# Landscaping with Herbs

by Elisabeth W. Morss

Herbs have always travelled with people, from a remote past to the present. Around the world, they are the group of plants which, in special ways, became indispensable to man's well-being and then were associated with symbol and tradition. Never a static gathering, they have long flourished in gardens and have been overlooked as material for landscaping. My personal thought about landscaping vs. garden is that garden tends to concentrate upon specific location while landscaping is a response to area. One may have landscaping with or without garden but not necessarily the reverse. So often a garden absorbs something from its setting that gives at least a sense of landscaping. It may be proximity to a house, the importance of a tree, the suggestion of more to follow implicit in a gate. Many gardens are held closely to their plans; landscaping usually has to acknowledge maturing trees and shrubs and neighborhood development.

In landscaping, just as in gardens, herbs can achieve a marvelous

Mrs. Morss is a longtime Friend of the Arnold Arboretum and in fact this article was solicited as a result of a lecture which she presented in a recent "Evenings with Friends" series. Her experience with herbs is extensive. She has lectured widely and she has grown herbs for more than thirty years. She has served on the National Executive Board of The Herb Society of America. Mrs. Morss is the author of Herbs of a Rhyming Gardener. Herb growers also might be interested in Mrs. Morss's low-maintenance methods of winter covering and mouse control, published in her article "Of Mice and Mulch", The Herb Grower Magazine, Vol. XXIII, No. 3, 1970 (Falls Village, Connecticut).

informality or take on the tautness of disciplined line. At one extreme, they blend with natural features and at another, enter into the sophistication of modern architecture. Because they originated in widely differing habitats, there are varieties adaptable to almost any situation. Formality with herbs recalls measured patterns in edgings and knots and cleverly arranged paths and beds. Informality has a visual effect that is pleasantly relaxed, as in the restoration of a colonial American housewife's luxuriant tangle of herbs and cherished plants, or an English cottage garden. For several hundred years cottage gardens have been the small home-gardens of England's towns and villages. They were mainly long-continuing gardens, slow to change in plant and style. They produced a surprising quantity of flowers, herbs, vegetables and fruits, and a visitor to England still looks forward to seeing them as part of the scenery. Their comparative naturalness inspired 19th century garden design and impressions of color and season. Landscaping with herbs borrows from the formal and the informal, with its own freedom and constraints.

Herbs are as available for use in landscaping as they are in a garden, and one should note a few cautions before designing and planting with them. Allergenic, poisonous and powerfully medicinal herbs must be located safely beyond touch and taste. Pesticides should be non-toxic to humans, pets, bees and birds. Conformance to Latin names is necessary for herbal uses and for botanical accuracy. The owner and landscape architect share a responsibility to avoid herbs whose spread might prove detrimental to a locality and agriculture. Also, because they can be put to use, some herbs may need the visual compensation of other plants to fill in and mask when they are recovering from harvest or left to go to seed. This is a slight, but possibly required, factor in planning their succession of interest.

Examples: Lamb's Ears. For best foliage, one should sacrifice the flowers. There is, however, a non-flowering variety, 'Silver Carpet'. The silvery leaves are so deeply velvety that Lamb's Ears is a most appealing herb, formally and informally. Planted in sun, it picks up the color of lichens from more distant shade, and it is at home in sunny, naturalized areas, old-fashioned garden, edgings and blocks, with rocks, and in the landscaping for a skyscraper.

Angelica. Angelica offers an illustration of a landscaping dilemma with herbs. In its first year, Angelica is prettily leafy and an herb for middle ground. The second year, it sends up lanky flower-stalks and briefly accenting flower-heads and is for backgrounds. If it is allowed to self-sow, to grow naturally in place year after year, it looks dreadful. The best handling of Angelica is either to cut it back at some stage in its second year and compensate with plants of intermediate height, or to allot it space where its deterioration does not matter and one can dig up seedlings at will for transplanting.

When combining herbs and other landscaping plant-material it may help to think in "threes" and anticipate a design's unfolding:

the dominating, the supporting and the ambassador to the next. Each unit should be a single variety but may have several individual plants and clumps. The accent or contrast dominates; it draws immediate attention. The supporting is sympathetic. One relies upon it to set off the dominating and compensate where there is a gap or declining growth. The ambassador to the next is the connecting link between its "three" and the nearby grouping that is strongest visually. It is by no means a rule to think in "threes", simply an aid to visualizing, and one may not want "threes" at all, as when planting beside a rock, a tree or a garden accessory.

Examples: Peony. Dominating in flowers, it might play a supporting role or be an ambassador as a foliage plant.

Lavender (Lavandula angustifolia), thyme and Germander (Teucrium chamaedrys) could be "threes" in several designs: Germander in a clipped edging with Lavender on one side and on the other a path with creeping thymes among flagstones; Germander in a knot pattern with low thymes for filling and Lavender for accent in the knot or the background: Germander, Lavender and the tallest thymes growing informally together.

Where may herbs serve in landscaping? They belong wherever ground covers and foreground planting are wanted to enhance and bring unity. They also belong where vistas widen and setting becomes scenery.

Add herbs to transition zones of light, soil and scene. Let unusual foliage, height and mass establish distance and perspective and beckon to eye and mind. Evoke a smile with fragrance in the air and flowering for hummingbirds and butterflies. Improve the appearance of a garage or grading with herbs and at the same time create interest. Enliven the routine quality of year-round foundation evergreens and flowering shrubs with herbs that attain summer-shrub stature. With low-growing herbs, soften an edging too brightly flowered, a dividing-line too sharply encountered. The taller herbs that grow quickly enable temporary summer landscaping by form as well as foliage, and at moderate cost. Many of these herbs die, or die back to the ground, in winter and might be practical for areas which later receive winter snow-slides and plowed snow. If a house lot has room for only one tree, a drift of ground cover herbs and earliest spring bulbs under it seems magical.

Rock gardens are an ideal environment and setting for many herbs, in particular, the delicate wildflowers of herbal use. One must distinguish between a rockery, which is a pile of rocks and soil, and a rock garden, which is a designed and carefully constructed habitat conditioned by rocks. For landscaping, both local rock and rock that is imported will not look natural or in place unless they bear some relation to the geology and rock-weathering around them.

Herbs are more "contemporary" than may be supposed, combining well with landscaping concepts for modern buildings, abstract



A woodcut of plants from Das puch der natur. The German text of Das puch der natur is translated from a thirteenth century Latin compilation written by a student of Albertus Magnus (Bishop of Ratisbon, 1193-1280). The woodcuts on page 238 and above appear in the reverse order in Das puch der natur, which discusses man, animals and plants in an order which descends through creation according to the medieval Christian conception of a natural hierarchy.

sculpture and today's trend toward plantings in sand, stone chips, pebbles and organic mulches that reflect an Asiatic influence. To heighten natural features, there are herbs for landscaping beside water and every sort of path, and up and down slopes, terracings and rock faces. Herbs are supreme for merging space that is maintained with natural windbreaks and meadow and woodland boundaries and can be the native plants to remind the viewer of locality and season. In certain cases their history also may make them appropriate. They retain distinction, and their foliage can achieve a painterly joy. It even is possible to landscape totally with an herbal criterion; there are trees and shrubs which have herbal usage.

Container growing is suited to a number of herbs, whether in the tub or planter that accents or the opening in pavement or masonry wall that is, in a sense, container-growing. The newest structural containers are designed for planting at various levels within a limited space, perhaps for children, the elderly and the handicapped. Containers answer questions of special plant requirements and are a convenience in replacing plants past peak and holding over nonhardy perennial herbs for the winter.

As with most plants, a selection of herbs is often narrowed by environment, plant to plant compatibility, cost and maintenance. How one starts to design and select matters less than making a realistic advance appraisal of the site and of the care that one could provide. Before deciding upon plants, try to see them growing locally, in the wild or as escapes and under cultivation. Be alert for satisfying and successful combinations. Jot down effects in nature that might be translated, perhaps on a far smaller scale. Where is it that plants really grow, and why do ferns seem cooling on a hot day and autumn leaves more vivid in front of conifers? Stay true in design and planting to the landscaping's basic intent. With herbal use stressed, there are temptations among the ornamentals and garden hybrids within a genus, as among the salvias and artemisias. One can so easily include too much.

Example: Rose. Queen of flowers and fragrance, the rose is honorably herbal. There are, of course, roses for formal, informal, naturalized and wild areas. Those associated with herb gardens are the old roses with heady fragrance. All the same, herbs are ongoing, and in landscaping I think it reasonable to substitute a suitable modern rose for a rose whose flowering is brief and whose form and foliage fall short of design purpose.

Foliage, above everything else, keys herbs for landscaping. Almost any texture, color, outline and scale one could wish can be found in herbs and almost any degree of airiness and stability. Foliage is happiest when pertinent to its surroundings: purple herb foliage to repeat tree or shrub foliage color, the ferny Sweet Cicely where a fern might grow, or nicely placed gray foliage contrasting with autumn's crimson and gold. Green herbs skillfully handled can weave carpet or tapestry. Those of non-green and variegated foliage are not new in landscaping, simply in opportunities and combinations that carry out a contemporary mood and idea. Paler greens highlight the deeper greens, perceptibly but without marked contrast. Texture and leaf outline, like color, contrast and accent, increase and diminish and emphasize. It is possible to emphasize the worst in design, but a repeated foliage characteristic sensitively planned is a delight for cohesion and continuity. To foliage one assigns most of the visual impact of herbs in landscaping and much of the design's progression.

