in the garden or walkways. When crushed it gives off a delightful fragrance. Easily recovers. Leaves are a seasoning. Same medicinal uses as common thyme but to a lesser degree. Persists in poor soils. #10. $.80/pkt

Thymus vulgaris. Thyme HP 6-12". sEur. Zone 1. Well-known kitchen spice. Large quantities of small, lilac flowers in June/July provide much nectar to the honeybee. Diaphoretic, tonic, antiseptic, emenagogue, antispasmodic, carminative. Useful for bronchial and intestinal disorders. An insecticide and fumigant. Warm, light soil in full sun or light shade. #10. $.70/pkt

Triteleia grandiflora. Large-flowered Triteleia HP 1-2'. PNW. Hardy. Collected OK. Until recently it was known as Douglas's Brodiaea (Brodiaea douglasii). Beautiful blue-lavendar, tuba-shaped wildflowers with crimped edges. The flowers are long lasting in water. Not only pretty, it also has perhaps the tastiest bulbs of all the bulbous [illegible] utilized by PNW Indians for food. It

Helichrysum. Curry Plant 1-3'. Med-MidEast. Zone 4. An ornamental garden flower. Its fragrant, golden flowers are dried for everlasting bouquets. Placed with woolens to repel moths. #10. $.85/pkt

Heuchera cylindrica. Round-leaved Alum-root HP 10-24". iPNW. Hardy. Grown as a rock garden plant for its deep green, rosette of scalloped leaves and its head of cream-colored flowers. Okanogan Indians considered this plant the fastest healer of all medicines. Used for sore throats, as a tonic and as a poultice. Grows in crevices in cliffs. #2 for 30 days then #10. $.85/pkt

Hydrastis canadensis. Goldenseal HP to 1'. eUS. Zone 3-4. A samll, perennial plant; native to rich, shade woods and damp meadows. Its thick, knotty rootstock has been a popular remedy for centuries. It acts particularly well for all catarrhal conditions. Antiperiodic, antiseptic, astringent, diuretic, laxative, tonic. Seed must not dry out. Sow seeds in moist shaded soil of a sandy nature in fall or in early spring with stratified seed. $1.40/pkt

Iris missouriensis. Western Blue Flag HP to 2'. wNA. Hardy. Collected MT. A handsome iris with violet-blue flowers. Grows in wet places and seasonally moist places in hot, arid landscapes. Tea from root used for kidney troubles. #4 or #1. #19. $.90/pkt

long fleshy taproots were eaten by native tribes. The seeds were gathered and ground for a culinary spice. A low plant inhabiting dry environments. #12. $.85/pkt

Lythrum salicaria. Purple Loosestrife HP 3-6'. Eurasia. Zone 2. The long spikes of rose-purple flowers bloom over a long period of summer. Good nectar production gives high quality bee forage. Naturalized in many parts of North America along waterways, in swamps/marshy areas. Medicinally it is a mucilaginous, astringent. antidiarrhetic and demulcent. Of easy culture in any moist soil. #12 or #10. $.75/pkt

Medicago lupilina. Black Medic HP 6-24". Eur. Hardy. A trailing legume which grows well as a ground cover under grass, grain crops and in pastures and meadows. Small yellow blossoms. Soil building. Spreads rapidly by seeds and runners. Good for quick ground cover for erosion control. It has rooting, decumbent stems like the white clover used by Masunoba Fukuoka (of One Straw Revolution fame). It shows promise of being used in the same manner in climates too cold/dry for white clover as it is drought tolerant and hardy. Anyone interested in working with this plant as a ground cover under other crops keep in touch with me on your progress. (M.P.) Do not use it with low growing vegetables as it would smother them. In Europe it is grown for forage and hay. Alfalfa is also a Medicago. #13. $.75/pkt

flowers over 1" long. One of the most delightful species with fragrant,cheery, puffed-up flowers. Rocky habitat. #1 or #10 $.95/pkt

Phacelia linearis. Threadleaf Phacelia A 4-20". iPNW. Collected OK. Inconspicuous foliage but showy blue-lavender flowers. A long bloom time (April-Aug). Nectar/pollen. Dry slopes, among brush and open, grassy slopes. #10 or #12. $.90/pkt

Phacelia hastata. White-leafed Phacelia HP 1-2'. iPNW. One of our most drought-tolerant wildflowers, growing on sand, poor soil and disturbed ground. Coils of numerous white to lavender-tinted, bell-like flowers. The honeybees and bumblebees fairly swarm over it. #10 or #12. $.85/pkt

