

LOW MAINTENANCE NATIVE AND WILDFLOWER PLANTINGS

Barbara J. Bromley, Mercer Co. Horticulturist 2007

There are many attractive forbs or flowering plants, some native to New Jersey or the Eastern United States that provide low maintenance beauty once established, and can make decorative use of open areas along roadways, in disturbed areas, for meadows, in gardens, and as substitutes for turfgrass. Wildflower plantings attract beneficial insects and butterflies, provide soil stabilization in areas with moderate slope, and can form “rivers” of color from full sun to partly shaded areas. There are species to tolerate a wide range of growing conditions from desert to meadow to swamp to woodland. Some tolerate very poor soil, but most prefer moderately fertile, well-drained soil.

CONSIDERATIONS

- ◆ Environmental impact - What’s needed? Wildlife cover? Erosion control? Screen? Turf substitute?
- ◆ Expense - initial cost of design, seeds or plants, installation, maintenance
- ◆ Maintenance requirements - fertilizing, mowing, reseeding, weed removal
- ◆ Formality needs - will neighbors complain if the yard isn’t “manicured”?
- ◆ Cultural requirements - sun, shade, dry or moist site, sandy or clay soil, etc.
- ◆ “Attractive nuisance” (One planting on Route 29 in New Jersey was removed by the DOT when passersby stopped their cars on that busy thoroughfare to cross the road to pick flowers.

SELECTION

Choose an adaptable species or mix that will grow in the area selected or available conditions. Consider plant height (taller species may shade out shorter ones), color, season of bloom, seed availability, persistence of the species, invasiveness, and price. Consider sun/shade, drainage, and pH. Choose a balance of both annual and perennial types.

The following are only some of the species of forbs (flowering plants) that can be used in low maintenance areas. Many are useful in sunny dry meadows, some for shade areas, some for wet spots. Many catalogs and suppliers have mixes pre-blended for specific site conditions. Plants may be obtained from reliable suppliers or from friends. Do not harvest whole plants from the wild. Because all have different site requirements, check reliable references for individual plant needs and descriptions.

| <u>Botanical name</u> | <u>Common name</u> | <u>site</u> | <u>Ann/Per</u> | <u>height</u> |
|-------------------------------|---------------------------|----------------|----------------|-----------------|
| <i>Achillea filipendulina</i> | gold yarrow* | s | P | med/tall |
| <i>Achillea millefolium</i> | common yarrow* | s | P | med |
| <i>Actaea pachypoda</i> | white baneberry | sh | P | med |
| <i>Amsonia montana</i> | blue star | s/ps | P | med |
| <i>Anagallis arvensis</i> | scarlet pimpernel | s/ps | A | low |
| <i>Anaphalis margaritacea</i> | pearly everlasting | s | P | med/tall |
| <i>Anemone cylindrica</i> | thimbleweed | s | P | med/tall |
| <i>Antennaria</i> spp. | pussytoes | s | P | low/med |
| <i>Anthemis nobilis</i> | Roman chamomile | s | P | low |
| <i>Aquilegia canadensis</i> | wild columbine | s-sh | P | med |
| <i>Aquilegia vulgaris</i> | dwarf columbine | s-sh | P | low |
| <i>Arisaema triphyllum</i> | Jack-in-the-pulpit | sh/w | P | low-med |
| <i>Aruncus dioicus</i> | goat’s beard | ps/sh,w | P | tall |
| <i>Asarum canadense</i> | wild ginger | ps/sh | P | low |
| <i>Asclepias incarnata</i> | swamp milkweed | s,w | P | med/tall |
| <i>Asclepias tuberosa</i> | butterflyweed | s | P | med |
| <i>Asclepias verticillata</i> | whorled milkweed | s | P | med/tall |
| <i>Aster cordifolius</i> | blue wood aster | ps/sh | P | low/tall |
| <i>Aster divaricatus</i> | White wood aster | ps/sh | P | med/tall |
| <i>Aster ericoides</i> | heath aster | s | P | med/tall |
| <i>Aster laevis</i> | smooth aster | s | P | med/tall |
| <i>Aster novae-angliae</i> | New England aster | s/ps,w | P | med/tall |
| <i>Baptisia australis</i> | false indigo | s/ps | P | tall |