Form and foliage interplay. At a distance, form is often one's first visual clue to a plant's identification and thus, indirectly, to the general ecology of the setting and how well a chosen plant fits in. Since herb flowering frequently lacks significance, form and foliage are major components of a focal point with herbs. The more dramatic these are, the more restrained their placing and repetition should be. Otherwise, they overwhelm. Physically, form and foliage may seem to determine the reliability of plant combinations in the competition for air and sun, but it is the root systems in close contact that have the final word.

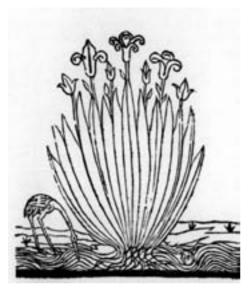
Example: Lady's Mantle. Lady's Mantle is a plant unto itself, refusing to mingle casually. One could design with it for foliage, color and flower, but visualizing with it for form is also apt. As a modest accent, it might rest a leaf upon a step and be admired from above for its patterning and fairy tale sparkle of dew; under favorable conditions it has been massed effectively. Singly or not, it stands on its own in all respects.

Santolina. Ideal for their foliage color, the santolinas may seem artificial. Their value for form is their being shrub-like accents (Santolina neapolitana) and their acceptance of clipping (S. chamaecyparissus, S. virens). Flowering is attractive when it begins but spoils the quality of the foliage for weeks afterward.

Color is not merely for contrast. In flower, which may not last, and foliage, it widens or shortens distance, heightens or suppresses a curve, compensates in leaf for spent bloom. It upholds design strength across and beyond and emphasizes dimension. Where there is autumn change, there is design change. Color stimulates; it is restful; it balances; and it is a visual bridge.

Examples: Butterfly Weed. Exceptionally rich orange flowers are vibrant with blue in the landscape: blue flowers and water and sky. After the blossoms the vertical seedpods are sufficiently interesting to transfer attention to themselves.

Thymes. No color in herbs is more engaging than an expanse of Creeping Thyme in flower. Famed in rock gardens, along paths, among steps and flagstones and for garden seats, all hardy thymes offer dainty yet sturdy landscaping material, although they do not forgive a hostile environment. Try a spilling of thyme, starting at the



IRIS. A woodcut from the Latin Herbarius, Vinceciae, Magistrum Leonardum & Guilielmum de Papia Socios, 1491. The Latin Herbarius is a fifteenth century compilation of classical and Arabian authors based on a manuscript of about 1350. The earliest edition of this work was printed by Peter Schöffer at Mainz in 1484.

top with a golden thyme and darkening down in Caraway Thyme. Fill a knot pattern or an opening left in paving with low thymes of different foliage color and texture. The tallest thymes are delightful small bushes.

Golden Feverfew. In a border or in "threes", Golden Feverfew's chartreuse-green foliage has design merit, with or without flowers. It leads the eye to ground level where an underplanting is desired, given enough growing-space and sun. The leaves stay presentable over a long period.

Flowering and fragrance are in some measure expected where there are herbs, and one could do more to plant fragrant and flavorful herbs at enjoying height. In landscaping with herbs, foliage color may supersede flowers, and flowering, flower fragrance. One might prefer to design, for instance, with the sage leaf rather than the flower, and plant hardy lavender for blossoming, with fragrance a bonus. Some herbs are already common because they are popular garden flowers. An herb that is, or resembles, a wild plant, like Beebalm and Borage, seems natural although cultivated. Unfamiliar color, as in White Borage flowers, is noteworthy but not automatically an accent. With herbs in landscaping, one should be wary of fragmenting visual impact with dots and dabs of vivid color. Farcarrying white seems larger in area and affects perspective.

Examples: Scented Geraniums (Pelargoniums). Such favorites for container and border, wall and terrace, herb gardens and gardens for the blind, might venture further into landscaping, despite their nonhardiness. Theirs is a natural beauty with much variety in form and foliage, scent and flavor. Their unassuming flowers invariably please. They may need protection from acquisitive visitors.

Hardy Lavenders. The grayed tones of some lavenders are valuable for foliage color. Flower interest varies. Lavender is an herb which should be planted in clumps and drifts and low hedges, especially when it has flowers to make a fine display. Few herbs center more pleasure in fragrance. The twisting branches of a gnarled old specimen are picturesque for designing with form.

Rosemaries. Herbs without peer in landscaping wherever they are hardy, they have to be grown as temporary plants in cold climates. Tall-growing and bushy rosemaries are wonderful against rock, wall and screen fence and in big containers. Prostrate rosemaries star in window boxes and hanging baskets and wherever they can sprawl gracefully across or down. The entire plant has fragrance and attracts.

Herbs for flavor migrate to the kitchen doorway if not conveniently available elsewhere, but when landscaping, scatter them. The fun of nibbling a spicy leaf while one strolls and weeds is an herb benefit.

Examples: Mints. Some mints are eye-catching in form and foliage; almost all have universal appeal because of pleasant flavor memories. Flowers may be attractive, as in Spearmint, or inconspicuous. Link together groupings of openly-spaced, medium height herbs with the random stitchery of Pineapple Mint. Plant velvety Applemint for informal height. Where there is no foot traffic, Corsican Mint might carpet small areas. Controlled by soil barriers and in partial shade, perhaps near a pool or fountain, circles of mint set into white pebbles would cool and entice. For naturalizing on somewhat moist banks by brook and pond, mints are ever among the first plant choices.

Wintergreen (Gaultheria procumbens). The close-up is welcome where so much in landscaping focuses on distance. Wintergreen is an herb which has some applicability to natural or naturalized landscaping, and it has leaves to savor. One might reserve it for a partly shaded sitting place. That it is evergreen is an asset; that its flavor refreshes is happy coincidence.

Wild Marjoram. Wild Marjoram could enhance a flower garden. In landscaping, its dense, tough rooting establishes it against competition, but it needs sun. Above soft leaves, numerous tiny pink flowers go to seed with continued appeal and an occasional late blossom. Wild Marjoram develops into a drift or ground cover of middle height or a generous patch within a diversified planting. The Golden Marjoram is frequently grown in English gardens.

"Weedy" herbs seem odd to include, but a weed to one person remains a useful herb and plant for another. The weedy herbs might well serve in natural boundary zones, shrubby windbreaks and harsh environments where it is imperative to start things growing. However, avoid the herbs with bad habits: the seriously rampant, like Goutweed; the invasive, like Pokeweed.

Examples: Tansy. Admittedly, Tansy is coarse-growing and coarsely aromatic. But Tansy has a rough charm and, expertly grown, creates a thick, informally attractive summer hedge. It seems designed for a meadow fence, on the side away from the field, and to be among wild plants near the sea.

Comfrey and Elecampane. Their scale provides a massive foliage accent. In spite of their leaf size, both have flower interest, with honors going to the pink-flowered Comfrey.

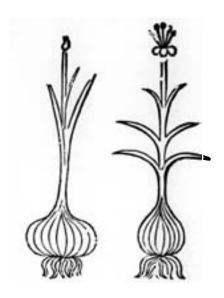
Goldenrod. Goldenrod turned princess in Europe where it was hybridized for gardens. Dwarf to giant, the goldenrods look well in sunny landscaping if controllable and are not now regarded as a major cause of hayfever. Goldenrod is a seasonally important beeplant and unforgettable when visited by a migration of monarch but-

Joe-Pye-weed. Nondescript during spring and early summer, it is worth planting for its smoky pinkish-purple flowers which appear July-September. It blooms with goldenrod but is less willing to live in dry conditions. It is for background and natural areas and can be invasive in damp ground. It is not too difficult to control in a maintained landscaping.

Maintenance is only partly a combination of design and what one is willing to invest in cost and effort. If a plant likes the environment it is asked to live in and live with, it grows. Therefore, plant and placing have to agree from the roots up for easiest care and maximum effect if one is to keep any plants in a design. Most herbs like an average, slightly acid soil, some sun, a helpful circulation of air, good year-round drainage, adequate moisture and normal garden care. The safest fertilizers are compost and minerals generally present in bonemeal and seaweed or fish fertilizers. Weak growth is often traced to over-fertilizing, too much water or poor light.

If an herb should do well and doesn't, move it or change its companions. Shield and mulch against excessive sun, and perhaps incorporate stones in mulch or soil for a cooler root-run. Raise a bed and lighten soil for better drainage. To retain moisture, dig in humus suited to the herb's soil preference. Before planting, check the soil for grubs and cutworms, and also install any soil barriers against unwanted spreading. Cutting off dead flowers will prevent rampant self-sowing. To thwart self-layering, prop the lower stems so that they cannot touch ground by installing a wire hoop under them or letting the rim of a soil barrier extend a few inches above the soil. Try to group plants that share special soil and maintenance needs or must have winter covering. Enough cannot be said about forethought and simplifying design to lower cost and upkeep and allow for eventual plant and landscaping maturity.

Once landscaping has been seen, a door opens to one's return. Towards it reach the final herbs, with a last fragrance. After bringing herbs into the house and the garden, landscaping with herbs is a logical next step. It seems reasonable to forecast that the landscaping of the future will stress economical plant material and maintenance in shrinking space, while contributing to the home and table. Surely herbs will be there for usefulness and beauty, and the older herbs will grow beside herbs now unknown to us. Perhaps we are kindlier because herbs were often in kindly human hands over the miles and centuries. Herbs still travel with people; in landscaping, the "ambassadors" to nature, and in our lives, the "supporting".



ALLIUM. From the Latin Herbarius. The Latin Herbarius is arranged alphabetically, not by any features or characters of the plants it describes.