Phormium tenax. New Zealand Flax E/HP to 9'. New Zealand. Zone 7-8. Used widely in New Zealand as a fiber and basketry plant. It yields a high-quality fiber, the better grades of which are fully as good as the best flax linen. It is also used for rope, twine, fish lines, sacks, sandals, and all sorts of matting, both rough and fine. Similiar in form to the yuccas only with longer leaves. Grown in Calif as a striking lawn plant. It will grow in the milder parts of mPNW. Thrives in almost any soil or exposure except waterlogged soils. Can be used as a windbreak along coastlines because of tolerance to salt air and ocean spray. #10 in greenhouse or coldframe. $.95/pkt

Triteleia grandiflora. Large-flowered Triteleia HP 1-2'. PNW. Hardy. Collected OK. Until recently it was known as Douglas's Brodiaea (Brodiaea douglasii). Beautiful blue-lavender, tube-shaped wildflowers with crimped edges. The flowers are long lasting in water. Not only pretty, it also has perhaps the tastiest bulbs of all the bulbous plants utilized by PNW Indians for food. It prefers the deep soils of meadow steppe grassland. Moist in spring, but dry in summer. #1. $.90/pkt

Urtica dioica. Stinging Nettle HP 2-9'. nHemisph. Zone 1. Who hasn't enjoyed those early spring banquets of nettle greens! Rich in iron, protein, sodium and strength giving properties. Produces a high quality fiber similiar to flax. Source of rennet. Prefers rich, moist ground and soon makes it richer. Medicinal. Dark, green dye. $.80/pkt

Valerian officinalis. Valerian HP 2-5'. Eurasia. Hardy. The source of strong-smelling roots of high medicinal and economic value. Bears umbels of very fragrant, whitish, pinkish or lavender flowers which attract many insects including honeybees. Great curative properties. Roots are antispasmodic, anodyne, diuretic, hypnotic, antiperiodic, carminative, nervine and vermifuge. Makes a sedative tea which does not accumulate in system. It spreads rapidly from root suckers soon forming large colonies. Tolerant of shade. Grows well in garden soils. $.90/pkt

PROPOGATION METHODS

The propagation of plants from seed is an art and a science. No schooling is required to begin the mastery of this art/science. Proficiency comes with practice. Cultivate your green thumb and watch it grow.

Annuals (weeds, garden vegetables, garden flowers) are opportunists, adapted to living in disturbed ground. They grow fast; flowering and fruiting in a single season. Usually they need no pre-treatment to germinate. Supply water and warmth and off they go.

On the other hand we have some woody-stemmed plants whose seedcoats are extremely impervious and hard to germinate. For example, seed of some fire-adapted plants have tough seedcoats which usually germinate only after a fire has softened its seedcoat. They can lay dormant in the soil for decades or even centuries and then germinate promptly after a fire. The closed-cone pines of California are also adapted to fire. Their hard, tight cones remain closed and persistantly cling to the tree for many years. The cones usually only open following a fire.

The seed of most temperate, woody-stemmed plants are accustomed to a dormant period during the winter and germinating in the spring. This internal dormancy is overcome by a period of chilling and moisture. As a general rule, seeds of woody-stemmed plants native to regions with long, cold winters need a longer period of moist, chilling conditions than do plants from warm temperate and Mediterannean climates. Subtropical seeds usually require little, if any, chilling.

The seeds of some of the plant species we offer are difficult to propagate even by experienced growers. The seeds of others need no pretreatment and are easily grown. The bulk of our seeds lie somewhere in between these two extremes. Success can be expected with the seeds of most species if the simple propagation procedures we give for each species are followed, and provided the young plants are not allowed to dry out, be choked by weeds, run over, eaten, etc.

Space does not allow more than a brief introduction, but a number of books are reviewed for those who wish to research further into plant propagation, plus we offer an informative, inexpensive booklet on growing seedlings. Nothing matches first hand experience for learning! The more time we spend with plants the more we gain insight into their life processes and the bigger our green thumbs will grow.

The propagation methods listed below are numbered to save space in the catalog desciptions. Sometimes we give a choice of methods or combinations of methods.

#1. Fall sow.
Fall sown seed gives the best results with many species. The seeds naturally experience a cold, chilling period and can begin growth in the spring at the earliest opportunity. Best results will be had if the beds for fall sowing are prepared some months ahead of time and allowed to settle. A good garden soil is suitable for most plants. A deeply dug bed is preferable. The surface should be raked to a fine tilth just before seeding. Large seeds should be planted twice their diameter into the soil. Small seed can be broadcast over the surface or planted in rows. A thin covering of sifted peat moss is sprinkled over the seed and the seeds pressed into the surface by a roller, board, or hand. Fall sown beds should be mulched 6-12" deep to minimize soil heaving, surface compaction and ameliorate soil temperature. Mulch preferably with seed-free material. In the early spring most of the mulch should be carefully removed to allow the soil to warm up. A thin mulch can be helpful in keeping down weeds, but it should be checked frequently and removed as soon as gemrination starts so as not interfor with seedling emergence. Removal of mulch is particularaly important with small seeds. Large seeds like walnut, and filbert can penetrate 3 inches of mulch. Mark your rows and beds for easy identification in the spring. Larger seeds are often benefited by soaking in cold water for one day before sowing. Seed can be sown at any time before the soil freezes, but mid-fall is preferable for most seeds.