s = sun sh=shade ps=partial shade B=biennial A=annual P=perennial w=wet **bold face: native to United States**
 *may be used for sunny meadow mixes for the northeastern states low=under 1 foot med=1-3 feet tall=over 3 feet

| | | | | |
|---------------------------------------|-------------------------|---------|----------|----------|
| <i>Caltha palustris</i> | Marsh marigold | s, w | P | low |
| <i>Campanula rotundifolia</i> | harebell | ps | P | low/med |
| <i>Cassia fasciculata</i> | partridge pea | s | P | tall |
| <i>Castilleja coccinea</i> | Indian paint brush | s | P | low/med |
| <i>Caulophyllum thalictroides</i> | blue cohosh | sh | P | med/tall |
| <i>Centaurea cyanus</i> | cornflower* | s | A | med |
| <i>Cheiranthus allionii</i> | wallflower* | s | Biennial | med |
| <i>Chelone glabra.</i> | turtlehead | s,w | P | med |
| <i>Chrysanthemum leucanthemum</i> | ox-eyed daisy* | s | P | med |
| <i>Chrysogonum virginianum</i> | green and gold | ps/sh | P | low |
| <i>Chrysopsis mariana</i> | Maryland golden aster | s | P | med |
| <i>Cimicifuga racemosa</i> | black cohosh | ps/sh | P | tall |
| <i>Clarkia amoena</i> | farewell-to-spring | s | A | med |
| <i>Claytonia virginica</i> | spring beauty | ps | P | low |
| <i>Collinsonia canadensis</i> | Horse balm | sh | P | tall |
| <i>Coreopsis rosea</i> | pink coreopsis | s | P | med |
| <i>Coreopsis tripteris</i> | tall coreopsis | s/ps | P | tall |
| <i>Coreopsis verticillata</i> | tickseed* | s | P | med |
| <i>Cosmos bipinnatus</i> | cosmos* | s | A | med/tall |
| <i>Cosmos sulphureus</i> | yellow cosmos* | s | A | med/tall |
| <i>Delphinium ajacis</i> | rocket larkspur* | ps/s | A | tall |
| <i>Desmodium canadense</i> | tick-trefoil | s | P | tall |
| <i>Dianthus barbatus</i> | sweet William | s/ps | Biennial | med |
| <i>Dianthus deltoides</i> | maiden pinks | s | A | low |
| <i>Dicentra cucullaria</i> | Dutchman's breeches | ps/sh | P | med |
| <i>Dicentra eximia</i> | fringed bleeding heart | ps/sh | P | low |
| <i>Dodecatheon meadia</i> | shooting star | ps/sh | P | low |
| <i>Echinacea pallida</i> | pale coneflower* | s | P | tall |
| <i>Echinacea purpurea</i> | purple coneflower* | s | P | med/tall |
| <i>Epilobium angustifolium</i> | fireweed | s | P | tall |
| <i>Eryngium yuccifolium</i> | rattlesnake master | s | P | med |
| <i>Erythronium americanum</i> | E. trout lily | Ps/sh | P | low |
| <i>Eupatorium fistulosum</i> | Joe Pye weed | s | P | tall |
| <i>Eupatorium perfoliatum</i> | boneset | s | P | med/tall |
| <i>Euphorbia corollata</i> | flowering spurge | s | P | low/med |
| <i>Fragraria virginiana</i> | wild strawberry | s | P | low |
| <i>Gaillardia aristata</i> | blanketflower* | s | P | med/tall |
| <i>Gaillardia pulchella</i> | Indian blanket* | s | A | med |
| <i>Gentiana andrewsii</i> | Andrews gentian | s/ps,w | P | med |
| <i>Geranium maculatum</i> | crane's bill | s/ps | P | low/med |
| <i>Gilia tricolor</i> | bird's eyes | s | A | med |
| <i>Gypsophila muralis</i> | annual baby's breath* | s | A | med |
| <i>Helenium autumnale</i> | sneezeweed | s | P | tall |
| <i>Helianthus</i> spp. | sunflowers | s | A | tall |
| <i>Hepatica americana</i> | Round-lobed hepatica | ps | P | low |
| <i>Hesperis matronalis</i> - invasive | dame's rocket* | s/ps | P | med/tall |
| <i>Heuchera americana</i> | alumroot | s/ps | P | low |
| <i>Hibiscus moscheutos</i> | Swamp rose mallow | s/ps | P | med/tall |
| <i>Hydrastis canadensis</i> | golden seal | ps/sh | P | low/med |
| <i>Hypoxis hirsuta</i> | yellow star grass | s | P | low/med |
| <i>Iberis umbellata</i> | candytuft | s | A | med |
| <i>Impatiens capensis</i> | jewelweed, touch-me-not | sh, w | P | med |
| <i>Iris versicolor</i> | blue flag iris | s/ps, w | P | med |
| <i>Jeffersonia diphylla</i> | twinleaf | sh | P | low |
| <i>Liatris</i> spp. | blazing star | s | P | med/tall |
| <i>Linaria vulgaris</i> | butter & eggs, toadflax | s | P | low |
| <i>Linum grandiflorum</i> 'rubrum' | scarlet flax* | s | A | med |
| <i>Linum lewisii</i> | blue flax, Lewis flax* | s | P | med |
| <i>Lobelia cardinalis</i> | cardinal flower lobelia | s/sh,w | P | med/tall |