# Some Herbs for New England

Deciding which plants are "herbs" and how far to go with varieties is somewhat open to question. An accumulation of lore and tradition parallels usefulness. Flowers bring numerous plants into the category of herbs as bee-plants. Some excuse is found for including an ornamental plant if historically it was grown with herbs in a garden motif. Lists from old herbals and manuscripts persist, and a new group, the wild plants for food, flavor and emergency survival, needs definition. Then there are the plants with centuries of use in household and barn, and for crafts and commerce and religious purposes. As one delves into plant uses, herbal eligibility is never-ending!

With maintenance in mind, I have tried to gather from many sources herbs which contribute visually in a landscape, realizing that someone else's list might be very different. Hardiness further north than Zone 5 is not noted; tenderness is mentioned where sources mention it or it has been experienced. Common sense is needed and so is reasonable expectation, but dare to try a half-hardy herb and a thought for landscaping.

# Kev

A — Annual Po — In some way poisonous **B** — Biennial Q — Acquire the original plant **C** — Container growing possible S — Grow in full sun

**C** — Container growing best Sh — Grow in partial shade H — Named hybrids or clones Sh — Grow in shade

available **T** — Tender, not hardy N — Native VI — Visual impact P - Perennial

I — For foreground II - For middle ground III — For background

4 — Start seed indoors 1 — Sow seed in spring 5 — Increase from cuttings 2 — Sow seed in autumn, or 6 — Increase by division self-sowing 3 — Repeat spring-summer 7 — Increase from root cuttings

8 — Increase by layering sowings

#### Achillea. Yarrow.

(Compositae)

H,P,Q,S,2,6. Suitable for drier locations and poorer soils. Remove spent flowers for best bloom.

A. argentea. I, to 6 inches. VI: carpet; silver foliage.
A. decolorans. II, to 2 feet. VI: clump; white flowers, toothed green leaves. Better soil, adequate moisture.

A. millefolium. Common Yarrow. II, 1-11/2 feet. VI: clump; weedy but "the most herbal". Accepts poor soils.

A. tomentosa. Woolly Yarrow. I, to 4 inches. VI: carpet; silver woolly foliage, yellow flowers.

#### Aconitum napellus. Monkshood.

(Ranunculaceae)

Not recommended. Dangerously poisonous and should be avoided.

Agastache foeniculum. Anise Hyssop.

P,S or Sh,1,2,6 (spring). III, to 4 feet. VI: flowers, openly branching form. Fragrant. Late summer violet-pink flowers attractive with perennials. Plant in groups, can be naturalized if controlled. Self-sows readily. Average soil.

Ajuga. Bugle, Bugleweed.

H,P,Q,Sh,6 (thinnings). I, to 8 inches. VI: variety in spring flower color and foliage, foliage the season long. Ground cover; underplanting for taller plants.

A. genevensis. Runnerless.

A. reptans. Has runners.

# Alchemilla. Lady's Mantle.

(Rosaceae)

P,Sh,2,6. Adequate moisture; avoid very hot conditions.

A. vulgaris. II-III, to 1½ feet. VI: the whole plant; sprays of tiny yellow to yellow-green flowers in June above soft-green fanshaped leaves (var. mollis has the best flowers). For accent or contrast, in groups or massed. Remove flower stalk to the ground after blooming.

A. alpina. I, to 6 inches. Carries the pleated leaf motif to the foreground of the rock garden.

Allium. Onion. (Liliaceae) C,H,S,1,2,6. Many decorative or vegetable garden choices. Average to good

soil. IMPORTANT: keep all of these from grazed areas, where they may

badly affect the quality of dairy products.

A. porrum. Leek. B. III, to 4 feet. VI: dense round umbels of pinkish flowers in summer; the second year, seed while green; buds look hooded. For accent, in groups. Best in richer soil.

A. tuberosum. Garlic Chives. P. I-II, to 1½ feet. VI: white flowers in summer, flattened leaves. Use in clumps with perennials, or almost anywhere.

#### Aloysia triphylla. Lemon Verbena.

(Labiatae)

C,P,S,T,5. VI: foliage color. Fragrant. Frequently grown as an annual, though it grows to full shrub size. Seldom flowers out-of-doors in the North.

#### Althaea. Mallow.

(Malvaceae)

A. officinalis. Marsh Mallow. P,S,1,5,6. III, to 6 feet. VI: pink summer flowers, soft green foliage; summer shrub stature. A good coastal plant. For naturalizing and as foreground accent group to a vista.

A. rosea. Hollyhock. B,S,1,4. III, to 6 feet or more. VI: height and flowers. Use by house walls, garden walls, and fences; and in old-fashioned settings. Raise new plants yearly. Average garden soils, but will tolerate poor soils.

#### Amaranthus hybridus var. hypochondriacus. Prince's Feather.

(Amaranthaceae)

A,1. III, to 6 feet. VI: summer flowering and height. Weedy, but effective when well placed. Good in poor soils.

# Angelica archangelica. Angelica.

(Umbelliferae)

**B,Sh** or possibly **Sh,2,4. III**, to 5 feet (for **II**, treat as an annual). **VI**: foliage; briefly the second year, its flowering and the seeds as they first appear. Do not overcrowd or allow to dry out.

Anthemis tinctoria. Golden Marguerite.

(Compositae)

C,H,P,Q,S,4,6. II-III, to 3 feet. VI: summer flowers. Needs more attention in garden settings than in natural ones. Poor sandy soils.

# Antirrhinum majus. Snapdragon.

(Scrophulariaceae)

H,P but may be grown as A,T,4. II, 1-2 feet. VI: flowers, effectively massed for color. For garden settings, borders, and where the color is set off to its best advantage.

# Arctostaphylos uva-ursi. Bearberry.

(Ericaceae)

N,P,Q,6.8. I, to 3 inches. VI: the whole plant, year-long. Where it does well, a fine ground cover. Also a mat for rock/wild garden, and useful for naturalizing and rocky slopes. Acid, light, or sandy soils; salt tolerant.

# Arisaema triphyllum. Jack-in-the-pulpit.

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N,P,Po,Q,Sh or Sh,2. I-II-III, to 2½ feet. VI: the whole plant, through the summer; brilliant red fruits in autumn. For naturalizing in rich moist woods, openings in shrubbery, and for the wild garden, in groups.

#### Armeria maritima. Sea Pink, Thrift.

(Plumbaginaceae)

H,P,Q,S,2,6. I, 3-6 inches. VI: the whole plant; pink or white flowers; tufts and carpet. A substitute for mat-forming pinks where these would not do well. For rock gardens, informal edgings, seashore settings as appropriate. Needs good drainage, sandy soil.

#### Artemisia.

(Compositae)

Many are weedy and extremely invasive.

A. abrotanum. Southernwood. P,Q,S or Sh,5,8. III, to 4 feet. VI: summer shrub stature; finely divided gray-green foliage. Aromatic. Good soil and drainage.

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A. arborescens. P,Q,T,5,8. II-III, to 3 feet. VI: worth effort for its silken gray foliage. Very tender, and only for full spring to midsummer.

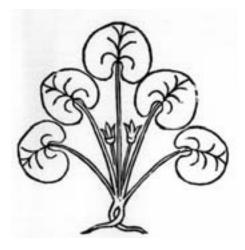
A. lactiflora. White Mugwort. P,Q,S,6. III, to 5 feet. VI: white-cream flowers; green foliage a good background to perennials. Spaced in groups, it is effective in garden and natural settings. Needs adequate moisture, mulch, and good garden soil to bloom well; in poor soil it is weedy.

A. ludoviciana var. albula. Silver King. P,Q,S,6. II-III, to 3 feet. VI: drift of silvery fine-leaved foliage; flowers inconspicuous. Try with hybrid goldenrods, achilleas, and near foreground shrubs with good fall color. Requires soil barrier; may need supporting to stay upright.

A. pontica. Roman Wormwood. P,Q,S.6. II-III, to 3 feet. VI: lacy graygreen foliage. Ground cover. Some browning in prolonged humid heat makes it undesirable for foregrounds. In mats in garden/shrub settings. A. schmidtiana 'Silver Mound'. P,Q,S,6. I-II, to 1 foot. VI: silvery graygreen, feathery mound early in the season. For edgings, borders and accents in garden/rock garden settings. Soil should not be too rich. Cut

back part way and water to renew in midsummer.

A. stellerana. Beach Wormwood. N,P,Q,S,6. II, to 2 feet. VI: gray foliage. Only for seashore garden or natural areas.



ASARUM. From the Latin Herbarius. The plants included in the Latin Herbarius are plants native to or cultivated in Germany.

Asarum. Wild Ginger. (Aristolochiaceae)

P,Q,Sh or Sh,2,6,7. I-II, to 10 inches. VI: foliage.

A. canadense. Wild Ginger. N. Carpet or ground cover, clumps, less formal settings, naturalized areas.

A. europaeum. European Wild Ginger. Glossy green foliage. Clump or ground cover; more formal settings. A good accent clump to a rock or ledge background, or by steps and garden structures.

Asclepias tuberosa. Pleurisy Root, Butterfly Weed. (Asclepiadaceae) P,Q,S,2,7. II-III, to 3 feet. VI: in groups, the whole plant, season-long; especially showy orange summer flowers. Effective in many settings; try it with Perovskia and with gray foliage/blue flowers. Light, poor soils.

Asperula odorata. Sweet Woodruff. P,Q,Sh or Sh,6,8. I, to 8 inches. VI: the whole plant, with starry white flowers in May. As a ground cover, an underplanting to tall shrubs or naturalized in woodlands, it is a favorite. Adequate moisture but good yearround drainage, and humusy soil. It will not have the best green color if planted in sunny locations. Install soil barrier to 2 inches above soil surface to prevent its creeping into other plants.