#2. Cold Stratification.
Cold stratification consists in placing the seed in a moist medium and storing the mixture in a root cellar, refrigerator, greenhouse, shed or other facility which stays between 32 and 41 degrees F. The most commonly used materials for mediums are peat moss, clean sand, vermiculite and perlite. The acidity of the peat moss helps many seeds to germinate. Perlite is preferable to vermiculite as the latter compacts easier. The idea is to expose the seed to moist, chilling conditions. Air is also needed as the seeds respiration gradually increases. Completely air-tight containers are to be avoided, especially with non-sterile medium. Polyethelene bags allow some air exchange and are suitable. The medium should be moist but you should not be able to wring water out of a handful. You are more likely to err by overmoistening rather than undermoistening. Seeds should be soaked in water before stratification. generally a day is sufficient. This can be omitted with tiny seed. The seed can be mixed with the medium and kept in a plastic bag to prevent drying out. Or the seed can be placed between layers of medium in a flat or pot, Smaller seeds can be sandwiched between folds of muslim and layered in the medium. The mixture should be checked periodically for drying out or molding and stirred for aeration. The seed should be sown when the alloted stratification period is completed. The medium can be sown right along with the seeds. If the seeds start germination while in stratification they should be planted immidiately. If this is not possible than they should be stored as close to freezing as possible.

#3. Warm plus cold stratification.
These seeds need a period of afterripening in warm, moist conditions before experiencing a period of cold, moist conditions. These conditions can be met by planting the seeds in the summer or fall. Or by stratifying them at warm temperatures in a bag, pot, etc followed by fall planting or winter cold stratification prior to spring planting.

#4. * Sow Fresh Seed.
These are seeds which give best germination results if planted soon after ripening. Some lose viability rapidly after ripening. Others are difficult to germinate once they have been dried. Seeds of these requirments which we sell are collected and shipped as quickly as possible. In many cases the seeds are kept moist from the time of collection until they reach you. Plant promptly upon receiving shipment.

#5. ** Sow before freeze-up.
These seeds have a relatively short viability period but are not so crucial as the above category. They can be shipped and stored dry for a time, but are prone to excessive drying. Examples are chestnuts (Castanea) and acorns (Quercus).

#6. Hot Water Treatment.
These seeds have very hard seedcoats which need to be softened before the seed can germinate. Bring a quantity of water almost to the boiling point (200 degrees F). Pour the water over the seeds and let the mixture gradually cool to room temperature. Continue soaking for a day and then sow. For large volumes of seed the formula says to use a quantity of water about 4 times the volume of the seeds. For packets of seed a teacup of water can be used. The seeds should visibly swell if the scalding has been successful. If some seeds do not swell they can be seperated out and the process repeated again. Do Not Boil The Seeds!

#7. Hot Fire Treatment.
This method can be used for fire adapted species such as Arctostaphylos and Ceanothus. Bury the seeds 1 to 2 inches deep in a flat of soil. Make a pile of light kindling material 6 inches deep on top of the flat and light it. The heat of its burning softens the seedcoats. The wood of the flat can be covered with metal or tinfoil to prevent its burning. A quick, hot fire is the key.

#8. Acid Treatment.
Immersing hard-coated seed in sulphuric acid to wear away the seedcoat is a common practice in commercial nurseries. It is not a procedure recommended for amateurs. Sulphuric acid is a dangerous substance to handle. It is also tricky to leave the seed in for the correct amount of time without overdoing it and killing the seed. Hydrogen peroxide will sometimes improve germination of these seeds. Data is hard to come by on the use of hydrogen peroxide. Readers are encouraged to write in of experiences with the use of hydrogen peroxide for softening seedcoats.

#9. Mechanical scarification.
There are many methods of wearing away or cracking seedcoats by mechanical abrasion.The object is primarily to make it easier for water to penetrate the seed coat. The largest seeds can be carefully cracked so as not to damage the soft embryo. Best done in a vise. Other large seeds can have a hole filed in the seedcoat, be slit with a knife, or be nicked/chipped with a knife. The hole should be on the side opposite the hylum so that the radicle is not damaged. Smaller seed can be rubbed between sandpaper. Another method is to mix the seed with sharp, coarse sand and rub it on a hard surface with a brick. Seed should be examined periodically with a magnifying glass to determine progress. Here also care must be exercized not to overdue the scarification.