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|-----------------------------------|-------------------------------------|--------|-----|-----------------|
| <i>Lobelia siphilitica</i> | blue lobelia | s | P | med/tall |
| <i>Lobelia spicata</i> | pale lobelia | s | P | med/tall |
| <i>Lobularia maritima</i> | sweet alyssum* | s/ps | A | low |
| <i>Lupinus perennis</i> | perennial lupine* | s | P | low/med |
| <i>Lysimachia terrestris</i> | yellow loosestrife | s/ps,w | P | med |
| <i>Mertensia virginica</i> | Virginia bluebells | s-sh | P | low/med |
| <i>Monarda didyma</i> | bee balm | s/ps | P | med/tall |
| <i>Monarda fistulosa</i> | bergamot | s/ps | P | tall |
| <i>Monarda punctata</i> | horsemint | s/ps | P | med |
| <i>Myosotis sylvatica</i> | forget-me-not | s-sh | AP | low |
| <i>Nemophila insignis</i> | baby blue eyes | s/ps | A | low |
| <i>Nemophila maculata</i> | five spot | s/ps | A | low |
| <i>Oenothera</i> spp. | sundrops,* evening primrose | s | AP | med/tall |
| <i>Opuntia humifusa</i> | prickly pear | s | P | low |
| <i>Papaver nudicaule</i> | Iceland poppy | s/ps | B/P | low/med |
| <i>Papaver rhoeas</i> | corn poppy* | s | A | med |
| <i>Peltandra virginica</i> | arrow arum | s,w | P | med |
| <i>Penstemon digitalis</i> | beardtongue | s/ps | P | med/tall |
| <i>Phlox paniculata</i> | summer phlox | s | P | med/tall |
| <i>Phlox stolonifera</i> | creeping phlox | ps | P | low |
| <i>Physostegia virginiana</i> | obedient plant | s | P | med |
| <i>Ratibida</i> spp. | gray-headed coneflower* | s | AP | med/tall |
| <i>Rudbeckia fulgida</i> | black-eyed Susan* | s | AP | med/tall |
| <i>Rudbeckia laciniata</i> | cutleaf or green headed coneflower* | s,w | P | med/tall |
| <i>Sanguinaria canadensis</i> | bloodroot | ps/sh | P | low |
| <i>Saponaria</i> spp. | soapwort | s | P | low/med |
| <i>Silene virginica</i> | firepink | s/ps | AP | low/med |
| <i>Solidago nemoralis</i> | old-field goldenrod | s | P | med/tall |
| <i>Solidago rigida</i> | stiff goldenrod | s | P | tall |
| <i>Solidago speciosa</i> | showy goldenrod* | s | P | tall |
| <i>Stylophorum diphyllum</i> | Celandine-poppy | ps/sh | P | low |
| <i>Sisyrinchium angustifolium</i> | blue-eyed stargrass | s/sh | P | low |
| <i>Thalictrum</i> spp. | meadowrue | ps/s | P | tall |
| <i>Tiarella cordifolia</i> | foamflower | ps/sh | P | low |
| <i>Tradescantia virginiana</i> | spiderwort | ps/s | P | low/med |
| <i>Trifolium incarnatum</i> | crimson clover* | s | A | low |
| <i>Uvularia sessilifolia</i> | merrybells, wild oats | sh-ps | P | low |
| <i>Verbena hastata</i> | blue vervain | s | P | med |
| <i>Vernonia noveboracensis.</i> | New York ironweed | s | P | tall |
| <i>Veronicastrum virginicum</i> | Culver's root | ps/sh | P | tall |
| <i>Viola conspensa</i> | American dog violet | ps/sh | AP | low |
| <i>Viola odorata</i> | sweet violet | ps/s | P | low |
| <i>Viola pedata</i> | birdsfoot violet | ps/sh | P | low |
| <i>Zizia aurea</i> | golden alexander* | s,w | P | med |