Baptisia australis. Wild Indigo, False Indigo (Leguminosae) N,P,Q,S or Sh,1,2. II-III, to 4 feet. VI: the whole plant, season long; especially the blue-purple flowers in early summer. For the garden or the wild garden, or naturalized in open areas or on slopes. Has been used as a hedge. Average to good soil, adequate moisture.

Borago officinalis. Borage. (Boraginaceae) A,S or Sh,1,2. II-III, to  $2\frac{1}{2}$  feet. VI: the whole plant; nodding, pink into blue, starry flowers with black anthers cone-like in the center; hairy green leaves and stems. In full sun may be smaller than in light shade. Excellent for temporary plantings at levels permitting full view of the flowers. There is also a white-flowered Borage.

Calluna vulgaris. Heather, Ling. (Ericaceae) H,P,Q,S,5 (tip), 8. II, shrubby. VI: the whole plant, especially in flower. Best in drifts in sun on slopes where it will have adequate moisture. Also a good specimen plant. Form and flowers vary. Choice of named clones prolongs the blooming period. Good for seashore gardens and landscaping.

Caltha palustris Marsh Marigold. (Ranunculaceae) P,Q,S,6. I, to 1 foot. VI: the whole plant; shiny yellow flowers and green leaves in early spring. For bog gardens and naturalizing in swamps and in shallow water of small streams. Disappears in summer.

Cassia marilandica. Wild Senna, Midland Senna. (Leguminosae) N,P,S or Sh,1,6. III, to 5 feet. VI: of value for midsummer yellow flowers and fall yellow foliage. For sandy or gravelly soils, roadsides and windbreak thickets. Control roots and seeds. Will "landscape" areas difficult to naturalize, but may itself become difficult.

Celastrus scandens. Bittersweet. (Celastraceae)
N. Vigorous woody vine requiring male and female plants to produce its well known yellow and orange-red berries. Should be avoided; it can become complete disaster. May I quote my father? "Your mother wanted a little bittersweet for flower arranging. Now what do we do?"

Centranthus ruber. Red Valerian, Jupiter's Beard. (Valerianaceae) P,S or Sh,1,6. II-III, to 3 feet. VI: carmine flowers in summer. Not the medicinal Valerian. Here, probably best in garden settings and borders. To control spreading, grow in poor dry soils. Use some lime.

Cerinthe major. Wax Flower, Honeywort. (Boraginaceae) A or B,Sh,1,2. II, to 1 foot. VI: the foliage is a green suggesting coolness; the yellow and brownish flowers recall an old-fashioned chintz. Modest, yet leaf color calls attention to it. Best in limited numbers of groups with annuals and perennials in a foreground to shrubbery. Average soil, adequate moisture.

Cheiranthus cheiri. Wallflower, Gillyflower. (Cruciferae) B (treat as A), 1. I-II, to 1½ feet. VI: fragrant flowers in a wide choice of warm colors — yellows, reds, bronzes. Worth some effort for special settings and late spring pleasure. Well-drained soil with some lime, adequate moisture, cool climate. It cannot survive a real heat wave.

Chelone glabra. White Turtlehead. (Scrophulariaceae) N,P,Sh,1,2,6. III, to 3 feet. VI: a single specimen grows to a clump; white to pinkish flowers; foliage for dark green contrast. For the wild garden, or for naturalizing on the banks of streams and ponds. Will accept drier soil if shielded from the hot sun.



BORAGO. Woodcut from the German Herbarius. Mainz [Peter Schöffer], 1485. The German Herbarius was printed in Mainz a year after the first printing of the Latin Herbarius. It is not a translation of the Latin Herbarius, but largely an independent compilation. Agnes Arber maintains that the woodcuts of the German Herbarius remained the highest achievement of botanical illustration until Brunfels's Herbarum vivae eicones (see page 269).

Chenopodium botrys. Jerusalem Oak. (Chenopodiaceae) A,S,1,2. I-II, to 2 feet. VI: of value in groups for arching sprays of densely packed, tiny greenish flowers; seeds prolong the effect. The whole plant is aromatic. Leaves, which resemble those of oak, are slightly bronzed. Good in sandy or gravelly soil.

Chrysanthemum parthenium 'Aureum'. Golden Feverfew. (Compositae) C,P,S or Sh,1,2. I-II, to 2 feet. VI: chartreuse-green decorative foliage, chamomile-like white flower heads with yellow centers. Space or bring together. For garden settings, borders or the foreground partly under tall shrubs in sun. Remove flowers for best foliage. Foliage survives first frost.

Cimicifuga racemosa. Black Cohosh, Snakeroot, Bugbane. (Ranunculaceae) N,P,Sh or Sh,6. III, to 8 feet. VI: flowers, white in long racemes high above pleasing green foliage in summer. For garden settings, the wild garden, naturalizing. Needs a cool, moist, humus-rich soil.

Cleome spinosa. Spiderflower. (Capparaceae) A,H,S,T,1. III, to 3 feet. VI: white to pink flowers. Usually for garden settings, but it can be an accent by itself beside a gate or a corner of a path, or as a plant with others in beds or borders. To me it always seems rather a stranger, but it has long been popular. It has been used successfully in rooftop gardening.

Convallaria majalis. Lily-of-the-valley. (Liliaceae) H,P,Po,Q,Sh or Sh,6. I, to 8 inches. VI: the whole plant. Flowers cherished and fragrant, white (some variants pinkish). One of best underplantings to trees and shrubs. Shady ground cover, but may be invasive. Best in light soils with humus. Remove fruits where children might taste them.

**Delphinium grandiflorum.** Larkspur. (Ranunculaceae) P,Po,S or Sh,1,6. III, to 4 feet. VI: blue flowers in summer, finely cut foliage. There is a white form.

Dianthus. Pink. (Caryophyllaceae) Just about any fragrant dianthus variety is accepted in herb gardens, especially the perennial, mat-forming pinks. Two of long tradition are: D. barbatus. Sweet William. B,H,1. I-II. Average garden conditions.

D. plumarius. Cottage or Grass Pink. H,P,Q,1,4,5. II, to 18 inches. Average garden soil.

For both, good drainage, not too hot sun, some lime.

Dicentra spectabilis. Bleeding Heart, Lyre Flower. (Fumariaceae) P,Q,Sh,7 (early summer). I-II, to 2 feet. VI: the whole plant for grace and color, especially the arching stalk of pink "hearts". Well known in garden settings, there are places for it in transition zones to shade. It yields interest to other plants quickly when through blooming. Bloom is May-June, and it can be charming with wildflowers. There is a white-flowered form. Moist deep soil but good drainage.

Digitalis. Foxglove. (Scrophulariaceae) Po,Sh,1,2,4. II-III, to 3-4 feet. VI: the flowers, especially in named hybrids. Many settings. Keep from grazed areas if used in naturalizing. For groups and drifts. Adequate moisture.

D. purpurea. B. Pink, purple, or white flowers, often spotted within.

D. lutea. B or P. Soft vellow flowers.

Dipsacus sylvestris. Teasel, Brushes and Combs. (Dipsacaceae) B,S,1. III (second year), to 5 feet. VI: in groups; weedy and prickly but of value for textural contrast, and for seed heads before the seed ripens. Leaves "cup" water around stem. Tolerates poor soil. Sow some seed yearly, selecting for largest seed heads. Should not be permitted to escape.

Echinops ritro. Small Globe Thistle, Steel Globe Thistle. (Compositae) H,P,Q,S,1. III, to 3 feet or more. VI: the whole plant thistly; blue, spiky, round flower heads, before and in full bloom, leaves green above, silvery below. Adequate moisture but good drainage. Remove spent flowers to prolong bloom. May deteriorate in late summer. Background for the perennial border, but fore- or middle ground for such plants as gray Artemisias, Tansy, Goldenrod, Elecampane, Comfrey. Clumps.

Echium vulgare. Viper's Bugloss. (Boraginaceae) B,S. II, to 21/2 feet. VI: the whole plant. The bristly hairs may cause a skin rash, and it is weedy. But it has some value for dry soils and summer flowers which open pink and become blue. There is a white-flowered form.

Epilobium angustifolium. Fireweed, Willow Herb. (Onagraceae) N,P,Q,S,1,2. III, to 5 feet or more. VI: showy rose-colored flowers (also a white form). Controlled naturalizing, in clearings, fire-desolated areas. Can become invasive, crowding out native wildflowers. Can be transplanted from the wild. N.B.: The Willow Herb of swampy ground, E. hirsutum, is similar and toxic, and should also be planted with caution. The two species must not be confused.

(Berberidaceae) Epimedium. Bishop's Hat, Barrenwort. P,Q,S or Sh,6. I, to 1 foot. VI: dense foliage, spring flowers. Foreground mat in garden setting or the wild garden, and a fine ground cover under tall shrubs and trees. Adequate moisture. Will tolerate more sun in a rich-

 $E. \times rubrum$ . Red margin to yellowish unfolding leaves.

E. grandiflorum. H. Bronze fall color.

Eryngium. Eryngo. (Umbelliferae)

P,Q,S,6,7. VI: the whole plant, for accent; spiky. For dry, poor soil.

E. amethystinum. Amethyst Eryngo. To 1 foot.

E. maritimum. Sea Holly. Light blue flowers, to 1 foot.

Eupatorium purpureum. Sweet Joe-Pye-weed. (Compositae) N,P,S or Sh,1,2,6 (spring only). III, to about 6 feet. VI: smoky-pink flowers in late summer-early fall; somewhat weedy. Fragrant. Of value for its unusual color and season of bloom. Wild garden or naturalized. Possible background plant with perennials. Adequate moisture, open areas.