#10. Sow Indoors.
These are mostly small seeds which are difficult to monitor closely in an outdoor bed. Some are slow germinating. The seeds can be planted in flats, in peat pots, pans, flower pots, etc. and the container placed in the greenhouse or window. Hotbeds or coldframes are suitable for some seeds. Or seeds may be sown in greenhouse beds. Bottom heat is helpful for many species. Many different materials can be included in the sowing medium including peat moss, sand, perlite, vermiculite, compost, and soil. Compost must be well-broken down. All materials should be screened to break them into small particles. Some growers sterilize sand, soil, and compost.The mix must be able to meet the nutrient needs of the seedlings. Using some rich soil or compost can meet the needs for some seeds. Other amendments may be added such as blood meal, fish fertilizer, bone & hoof meal, ground limestone, various NPK fertilizers. Good drainage and good water retention are the object. After sowing, the seed should be thinly covered with a sprinkling of sifted peat moss. Important! Flats are preferably watered from the bottom up. Place flat in a water-proof container and fill the container (not the flat) with water to a level slightly below the top of the soil. The water will gradually soak into the soil from underneath and the sides. Remove the flat when the soil is uniformly moistened, but before it turns into a mass of mud. In between major waterings the surface can be kept moist with a hand spray-bottle or mister attachment on a hose. After seedlings have gained some strength they can be transplanted into peat pots or greenhouse beds to gain size before being planted in outdoor beds. Flats or pots can be inserted in a plastic bag or covered with panes of glass after planting to prevent drying out. This is especially useful for seeds sown on the surface or barely covered.

#11. Stratification in Flat.
A combination of methods #2 and #10. Especially useful for the tinier sorts of seeds that need stratification. The seed is sown directly into a flat or pot as outlined in #10. The flat is moistened, drained, inserted into a plastic bag, the bag tied shut and than put in a spot where it will be at the proper temperature. After the alloted period of cold stratification the flat can be transferred to a warmer location. Once the seeds begin to germinate the plastic should be removed.

#12. Sow in early Spring.
Sow outdoors early in the spring after the ground can be worked. It is advantageous if the beds have been prepared the previous fall and mulched overwinter.

#13. Sow after danger of frost.
Sow outdoors in the spring after all danger of frost is past and the ground is warm. Corn-planting time.

#14. Surface Sow.
These plants need light to germinate. They should be surface sown and pressed into the surface. Water from below as detailed in #10 or use only a fine mist for surface watering so as not to dislodge the seeds. The seeds must not be allowed to dry out. A glass pane or plastic over the flat or bed will help.

#15. Soak Seeds.
Most seeds appreciate soaking before sowing. Some in particular benefit. Cold tap water is the best temperature for most species. One day for soft-shelled seeds and 2 days for hard or thick-shelled seedcoats. Three days for the hardest, such as hickory. The water should be changed once a day.

#16. Peat covering.
The acidity in peat moss supplies seeds with the conditions they normally find on a forest floor. Walnuts, chestnuts, hazels and other large seeds from forest trees are benefitted if a handful of peat moss is deposited on them before covering with soil. If the nuts are lined out in a furrow a line of peat moss may be laid down the entire furrow.

#17. Mycorrhizal Associations.
It has been found that many plants benefit from a mycorrhizal association with soil fungi. Mycorrhizae are the narrow, threadlike subteranneon bodies of fungi. Mushrooms are the above-ground fruiting bodies of these underground mycelia. In the legumes the mycorrhizal association takes the forms of root nodules. Many plants have mycorrhizal associations without nodules so it is only recently that much has been learned about these associations and thier importance to plant health. In some cases it is easy for the plant to form associations with local soil fungi, In other cases the plants are mycorrhiza dependent to a large degree and only with certain specific fungi. Various kinds of legume inoculant are available commercially. And recently even for some non-legumes. Inoculum can be had by removing nodules from the roots of local specimens of plants of the species you are seeding. The nodules can be ground up and mixed with the seed just prior to planting. A method for non-nodule forming species is to dig some soil from around the roots of plants of the same species and mixing it in the seedling bed. The source offering the largest selection of inoculum (that we know of) for dozens of legumes including many trees and shrubs is NITRAGIN, 3101 West Custer Ave, Milwaukee, WA, 53209.

#18. Shading.
These plants are adapted to sprouting on the forest floor and best results will be had by shading the seedbeds during the seedlings early growth. Depending on the species this may be for the first few months or for the first year or even two years. Shading cans be done with lathe, or greenhouse screen suspended at least 18" above the ground. Small diameter stems or saplings can be woven into mats to take the place of lathe. Shade houses can be made by growing vines on overhead trellises. Beds can be established in the shade of an overstory of thin-foliaged trees. Or where beds will be shaded from midday summer sun.