Euphorbia marginata. Snow-on-the-mountain. A,N,Po,1,2. II, to 2 feet. VI: bracts and leaves with white margins. Early to late summer flowering gives it a long season. A plant for showy groups and contrast, chiefly in garden settings. It is somewhat invasive. In spite of its white markings, it is "supporting". It lacks the character of a dominating plant.

Filipendula vulgaris. Dropwort. (Rosaceae) P,Q,S,6. I-II, to 2 feet. VI: fern-like foliage stays low and attractive; creamy-white flowers on long but not fully erect stems. Spent flower stalk should be cut to the ground. With perennials, in rock or wild gardens. The double-flowered form is somewhat smaller. Best in light, dry soils.

Foeniculum vulgare var. dulce. Common Fennel. P (treated as A), S,T,1,2. III, 4-6 feet. VI: fine-textured foliage; umbels of small, yellow, late summer flowers. Whole plant is anise-scented. For backgrounds and contrast. There are other varieties of fennel usually only for vegetable gardens.

Fragaria. Strawberry. P,Sh,1,2,6. I, to 8-12 inches. VI: the whole plant, season long. For naturalizing in carpets; or for garden settings in borders or edgings. Acid soil.

F. vesca. European Strawberry. Not reliably hardy, but it self-sows.

F. virginiana. Native wild strawberry of rougher pastures, drier soils. For all open areas.

Gaultheria procumbens. Wintergreen, Checkerberry. (Ericaceae) N,P,Q,Sh,6. I, to 6 inches. VI: the whole plant, evergreen, but may brown in winter, green to bronzy leaves; dainty whitish flowers and red berries. Can soften the edge of an unset-flagged area in transition to shrubbery or natural wooded areas, and can be a charming mat for a wild garden or limited naturalizing. Acid, open woods; humusy light soil; adequate moisture.

Hedera helix. English Ivy. (Araliaceae) C,H,P,Po,Q,Sh,5,8. VI: clinging vine. Container-grown, it can be trained to resemble topiary. For ground cover. May need some winter protection.

Helianthus annuus. Sunflower. (Compositae) A,N,S,1. III, to 6 feet or more. VI: yellow ray flowers, dark purplish-brown disc flowers in late summer. Weedy and coarse, but cheering. For groups with large-scale plants in natural or naturalized areas, or along meadow fences in sun.

Helleborus niger. Christmas Rose. (Ranunculaceae) P,Po,Q,Sh,2,6. I, to 1 foot. VI: leathery, evergreen foliage; pinkish and whitish flowers in early spring. This is a plant to have where it can be an accent in bloom but not so prominent the rest of the year. For the wild garden, with shrubs, and for naturalizing. And for pilgrimage. There are other hellebores. This one is always desirable. Needs deep humus-rich soil, some lime, adequate moisture, but good drainage; year round mulch but especially in winter. Where conditions are unsuited, make a permanent raised bed to provide proper soil and soil depth.

Hemerocallis. Daylily. (Liliaceac) H,P,Q,S or Sh,6. II-III, to 1½-3 feet. VI: a long flowering season by careful selection. Hemerocallis fulva is the orange daylily that spreads and has become naturalized. Various daylilies have had herbal uses here as well as in Japan and China. For garden; massive edging to a path or drive; by door and gate, rock and wall; slopes and transitions in natural and cultivated areas. Some foliage browning after flowering. Needs good soil for best bloom and appearance.

Hesperis matronalis. Dame's Rocket, Sweet Rocket. (Cruciferae) H,P (or B?), Sh,1. III, to 3-4 feet. VI: summer flowers in white, mauve or purple on second year plants. There is a double-flowered form. For garden settings and some naturalizing as in transition to shrubbery. Needs good soil.

Hosta. Plantain Lily. (Liliaceae) H,P,Q,Sh or Sh (less bloom), 6. II-III, to 2 feet. VI: the whole plant, for foliage accents. Hosta albo-marginata has had herbal usage. As clumps or groups in garden settings, with shrubs, as accent by pool or bird bath, along ledge or wall. Try with Solomon Seal. Important in limited land-scaping and in transition zones of light and shade. Good soil, adequate moisture.

Humulus lupulus 'Aureus'. Golden Hops. (Cannabaceae) P,Q,S or Sh,5 (or by suckers). III. VI: vine, fast annual growth; hairy golden foliage (which may cause mild, brief skin irritation). Twines readily. Color brings light and contrast or accent and establishes distance.

Good on fences. Dies back in winter. Deep average soil.

Hypericum. St.-John's-wort.

(Hypericaceae)

The herbal H. perforatum is already an omnipresent weed, and it should not be spread into new areas, but kept for the record under garden control.

Hyssopus officinalis. Hyssop.

P,S,1,4,5,6. I-II, to 1½ feet. VI: flowers, shrubby form. A fine plant in garden settings and where color is needed in foregrounds to shrubs; in groups and double-planted for low summer hedging. Average soil, drain-

H. officinalis. Blue flowers.

H. officinalis 'Alba'. White flowers.

H. officinalis 'Rubra'. Pink flowers.

Iberis amara. Candytuft, Rocket.

(Cruciferae)

A,1. I, to about 1 foot. VI: white flowers. Sow in place. Shear after flowering if used as edging or foreground mat.

Impatiens balsamina. Garden Balsam.

(Balsaminaceae)

A,C,H,1,2,4 I-II, to 2½ feet. VI: foliage a cool green; flowers profuse, cheerful and summer-long; fruits amuse children. Effective when massed, especially in borders, edgings, and window boxes. Flowers are in shades of vellow, white, bright pink, and red. Remove seedlings of undesirable colors.

Iris. Iris, Flag.

(Iridaceae)

Tall Iris: P,Q,S,6. II-III, to 3 feet. VI: foliage; flowers in season. Average garden soil.

 $\tilde{I}$ .  $\times$  germanica. Bearded blue.

I. × germanica var. florentina. White or blue.

I. pallida. Bearded pale blue.

I. pseudacorus. Yellow Flag. Yellow flowers. For wet soils.

N.B. Do not confuse the Irises with Sweet Flag (Acorus calamus), which has an edible rhizome.

Lamium. Dead-nettle, Archangel.

(Labiatae)

H,Sh,P,1,6. I-II. VI: ground cover. Remove flowers for best foliage. Can spread. Limited interest for foreground or mat.

L. galeobdolon 'Variegatum' (Lamiastrum). Yellow, golden, to 1½ feet.

L. maculatum 'Album'. Silver spotted, to 8 inches; lavender flowers.

#### Lavandula. Lavender.

(Labiatae)

There are many varieties, most not hardy. All are for sun, adequate moisture, good drainage.

Two hardy lavenders:

L. angustifolia 'Hidcote'. Spreading.

L. angustifolia 'Munstead'. Dwarf, upright.

C,P,Q,S(4),5. II-III. VI: purple flowers, gray foliage. Drifts and clumps, low hedging. Many settings where fragrance would please.

Two non-hardy varieties:

L. dentata. P.Q. To 2½ feet. VI: green leaf. Sparser but longer flowering. Garden settings.

L. multifida. B,Q. To 2 feet. VI: foliage rather than flower. Rock garden.

#### Levisticum officinale. Lovage.

(Umbelliferae)

P,Q,S or Sh,2,6. III, to about 6 feet. VI: worth some experiments and possibly treatment as an annual; spring foliage like a light bluish-green celery deteriorates with flowering. Needs good soil, adequate moisture. Use fresh seed for best germination.

Liatris. Gayfeather.

N,P,S,1,6 (spring). III, to 4 feet. VI: purple or white flowers which open from top down on long erect spikes from midsummer into autumn. Suited to garden settings, the wild garden and naturalizing, but not in quantities that overwhelm. Will tolerate poor soil.

L. scariosa. Tall Gayfeather. Needs adequate moisture and grows in damp open places.

L. spicata. Spike Gayfeather. Light soil. The white form can take more moisture and heavier soil.

L. squarrosa. To 2 feet. Not so showy.

Lilium. Lily.

(Liliaceae)

H,P,Q. II-III. VI: flowers and their height above ground. Visual compensation may be needed after flowering when stem and foliage are left to complete the growing season. General culture: most lilies require sun, excellent drainage but adequate moisture, and a deep, neutral or slightly acid topsoil that is rich in humus. Avoid a fertilizer high in nitrogen and protect from mice and disease-carrying insects. Keep foliage dry when watering. Plant most bulbs 4"-5" deep, making sure that roots and bulbs are healthy and undamaged and the soil properly prepared. Where virus disease and Botrytis blight are serious, remove and burn severely infected plants and do not plant again until reasonably safe conditions are established. Hybridizing has given lilies more resistance along with new beauty and importance and a wide choice in form and color. Fragrance still can be a delight.

Some of the lilies with herbal uses are:

L. auratum. Goldband Lily. Late summer, 3-6 feet.L. canadense. Canada Lily. Moist ground, July, 2-6 feet. Color varies. Suitable for wild and naturalized areas.

L. candidum. Madonna Lily. Late June, 3½ feet. This is the lily of long herbal use and tradition, important in art and religious symbolism. It has travelled far and has been centuries in cultivation. New strains may lessen its unfortunate susceptibility to virus disease and Botrytis, and propagating by seed may reduce the spread of virus infection. Plant 1" deep.

L. martagon. Martagon Lily. Mid-June, 2-4 feet. Another historic lily.

L. monadelphum. Caucasian Lily. Early June, 4 feet. New bulbs may show no signs of growing until their second year.

L. superbum. Turkscap Lily. July-August, moist ground and acid soil, 6-10 feet. Suitable for wild and naturalized areas.

#### Limonium carolinianum.

(Plumbaginaceae)

Sea Lavender, Marsh Rosemary, Statice.

N,P,Q,S,1. II, 2-3 feet. VI: wiry branching stems of profuse, tiny, palelavender flowers above leathery basal leaves. Will tolerate marsh edge and drier soils inland. For naturalizing, rock or wild gardens, seaside areas.

Linum perenne. Perennial Flax. (Linaceae)
P,S,1,6 (spring). I-II, to 1½ feet. VI: plentiful blue or white flowers and delicate appearance. There should be a sufficient number of plants to see them as one approaches them, remembering that individual flowers do not last long and will not open unless there is some sunshine. For garden settings and rock gardens. Good drainage, light winter mulch.

Lobelia. Lobelia.

(Lobeliaceae)

N.P.S or Sh.1.2.6.

L. cardinalis. Cardinal Flower. II-III, 2-4 feet. VI: scarlet flowers. May be short-lived. Wet soils, stream and pond banks. Erect form combines well with mints where mints lead into moist sites. White form rare.



LILIUM. A woodcut from De historia stirpium, Leonhard Fuchs. Basle, Isingrin, 1542. Leonhard Fuchs was one of the four "German Fathers of Botany", along with the herbalists Otto Brunfels, Jerome Bock and Valerius Cordus. Fuchs's woodcuts were an achievement even beyond Hans Weiditz's illustrations for Brunfels's Herbarum vivae eicones (see page 269), which already marked a considerable departure from the schematic illustrations of the Latin Herbarius. Fuchs's accounts of approximately four hundred native German and one hundred foreign plants are arranged alphabetically.

L. siphilitica. Blue Cardinal Flower, Great Blue Lobelia. II-III, to 3 feet. VI: blue flowers. In garden soil with perennials. Groups for effect. There is a white-flowered form also. Will tolerate some wetness and light shade.

Lonicera periclymenum. Honeysuckle. (Caprifoliaceae) H,P,Q,S,5,6. VI: climbing vine; strongly scented creamy-white flowers from pinkish buds. For fences and garden structures, possibly over rocks.

Lupinus perennis. Sundial Lupine, Wild Lupine. (Leguminosae) P,Po,S or Sh,2 (fresh seeds). VI: pale lavender-blue spring flowers, divided light-green foliage. Not as showy as modern hybrids but more appropriate for naturalizing or for the wild garden. Slopes, edges of open woods, poor acid soil.

Lychnis. Campion, Catchfly. (Caryophyllaceae)
L. chalcedonica. Maltese Cross. P,S,1. II-III, to 3 feet. VI: stiff upright growth, scarlet flowers. With perennials in borders, and possibly some naturalizing. Accenting groups. Summer. Good drainage.
L. coronaria. Rose Campion, Mullein Pink. B or P (treat as A), S,1,2. II-III, to 3 feet. VI: woolly gray foliage. Flowers in summer. Use as above, but will seem more "natural" than Maltese Cross. Good drainage.

Lysimachia punctata. Yellow Loosestrife. (Primulaceae) P,Sh,1,6. II, to 2 feet or more. VI: mat or carpet of attractive, erect, yellow, early summer flowers. Has a place in a garden setting or naturalized area. Install soil barrier; needs control. Average to moist garden soil.

Macleaya cordata. Bocconia, Plume Poppy. (Papaveraceae) P,Q,S,1,6. III, to 8 feet. VI: vigorous growth, panicles of creamy flowers in midsummer. Backgrounds, possible summer screening. Install soil barrier.

Marrubium vulgare. White Horehound. (Labiatae) P,Q,S or Sh,2. I-II, to 2½ feet. VI: crinkled, textured, downy, gray-green leaves; downy lighter stems; outward branching form, more or less upright. It can be foreground to erect taller green plants, and has possible use in naturalizing. Average soil. Not always hardy.

Melissa officinalis. Lemon Balm. (Labiatae) P,S or Sh,1,2,6. II-III, to 2 feet. VI: the well-established clump is sizeable; light yellow-green foliage. Cut back to just below last flowers in midsummer and keep watered to renew foliage. Can be treated as annual. Self-sows freely. Where mint might be; some naturalizing. Not too acid soil. Common name is from taste and use of leaves.

Mentha. Mint. (Labiatae) Many and confusing. Try to obtain a division of a mint that pleases. For variety in foliage, form, and flavor: M. Bowles', M. M gentilis (golden form), M pulegium M, M crotundifolia, M spicata. The taller, spreading mints: full sun and adequate moisture for flavor. Soil barrier advisable in garden settings. To thicken old plantings, cut through both ways with a sharp knife when first growth appears in spring.

A quite different mint for special locations:

M. requienii. Corsican Mint. P,Q,T,(2),4,6. I. VI: in mats, very small and pungent. Treat as an annual. For foregrounds, rock gardens. Not for foot traffic. Self-sowing unreliable.

Mitchella repens. Partridge Berry. (Rubiaceae) P,Q,S or Sh,2,5,6. I, to 2 inches. VI: whole plant, year-long. Creeping ground cover for woods, wild garden, under small shrubs. Grown in sun in humusy soil with bark mulch, it will be very dense, almost leathery, and

yellow-green. Acid soil. Root the cuttings in Christmas bowls and living wreaths.

#### Monarda. Wild Bergamot, Horse Mint. N.P.Q.S.6.

(Labiatae)

M. didyma. Beebalm, Oswego Tea. III, to 3 feet. VI: summer flowers. For clumps in borders, wild garden, naturalizing. Garden popular (H). May need concealed support halfway. Some moisture, good soil, and air cir-

M. fistulosa. Wild Bergamot. III, to 3 feet. VI: lavender flowers. In drier sunny sites. For naturalizing, the wild garden. Both attract hummingbirds.

Myrrhis odorata. Sweet Cicely, Giant Chervil. (Umbelliferae) P,Sh,2,6. II-III, to 3 feet. VI: long-lasting ferny foliage; spreading umbels of white flowers in early summer, followed by interesting seeds. If not saving seed, remove flower stalk to ground after bloom. Whole plant has anise fragrance. For garden settings; by walls, naturalizing in humusy, moist soils or an alternative to larger ferns in clumps. Also, a decorative foreground, for planting with shrubs having colored foliage, or as a background for Vinca in permanent landscaping. Allow space — Sweet Cicely becomes a substantial clump. Adequate moisture.

Nepeta. Catmint. (Labiatae)

 $N. \times$  faasenii. Persian Catmint. P,Q,S,V,1,2. I-II, to  $1\frac{1}{2}$  feet. VI: graygreen foliage, lavender-blue flowers. For best foliage and continuing bloom, remove spent flowers. For garden settings, borders, drifts, or ground cover. Summer. Plants in groups. Try a "three" of Perovskia, Artemisia 'Silver Mound', and  $N. \times faasenii$ .

N. grandiflora. Caucasian Nepeta. Plant in groups. Accepts some clipping. Mauve flowers. Borders of perennials.

N. hederacea (Glechoma hederacea). Gill-over-the-ground, Ground Ivy. P,Q,S or Sh,2. VI: a weed but decorative, and of some value for its low creeping cover. It enters garden and landscaping here and there. Summer. Poor soil helps to control.

Nigella damascena. Love-in-a-mist, Fennelflower. (Ranunculaceae) A,H,S,1,2. I-II, to 2 feet. VI: airy form, delightful summer flowers, and puffed-up seed pods. Mixed shades in flower color -- pinks, blues, white — but a short season. Garden settings and borders, and to fill in or be "supporting".

Nymphaea odorata. Fragrant Water Lily. (Nymphaeaceae) N,P,Q,6. VI: lily pads and fragrant white to pale pink flowers. Quiet water to about 2 feet deep. Weight down roots when planting. For pools, plant in tubs and sink in place. Summer flowering. Invasive.

Oenothera biennis. Evening Primrose. (Onagraceae) B,S,1,2. III, to 4 feet. VI: weedy by day; plant a group where early evening flowers can be watched as they open in summer. Flowers have four broad, yellow petals. Select seed for largest flowers.

Origanum. Marjoram. (Labiatae) O. majorana. Sweet Marjoram, Knotted Marjoram. C,P (treat as A), Q,4. II, to 1½ feet. VI: soft gray-green foliage, small white flowers "boxed" by green bracts. Late summer. Shrubby and fragrant. A gentle plant to be supporting for a "three". Garden settings. Average soil. Not hardy. O. vulgare. Wild Marjoram or Pot Marjoram. P,Q,S,2,6. II-III, to about 2 feet. VI: whole plant; especially the pink flowers, and, when going to

seed, the red-tinged bracts. Dense mat, clumps, patches; garden settings



PAEONIA. A copperplate engraving from Hortus floridus, Crispijn vande Pas the Younger. Arnheim, J. Janson, 1614. Crispijn vande Pas's Hortus floridus closes the great period of illustrated herbals. With the scientific advances in botany during the seventeenth century the herbal gives way to medical pharmacopeia and botanical floras. Crispijn vande Pas divides the first half of his book into four parts for the seasons of the year, the peony shown here beginning the second part, summer.

O. 'Aureum'. Golden Marjoram. VI: foliage. May not be reliably hardy. Popular in English gardens.

Paeonia. Peony.

(Paeoniaceae)

H,P,Q,S or Sh,6. II-III. VI: flowers, but foliage holds its own. Large in scale. Garden settings.

P. lactiflora. Chinese Peony. To 3½ feet.

P. officinalis. To 3 feet.

P. suffruticosa. Tree Peony. To 4 feet or more.

Panax quinquefolius. American Ginseng. (Araliaceae) N,P,Sh,1.2. II, to 1½ feet. VI: whole plant, especially foliage, for carpet. Some value in shady gardens. For naturalizing. Rich woods, acid soil, adequate moisture.