#19. Erratic Germination.
These species have seed which tend to germinate erratically for a variety of reasons. Part of the seed may germinate the first spring after planting (or stratification) and part germinate the second spring. Or the whole lot may not germinate till the 2nd spring. Beds or flats of this type of seed should be well marked and not given up on for several years. Flats are easier to maintain than beds.

#20. Rock Plants.
Many rock plants are adapted to sites with thin, rocky soil. Given too much moisture the seedlings rot easily. Best results are had if the medium caontains 50% rock grit and includes peat moss. The seed should be surface sown and covered with a thin layer of rock grit.

#21. Outdoor stratification.
A common pregermination treatment for large lots of black walnut, hickories, and other hard-shelled large seeds is to mix the seeds with sand and leave outdoors, overwinter to alternately freeze and thaw to help crack the shells. The site for such a sandbox is preferably in the shade of trees or north side of a building. The bed should be protected against rodents by metal screen and be well-mulched. The seeds are planted in the spring before the radicle emerges.

#22. Two-part germination.
The seeds of some plants fall in the summer and send down a root. The epicotyl (top) does not break dormancy until next spring. These plants (notably the white oaks) need to be planted soon after ripening so they can follow their normal course of events.

#23. Delayed two-part germination.
Similiar to the above situation, only the root does not usually break dormancy until the year following seed ripening. The top not breaking dormancy until the following year. Plant stored seed in the spring. Expect top germination the following spring.

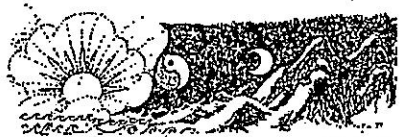
#24. Remove pulp from berries.
The seeds of many berries will not germinate while surrounded by the fruit pulp. The pulp is often removed by animal digestive systems. Pulp (or wax) can be removed from dried berries by rubbing over a screen. This can be aided by soaking for several days first. A method for undried, wet berries is to push them through a screen. If the seeds are to be sown right away another method is to mix the berries with coarse sand and grind with a brick on a flat surface. Sow the resultant mixture of seeds, pulp and sand. See newsletter #8 for information on another method for cleaning berry seed.

Damping Off.
Damping off is a fungus attack on the stems of young seedlings. It is usually caused by too much moisture and not enough aeration. Fungicides can be used to forestall or stop damping off. Also hot, dry sand can be sprinkled over the bed if it should appear. Chamomile tea reportedly gives good results.

Rodent/bird protection.
Many seeds are attractive to rodents and birds and in some instances the whole seeding can be dug up, eaten, or carted away. If this is likely to be a problem at your site the beds can be protected with a wire screen around and above it. The screen should extend underground if burrowing critters are around. Watch out for mice damage in flats.

Winter Protection.
As a general rule, woody-stemmed plants can stand colder temperatures when well-established than when seedlings. When growing plants of species marginal in your location it is wise to give them winter protection the first years. Protection can include bundling, burlapping, and mulching. Some species can be grown in pots, half barrels, etc and brought indoors over the winter. Vines can be taken down and mulched. Always protect the plant with screen to prevent mice girdling.

Mulching Seedbeds
Nursery beds should be mulched to cover the soil and prevent rain spattering. Soil splash, which coats the tiny leaves of newly-emerged seedlings, is an important cause of mortality in nurserys. Hay, straw, etc can be used for large seeds which can penetrate the mulch. Peat moss works well for smaller seeds since it is easily penetrated and gives a uniform covering. The smaller the seed, the thinner should be the mulch layer.



If in the darkest nights you cannot find the people who will listen -- Reach into the trees. For in the deeper reaches of your mind there is a light and the people of the trees will always listen

MY FAVORITE PROPAGATION BOOKS

In the course of researching how to propagate hundreds of plants from seed I refer to several hundred horticultural books in my library. Out of these there are a dozen that I pick up most frequently. Here are short reviews on my present favorites. Please help add to this list by sending in reviews on your favorite books on propagation.

Seeds of Woody Plants of the United States. USDA Handbook #450; 1974; 883 pages. #24.95. If I am researching a woody-stemmed plant which is native to the United States or commonly grown here this is the first book I turn to for detailed information on flowering and fruiting times; collection, extraction and storage of seed; number of seeds/lb; pregermination treatments; germination tests; and current nursery practices. The most exact data available for the species covered in it.

Growing Plants from Seed. by Richard Gorer. 1978; Faber & Faber, London; 144 pages. A small book, but certainly a useful one. Precise information on how to grow several hundred species of woody-stemmed plants. Helps with information on temperate species not native to North America.

Plants-a-Plenty. by Catharine Osgood Foster. 1977; Rodale Press; 328 pages. A valuable quick reference. Propagation info on each plant is brief, but she covers an incredible number of herbs, vegetables, garden flowers, wildflowers, and woody-stemmed plants. It may be out of print. Well worth picking up if you come across a copy.