Parthenocissus quinquefolia. Woodbine, Virginia Creeper. N.P.Q.S or Sh.1.8. VI: all seasons, especially fall berries and red foliage. Clinging, woody, rambling vine. Garden settings, or for naturalizing if controlled. Attractive foliage season-long.

Pelargonium. Scented Geranium.

(Geraniaceae)

C,C,H,P,Q,S,T,5. VI: form, foliage; flowers less important. Fragrant (may mimic other scents). Average garden soil.

Ten herbal choices, the basic ten of Susan W. Handy, past President and Medal of Honor, The Herb Society of America:

To 20 inches:

P. × citrosum 'Prince of Orange'. Orange scent.

 $P. \times fragrans$ . Nutmeg scent.

P. graveolens 'Minor'. Little-leaf Rose Geranium.

 $P. \times nervosum$ . Lime scent.

P. tomentosum. Small-leaved Peppermint Geranium. Peppermint scent. To 40 inches:

P. crispum 'Prince Rupert'. Finger Bowl Geranium, probably from its use (also a variegated form).

P. denticulatum 'Dr. Livingston'. Skeleton-leaf Rose Geranium.

P. graveolens. Large-leaved Rose Geranium.

P. quercifolium 'Pinnatifidum'. Sharp-toothed Oak-leaf Geranium.

P. tomentosum 'Clorinda'. Large-leaved Peppermint Geranium. Flowers well.

Perilla frutescens 'Crispa'. Purple Perilla.

(Labiatae)

A,C,S,1,2 (self-sows freely). II-III, to about 2 feet. VI: wonderful, dark purple-red, crinkly foliage, green-tinged by season's end; pink, half-hidden flowers. More enduring than 'Dark Opal' Basil, more "natural" in local settings. In groups for accent or contrast. Aromatic, insect-resistant.

Perovskia abrotanoides. Perovskia.

(Labiatae)

P,Q,S,5,6. III, to 4 feet. VI: whole plant; semi-shrub with silvery stems, light gray-green foliage; long-lasting lavender-blue flowers in July-August. Fragrant. Always leave several buds when cutting back in fall, and allow time to start new growth in spring. Its roots spread, making a sizeable but also controllable clump. Excellent for garden settings and in sunny foreground to shrubbery. By steps and terrace. For the latter, plant at same point on levels above and below for "flow" of bloom. Average soil, mulch. Perovskia atriplicifolia is similar but leaves are not so pretty.

Petroselinum crispum. Parsley. (Umbelliferae) B (best treated as A), C,H,1. I-II, to over 1 foot. VI: foliage the first year.

Can be allowed to self-sow the second year. Planted closely in good soil, it is worth experiments in blocks and groups, rather than just as edging. In containers for itself, or as contrast to other plants.

Phytolacca americana.

(Phytolaccaceae)

Poke, Virginia Poke, Native Pokeweed.

N,P,Po. I-III, to about 4 feet. VI: coarse, weedy, erect; purple fall fruit. Invasive, can be toxic especially when older; I wonder why it is listed for gardens. One to avoid.

Platycodon grandiflorus. Balloon Flower. (Campanulaceae) P,Q,4. II-III, to about 2½ feet. VI: the whole plant; glaucous stems and foliage, interesting buds and fresh seed pods, blue summer flowers. Borders, garden settings, in groups. May need staking. Well-drained soil.

Podophyllum peltatum. May Apple. (Berberidaceae) P,Po,Q,Sh,2,6. II, to 1½ feet. VI: the whole plant. For shady gardens or naturalizing, in patches and as ground cover. If a glimpse of fruits and flowers is wanted, plant at height for seeing these on terrace or slope. Open woods, humusy soil, adequate moisture.

**Polemonium caeruleum.** Jacob's Ladder, Greek Valerian. (Polemoniaceae) P,Sh,1,6. II, to about 2 feet. (For I also, as a possible contrast.) VI: blue spring and early summer flowers, foliage. In garden settings and soils.

Polygonatum biflorum. Solomon's Seal. (Liliaceae) N,P,Q,Sh,2,6 (in spring). I,II,III, to 2 feet. VI: the whole plant, especially the foliage on arching stems; pendent spring flowers. Shady gardens, woods, thickets, slopes. Where everyone would like it; a graceful plant excellent for wild garden and naturalizing. Slightly acid soil. There are other herbal types. This is a good one for a start.

Pulmonaria. Lungwort.

(Boraginaceae)

P. angustifolia. P,Q,Sh,6. I, to 6 inches or more. VI: very early spring flowers, dark pink into bright blue above and with plain green foliage. For foregrounds, borders, garden or wild garden, drifts and blocks, ground cover, edging. Blue Grape Hyacinth is pretty with it in spring. Adequate moisture, especially in hot dry spells.

P. officinalis and P. saccharata. Bethlehem Sage. (H). I,II,III, to 1½ feet. VI: spotted foliage, whitish on green. Later spring flowering. Clumps, in garden settings, wild or rock gardens. Can be an accent (early season when at peak), is always a contrast. Needs shielding from sun and watering at first sign of drying out, or foliage browns.

Pycnanthemum pilosum. Mountain Mint. (Labiatae) P,Sh,1,6. III, to 4 feet. VI: foliage. For naturalizing and wild gardens, but also for borders and places where its clump of foliage adds to landscaping. Some interest in its late summer flowers has brought it among garden flowers.

Reseda odorata. Mignonette. (Resedaceae) A,H,S,1. I-II, to 1½ feet. VI: the whole plant, especially the flowers. Fragrant and "supporting", in form and flower color. Add some lime if the soil is acid.

Rheum rhaponticum. Rhubarb. (Polygonaceae) H,P,Po,Q,S,6. III. VI: weedy but of value where its massive foliage and form are wanted in design. Leaves (not leaf stalk) poisonous. Not the usual medicinal rhubarb, but herbally used as well as being a popular food. Try 'Valentine' for cleanly-separating rosy leaf stalks. Rich soil.

H,P,Q,S,5 (seeds, experimentally). VI: flowers, especially pink or red, and form. All are fragrant. The older roses are of greatest interest for history and use. Many newer roses are descended from them. The following are best planted in good soil; they need space and bloom once in midsummer unless otherwise noted:

R. centifolia. Cabbage Rose. To 6'. Very large, round pink flowers with hollow centers. The Moss Rose so popular in Victorian times is R. centifolia 'Muscosa'.

R. damascena. Damask Rose. To 6'. The rose famous in attar of roses. Similar to R. gallica, its flowers are slightly later and smaller. The York and Lancaster Rose is R. damascena 'Versicolor'.

R. eglanteria. Sweet Brier, Eglantine. To 8' or more. Single, earlier pink flowers, arching form; foliage also scented; colorful hips. For fences and windbreak hedging.

R. gallica. French Rose. To 4'. Much loved is R. gallica 'Versicolor' — Rosa Mundi.

R. rubrifolia. Redleaf Rose. To 6'. Longer in bloom; small single pink flowers in clusters, decorative hips. Foliage and stems offer color contrast.

One should also mention the Rugosa Roses, increasingly sold for public and private landscaping, hedges and plantings by the sea. Many have good fruits for preserves and syrups and some value for fall foliage color. My favorites are: 'Frau Dagmar Hastrup', to 4'-5', silken, single pale pink flowers; and 'Schneezwerg', to 5'-6', semi-double white flowers all season.

Ruta graveolens. Common Rue, Herb of Grace. (Rutaceae) H,P,Po,Q,S,1,4,6. II-III, to 3 feet. VI: summer shrub stature, decorative glaucous foliage, yellowish summer flowers. Never in foreground in public places because the foliage can cause a painful skin rash. May die back in winter. Chiefly for garden settings, singly or in small groups. Spectacular with Thymus praecox 'Coccineus', Crimson Thyme, in flower. There are variants for bluer foliage, also a white-variegated one. Good drainage.

Salvia. Sage. (Labiatae)

A large genus herbally, and one to assess for herbal vs. merely ornamental uses. In general, the variegated seem non-hardy.

- S. argentea. Silver Sage. B. Very woolly and silky. First year, low and decorative. Weedy when it flowers.
- S. azurea. P. Popular garden perennial, light blue flowers.
- S. farinacea. H,P (A where not hardy). Grayish foliage, blue flowers, in gardens.
- S. lyrata. Lyre-leaved Sage. N. Wild garden or naturalizing.
- S. clevelandii. Cleveland Sage. N.T. Shrubby, very aromatic.
- S. officinalis. Garden Sage. All forms. Sub-shrub, excellent for many settings and with perennials.
- S. rutilans. Pineapple Sage. T. Red-flowered, large, bushy.
- S. sclarea. Clary. B. Self-sows. For its flowers and bracts.
- N.B.: "Jerusalem Sage" is Phlomis fruticosa.

Sanguinaria canadensis. Bloodroot.

(Papaveraceae)

N,P,Po,Q,Sh,6 (only after leaves disappear in fall). VI: early white flowers and light-green lobed leaves. There are single and double-flowered forms. The double-flowered bloodroot is exquisite; the single will self-sow. Bark mulch in sunnier locations in garden settings. Wild or rock gardens; naturalizing in woods. Cool humusy soil.

Santolina. Lavender Cotton. (Compositae) C,P,Q,S,5,8. VI: foliage. Remove flowers for best foliage. Replace as needed when old. Edgings, garden settings, accent, contrast, patterns. Good drainage.

S. chamaecyparissus, S. chamaecyparissus 'Nana'. I-II, to 2 feet. Accept clipping. Compact gray-white foliage.

S. neapolitana. II-III. Feathery gray-green foliage, summer shrub stature. S. virens. I-II. Small summer shrub stature, 1-2 feet. Green foliage. Not reliably hardy.