Park's Success with Seeds. by Ann Reilly, 1978; George W. Park Seed Co; 364 pages. Color photos of mature plants and of seedlings for each specie. Good information for herbs, garden flowers, woody-stemmed plants and some vegetables.

Park's Success with Herbs. by Gertrude B. Foster and Rosemary F. Louden. 1980; George W. Park Co; 192 pages. Color pictures of seedlings and plants. Describes habit, uses, seed germination and culture of many culinary and medicinal herbs. The information on seed propagation is top-notch.

The Nursery Manual. by L.H. Bailey. 1896; Macmillan, NY. One of the best early texts on the subject and still useful today. About 40% of the book is an alphabetical listing of plant species and methods of propagation. Recently been reprinted.

Wildflowers and How to Grow Them by Edwin F. Steffer. 1973; Crown Pub; NY; 192 pages. Does not cover that many species but gives detailed information on those included.

The Complete Book of Growing Plants from Seed. by Elda Haring. 1967; Hawthorn Books; NY. 240 pages. Information is brief but covers many flowers, vegetables, herbs, trees and shrubs.

The Standard Cyclopedia of Horticulture. by L.H. Bailey. 1935 edition; Macmillan; NY; 3,639 pages. These three hefty volumes are my seperate set of books. Some nomenclature is outdated, but it covers almost every species of plant in cultivation at that period. A wealth of information. Propagation info is standard inclusion for each plant. Sets can still occasionally be found through used books stores or mail-order used book dealers. A set for under $100 is a deal! The somewhat encapsulated, but updated version is Cornell University's "Hortus Three". Presently available for $135.00.

How to Grow Seedlings of Trees and Shrubs. by F.W. Schumacher. 14 pages. An introduction to the field of seedling culture. This valuable book is packed with concise information on how seedlings can be successfully grown. Does not cover individual species. Affordable and available from Friends of the Trees for $1.25.

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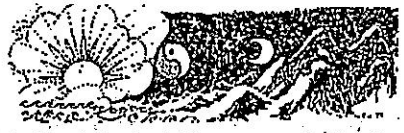

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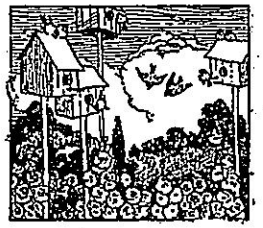

COMMON NAME INDEX & HONEY-PLANT BLOOM CHART

N= Supplies nectar and pollen P= Supplies pollen only T= Tree S= Shrub H= Herb V= Vine

COMMON NAME	BOTANICAL NAME		Early spring bloom	Late spring bloom	Summer bloom	Fall bloom
Alder (Red)	Alnus rubra.T	P	e	l		
American Plum	Prunus americana.T	N		l		
Amur Corktree	Phellodendron amurense.T	N		l		
Anise-hyssop	Agastache foeniculum.H	N		l	s	f
Apricot (Ansu)	Prunus ansu.T	N		l		
Apricot (Sweet-pit)	Prunus armeniaca.T	N		l		
Arnica (Heart-leaved)	Arnica cordifolia.H	N	e			
Agrimony	Agrimonia eupatoria.H					
Arrow-leaved Balsam-root	Balsamorhiza sagitata.H	N	e			
Asparagus	Asparagus officinalis.H	N			s	
Autumn Olive	Elaeagnus umbellata.S	N		l		
Baby's Breath	Gypsophila paniculata.H					
Balloon Flower	Penstemon palmeri.H	N			l	s
Basswood (American)	Tilia americana.T	N		l		
Bayberry (Northern)	Myrica pennsylvanica.S					
Bay Laurel	Laurus nobilis.T	N		l		
Beach Plum	Prunus maritima.S	N		l		
Beardtongue	Penstemon	N				
Beauty Bush	Kolkwitzia amabilis.S					
Bee Tree	Evodia daniellii.T	N		l	s	
Birch (European White)	Betula pendula.T	P	e			
Birch (River)	Betula occidentalis.T	P	e			
Bitterbrush	Purshia tridentata.S	N		l		
Bitterroot	Lewisia rediviva.H					
Bittersweet	Celastrus scandens.V	N		l		
Blackberry (Himalaya)	Rubus procerus.S	N		l	s	
Blackcap Raspberry	Rubus leucodermis.S	N		l	s	
Black Haw	Viburnum prunifolium.S	N		l		
Black Indian Hemp	Apocynum canabinnum.H	N			s	
Black Medic	Medicago lupilina.H					
Black Locust	Robinia pseudoacacia.T	N		l		
Black Mulberry	Morus nigra.T					
Black Sage	Salvia mellifera	N		l	s	
Black Walnut	Juglans nigra.T	P		l		
Blanketflower	Gaillardia aristata.H	P		l	s	
Bleeding Heart	Dicentra formosa.H					
Blessed Thistle	Cardus benedictus.H	N				
Blueberry (Highbush)	Vaccinium corymbosum.S	N		l		
Blueblossom	Ceanothus thyrsiflorus.S	N		l	s	
Passion Flower Vine	Passiflora caerulea.V					
Blue Elderberry	Sambucus caerulea.S	P		l	s	f
Blue-headed Gilia	Gilia capitata.H	N		l	s	
Boston Ivy	Parthenocissus tricuspidata.N			l	s	
Buckbrush	Ceanothus velutinus.S	N	e	l		
Butterfly Bush	Buddleia davidii.S	N			s	
Bunchberry	Cornus canadensis.S					
Butternut	Juglans cinera.T	P		l		
Calendula	Calendula officinalis.H	p		l	s	f
Camas	Camas camassia.H	N		l		
Catalpa (Northern)	Catalpa speciosa.T	N			s	
Catnip	Nepeta cataria.H	N		l	s	f
Cedar-of-Lebanon	Cedrus libanii.T					
Chaste Tree	Vitex agnus-castus.S	N			s	f
Chestnut (Chinese)	Castanea mollisima.T	P		l		
Chestnut (European)	Castanea sativa.T	P		l		
Chocolate Tips	Lomatium dissectum.H					
Chokecherry	Prunus virginiana.S	N		l		
Clarkia (Elegant)	Clarkia pulchella.H					
Clary Sage	Salvia sclarea.H	N			s	
Columbine	Aquilegia.H					
Cornelian-cherry Dogwood	Cornus mas.T	N	e			
Crownvetch	Coronilla varia.H					
Curry Plant	Holichrysum.H					
Damson Plum	Prunus insiticia.T	N		l		
Deodar Cedar	Cedrus deodara.T					
Douglas Fir	Pseudoacacia menziesii.T					
Elecampane	Inula helenium.H					
English Holly	Ilex aquifolium.T					
Evening Primrose	Oenethera biennis H					
Fennel	Foeniculum vulgare	N			s	
Fireweed	Epilobium angustifolium.H	N		l	s	f
Foxglove	Digitalis purpurea.H					
French Sorrel	Rumex scutans.H					
Globe Mallow	Sphaeralcea munroana.H	N		l		
Glory Vine	Vitis coignetiae.V	P		l		
Chinese Gooseberries	Actinidia.V	N		l		
Gold Currant	Ribies aureum.S	N		l	s	
Golden clematis	Clematis tangutica.V	N			s	f
Goldenchain Tree	Laburnum angyroides.T					
Goldenrain Tree	Koelreuteria paniculata.T	N		l	s	
Gold Penstemon	Penstemon rydbergii.S	N				
Gromwell	Lithospermum ruderale.H	N	e			
Guava (Strawberry)	Psidium cattleianum.T					
Hardhack	Spiraea douglasii.S	N			s	f
Hazel (Siberian)	Corylus heterophylla.S	P	e			
Hazel (Western beaked)	Corylus cornuta.S	P	e			
Hickory (Pignut)	Carya glabra.T	P		l		
Highbush Cranberry	Viburnum trilobum.S	N		l		
Honeylocust	Gleditsia triacanthos.T	N		l		
Huckleberry (Big)	Vaccinium membranaceum.S	N		l		
Huckleberry (Evergreen)	Vaccinium ovatum.S	N		l	s	
Huckleberry (Red)	Vaccinium parviflorum.S	N		l	s	
Hyssop	Hyssopus officinalis.S	N		l	s	f
Japanese Heartnut	Juglans sieboldiana.T	P		l		
Japanese Raisin-tree	Hovenia dulcis.T					
Jujube	Zizyphus jujube.T					