Saponaria officinalis. Bouncing Bet, Soapwort. (Caryophyllaceae) P,Q,1,2,6. II, to 2½ feet. VI: erect clumps, pretty light-pink flowers. On the fringes of "weed", but where it can be controlled, for some garden settings, wild garden, or naturalizing.

Satureja montana. Winter Savory.

(Labiatae)

P,Q,S,8. I-II, to 1 foot. VI: whole plant, somewhat woody; graceful semierect form, neat green foliage; flowers small, profuse, white to pinkish in mid- to late-summer. Foreground in border, perhaps middle ground in rock garden. Accepts trimming but not formal clipping. An appealing herb season-long. Light winter covering helps. Average soil, drainage. "Ambassador" to and from thymes.

Sedum. Stonecrop.

(Crassulaceae)

H,P,Q,S,6. Garden settings, rock garden. Good drainage. Herbal species: Tall:

S. orpine. H. To 18 inches.

Low:

S. telephium. Flowers coppery, rusty.

S. acre. Gold Moss. To 2 inches. Yellow flowers.

S. anglicum. English Sedum. To 2 inches. White flowers, evergreen.

S. sexangulare. Hexagon Stonecrop. To 3 inches. Yellow flowers, evergreen.

Sempervivum tectorum. Houseleek, Hen-and-chickens. (Crassulaceae) P,S,1,6 (C in sink or dish gardens). I, to 4 inches. VI: low closely packed rosettes of fleshy leaves, pinkish-red flowers on thick stems. Familiar yet exotic. Rock gardens, crevices, stony foregrounds.

Senecio cineraria (Cineraria maritima). Dusty Miller. (Compositae) H,P,S,1,4. I-II-III. VI: white, very downy foliage. For garden settings, but as an accent anywhere. For Beach Dusty Miller or Wormwood see Artemisia stellerana.

Silybum marianum. Blessed Milk Thistle. (Compositae) A,S,1. III, to 4 feet. VI: glossy, spiny-toothed leaves spotted with white; rose-purple flower heads. Thistle-like, tall-growing. Accent and contrast. Average soil.

Solidago. Goldenrod.

(Compositae)

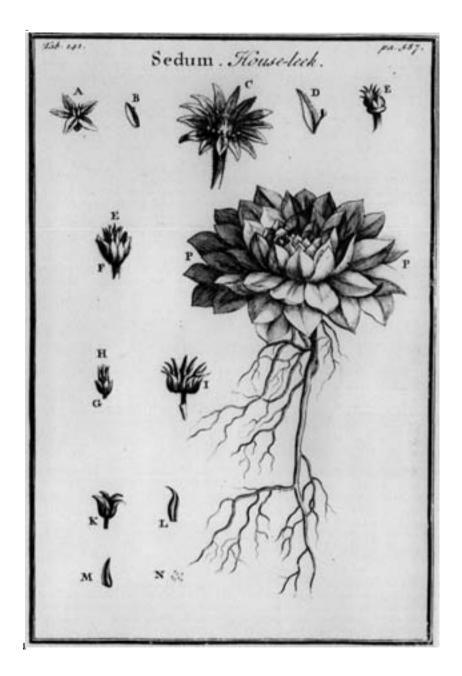
N,P,S,6. Many wild and naturally hybridized varieties of differing height and form can be found. A number of wild goldenrods have had Indian herbal uses. Some are still used as dye herbs. Very invasive; their growing should be well controlled. (H).

ing should be well controlled. (H).

S. odorata. To 4 feet. Plumed. The anise-scented Sweet Goldenrod of the Shakers.

Stachys. Betony. (Labiatae)

S. grandiflora, S. macrantha. Big Betony. P,Q,Sh,1,2. II-III, to 2½ feet. VI: the whole plant; wrinkled, heart-shaped, green foliage; reddish-purple flowers. In garden settings but also in the wild garden and for transitions from drier soils to moister soil naturalizing, as with mints. Average soil, drainage.



SEMPERVIVUM (as SEDUM). A copperplate engraving from The Compleat Herbal, a translation by John Martyn of Institutiones Rei Herbariae, Joseph Pitton de Tournefort. London, R. Bonwicke, Tim. Goodwin, et al., 1719. Tournefort's plates, with their morphological detail drawings surrounding views of the whole plant, reflect the transition to scientifically oriented treatises that takes place during the seventeenth century.

S. olympica. Lamb's Ears, God's Carpet, Woolly Betony. P,Q,S,1,6. I, low if not allowed to flower, or to 12 inches. VI: few plants are more delightfully velvety; foliage silky gray-green. Foreground, garden settings and rock garden, edging, ground cover in special places. Magenta-pink flowers should be removed for best foliage. 'Silver Carpet' does not flower. Bark mulch for first plants; good drainage.

Symphytum officinale. Comfrey, Knitbone. (Boraginaceae) P.Q.Sh.1,4.6. III, to 3 feet. VI: foliage, for scale and mass; whitish to purple flowers are pretty but secondary in effect. Dig out old clumps.

Tanacetum vulgare var. crispum. Tansy. (Compositae) P,Po,Q,S,2,6. III, to 3 feet. VI: natural settings; late-summer yellow flowering. Use only if invasiveness can be controlled. Now considered toxic for culinary use, but has other uses. Poor soils. T. huronense. Woolly and weedier.

#### Teucrium. Germander.

(Labiatae)

T. canadense. Wild Germander, Wood Sage. N,P,Q,Sh,1,5,6. I-II, 8 inches to 3 feet. VI: pink flowers, narrow to broad leaves. Seen planted in blocks as ground cover, but possibly best naturalized.

T. chamaedrys. P,Q,S,5,8 (early spring, self-layering of plant's lowest growth). I, to 10 inches. VI: glossy rich green leaves, woody upright growth, magenta-pink flowers on erect stems above leaves. Light winter covering. Border groups, edgings, patterns. Accepts clipping. For plant strength, do not clip after August 1st. Remove flowers for best foliage. Average soil, mulch.

T. fruticans. C,P,Q,T,5. VI: summer shrub, branching; flat gray-blue flowers, gray-green foliage. Clipped for ornamental hedging.

#### Thumus. Thyme.

(Labiatae)

P,Q,S. Every thyme is one to try, and a bee-plant if nothing else. Form, foliage, and flower differ. Propagate by cutting, division, or layering, because seed may not come true. Light winter cover in the garden, light soil, good year-round drainage.

Three outstanding culinary thymes:

 $T. \times citriodorus$ . Lemon Thyme. T. herba-barona. Caraway Thyme.

T. vulgaris. Common or Culinary Thyme. There are French and English variants; the French has a finer leaf.

For the garden, Lemon and Common Thyme offer variegated silver and golden forms and/or silver-leaf margin forms. In general the silver thymes are not hardy. For the garden, start with T. praecox subsp. arcticus, or T. serpyllum, Mother-of-thyme, which has many variants. For texture, T. pseudolanuginosus, gray, woolly, flat-creeping, or T. thracicus, to 4 inches, creeping, with woolly stems.

A thyme "belongs" with a sundial. There is a place for thymes in many garden and landscaping designs: pavings, stepping stones, banks, blocks, seats, edges of paths, fillings of patterns, and so on. Learn what each offers and its limitations. Many are not hardy.

#### Tiarella cordifolia. Foam Flower.

(Saxifragaceae)

N,P,Q,Sh,1,2,6. II, to 1 foot. VI: in spring, foamy white flowers prove its name. Dense broad green leaves make fine ground cover or carpet for shady garden or wild garden, or naturalized in woods and under deciduous trees. Rich humusy soil, moderately acid to neutral.

Trollius europaeus. Globeflower. (Ranunculaceae) H,P,S or Sh,2,6. I-II, to 2 feet. VI: rounded yellow flowers on erect stems above deeply cut foliage. An accent in flower, from late spring to early summer. Adequate moisture, even somewhat moist areas; average soil.

Tropaeolum. Nasturtium.

(Tropaeolaceae)

A,C,S,1. VI: the whole plant; variety in flowers. Informal settings, garden and beyond. Changes of level. Summer. Tolerant if soil is light and neutral.

T. majus. To 6 feet. Climbing, supported or allowed to trail.

T. minus. Dwarf, bushy.

Verbascum thapsus. Mullein, Herbe de St. Fiacre. (Scrophulariaceae) B.S.1.2. III, to 3 feet or more. VI: first year, low, very woolly, felt-like graygreen leaves, second year, yellow flowers atop a tall, sturdy leaf stem. Of value for naturalizing or for rather difficult natural areas. The hybrid garden varieties overshadow the Common Mullein, but it has its own appeal. Somewhat weedy. Dry soils.

Vinca. Periwinkle, Sorcerer's Violet. (Apocynaceae) C,H,P,Q,Sh,6. I. VI: fine ground cover with blue or white flowers. With shrubs and in blocks and strips, as well as ground cover carpet. Versatile and spreading.

V. major. Larger.

V. minor. Smaller.

Vitis. Grape Vine.

(Vitaceae)

H,Q,5, air-layering. One of the few good vines with herbal uses. Many varieties are cultivated.

V. labrusca. Wild or Fox Grape. Invasive.

Yucca filamentosa. Adam's Needle. (Liliaceae) H,P,S,1,6. III, foliage to 3 feet, flower stalk to 8 feet. VI: whole plant, for accent and a hint of faraway places once visited. In landscape and old-

fashioned garden. Deep-rooting. Handsome creamy summer flowers. Tolerates poor or sandy soils.



ARBUSTA VARIA. A woodcut from Herbarum vivae eicones, Otto Brunfels. Strasbourg, Johann Schott, 1530.