Kinnikinnik	Arctostaphylos uva-ursi.N			l		
Kiwi-fruit	Actinidia chinensis.V	N		l		
Lemon Balm	Melissa officinalis.H	N		l	s	f
Licorice Root	Glycyrrhiza glabra.H	N				
Lobelia	Lobelia inflata.H					
Lomatium (Large-fruitod)	Lomatium macrocarpon.H					
Loquat	Eriobotrya japonica.T	N				
Lovage	Levisticum officinale.H					
Madrone	Arbutus menziesii.T	N	e	l		
Magnolia Vine	Schisandra chinensis.V	N		l		
Mariposa Lily (Big-pod)	Calochortus eurycarpus.H					
Marshmallow	Althaea officinalis.H	N			s	
Medlar	Mespilus.T	N		l		
Mormon Tea	Ephedra viridis.S					
Mother of Thyme	Thymus serpyllum.H	N			s	
Motherwort	Leonurus cardiaca.H	N			s	f
Mountain Mahogany	Cercocarpus montanus.S	N		l		
Nanking Cherry	Prunus tomentosa.S	N	e			
Nettle	Urtica dioica.H					
Nettle-leaf Horsemint	Agastache urticifolia.H	N			s	
Oceanspray	Holodiscus discolor.S					
Oregon Grape	Mahonia.S	N		l		
Oregana	Origanum vulgare.H	N			s	
Osage Orange	Maclura pomifera.S					
Pacific Dogwood	Cornus nuttali.T					
Pasque-flower	Anemone occidentalis.H					
Pawpaw	Asimina triloba.T					
Peach (Siberian C)	Prunus persica.T	N	e			
Persimmon (American)	Diospyros virginiana.T	N			l	
Pines	Pinus.T	P				
Port Orford Cedar	Chamaecyparis lawsoniana					
Prairie Smoke	Geum triflorum.H	N			l	
Prinsepia-cherry	Prinsepia sinensis.S	N	e			
Purple Cone-flower	Echinacea purpurea.H					
Purple Loosestrife	Lythrum salicaria.H	N				s f
Purple Sage	Salvia dorrii carnosa.S	N			l	
Queen-of-the-Meadow	Eupatorium purpureum.H	N				
Quince	Cydonia oblongata.S	N	e			
Redwood	Sequoia sempervirens.T					
Rock-rose	Cistus purpureas.S					
Rocky Mountain Juniper	Juniperus scopulorum.T					
Rocky Mountain Maple	Acer glabrum.T	N	e	l		
Rose-of-Sharon	Hibiscus syriacus.S					
Round-leaved Alum-root	Heuchera cylindrica.H	N				
Royal Paulownia	Paulownia tomentosa.T	N	e			
Russet Buffaloberry	Shepherdia canadensis.S	N				
Russian Mulberry	Morus alba tatarica.T					
Russian Olive	Elaeagnus angustifolia.T	N		l		
Salal	Gaultheria shallon.S	N	e	l		
Salmonberry	Rubus spectabilis.S	N	e			
Sand Cherry	Prunus besseyi.S	N		l		
Sage (Garden)	Salvia officinalis.H	N		l	s	
Scarlet Beebalm	Monarda didyma.H					
Scarlet Gilia	Gilia aggregata.H					
Sea Buckthorn	Hippophae rhamnoides.S					
Self-heal	Prunella vulgaris.H					
Sequoia	Sequoiadendron gigantica					
Serviceberry (Western)	Amelanchior alnifolia.S	N	e			
Shooting Star	Dodecathoon.H					
Showy Fleabane	Erigeron speciosum.H	N				s f
Shrubby Penstemon	Penstemon fruticosus.S	N		l		
Siberian Ginseng	Acanthopanax senticosus.S					
Siberian Pea-shrub	Caragana arborescens.S	N	e		s	
Silktassel	Garrya elliptica.S					
Silk Tree	Albizzia julibrissin.T					
Silverberry	Elaeagnus commutata.S	N		l		
Silver Buffaloberry	Shepherdia argentea.S	N	e	l		
Smoketree	Cotinus coggygria.T					
Snowberry	Symphoricarpus alba.S	N		l	s	
Snow Gum	Eucalyptus niphophylla.T	N				
Sour Cherry	Prunus cerasus.T	N	e			
Sourwood	Oxydendron arboreum.T	N			s	
Squaw Currant	Ribies cereum.S	N	e			
Strawberry Tree	Arbutus unedo.S	N				f
Sunrose	Helianthemum nummularium.S					
Sweet Marjoram	Origanum marjorana.H	N			s	f
Sweet William	Dianthus barbatus.H					
Tara Vine	Actinidia arguta.V	N		l		
Tartarian Honeysuckle	Lonicera tatarica.S	N		l		
Thimbleberry	Rubus parviflorus.S	N		l		
Threadleaf Phacelia	Phacelia linearis.H	N		l	s	
Thyme	Thymus vulgaris.H	N		l	s	
Trazel	Corylus.T					
Triteleia (Large-flowered)	Triteleia grandiflora					
Tulip Tree	Liriodendron tulipifera	N	e			
Turkish Tree Hazel	Corylus colurna.T					
Valerian	Valeriana officinalis	N		l	s	
Virginia Creeper	Parthenocissus quinquefolia.VN			l	s	
Walnut (Russian)	Juglans regia.T	P		l		
Western Blue Flag	Iris missouriensis.H					
Western Clematis	Clematis ligusticifolia.VN				s	
Western Larch	Larix occidentalis.T					
Western Red Cedar	Thuya plicata.T					
White Mulberry	Morus alba.T					
Witch-hazel	Hamamelis virginiana.S					
Wooly Betony	Stachys lanata.H	N			s	
Yellowbell	Fritillaria pudica.H					
Yellow Penstemon	Penstemon confertus.H	N		l		
Yellow Rattle	Rhinanthus crista-galli.H					