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PLANTING TECHNIQUE FOR MEADOW-STYLE LOW MAINTENANCE AREAS

On Bare Soil

1. Add organic matter if needed to improve tilth, but it is better to select species according to existing conditions and not have to use amendments. Correct soil pH, if necessary, with limestone (to make less acid) or sulfur and acid organics (to acidify). Add fertilizers only if soil tests show that phosphorus or potassium levels are very low to low.
2. Scarify or rake the area to create grooves. Rototill only if needed to relieve severely compacted soil or to incorporate soil amendments. Shallow tilling (less than 2" deep) is less likely to expose buried weed seed than deep tilling.
3. Apply seed by hand, cyclone or drop spreader, or vertical groove seeder (drill). May also hydroseed, but this is least successful. The usual seeding rate for wildflowers is 4 to 6 lb. per acre, depending on species. May add sheep fescue at 24 lb./acre as a filler or bulking agent. Follow supplier's recommendations.
4. Rake lightly to ensure good soil contact.
5. Mulch with ¼" rotted sawdust or ½" to 1" straw (optional).
6. Irrigate as necessary to supplement rainfall during dry spells.

When There Is Existing Vegetation

1. Kill existing grass or weed cover, especially noxious perennial weeds (poison ivy, green briar, Hall's Japanese honeysuckle, multiflora rose, Canada thistle) using a herbicide such as glyphosate (eg. Roundup, Kleenup) according to manufacturer's directions. May need to reapply for particularly stubborn weed problems. Wait at least one week after final application before seeding. May also cover with plastic to smother herbaceous plants. The wait for death of the unwanted plants may take from weeks to a year.
2. Mow dead material very short so that there will be a small amount of stubble to hold moisture and prevent soil erosion while the desirable seeds grow. Apply nutrients only if soil test shows necessity. Scarify or groove the soil through the litter to guarantee soil contact.
3. Proceed as for **Bare Soil**, step 3.

TIMING

Seeding in early spring (April or May) is best. Summer plantings until the first killing frost (about October 15) are next. Dormant seedings (after Dec. 15) are used only when planting at optimum times is impossible. Late fall plantings are generally less successful.

BULKING

Native grasses like side oats grama, little bluestem, Canada wild rye, purple lovegrass, and Indian grass are excellent additions to flower mixes at 5-10 lb./acre to bulk the mixture to 11 to 16 lb. making it easier to apply evenly. Adding 24 lb./A of sheep fescue or hard fescue (*Festuca ovina* var.) seed to the flower mix will bulk the mixture to about 30 lb. Because these grasses are not invasive or strongly competitive, they will aid in weed suppression and soil stabilization while the flowers become established. Mixes can also be bulked with sand, sawdust or similar material.

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FERTILIZATION

Fertilizers, especially those containing nitrogen, encourage weed growth and are used on only the most deficient soils at planting. For some plants fertilizers also encourage floppy stems and vegetative (leaves) rather than reproductive (flowers) growth. As a rule avoid added fertilizers. Added organic matter on small areas will improve soil tilth and add some slowly available nutrients, but it is better in the long run to select plants that tolerate the given conditions rather than relying on amendments.

WATERING

If there is no natural rainfall, irrigation will speed germination and early establishment. Irrigation is usually not needed once plants are well established, but many species will suffer and die out during extended dry periods.

MAINTENANCE

The first three years of a wildflower planting may require nearly as much maintenance as a turfgrass (lawn) planting. Hand removal or spot-treatment of noxious weeds (poison ivy, multiflora rose) and invasive broadleaved weeds and grasses is recommended to prevent crowding out of wildflower species. High mowing (4" or higher) once each year or two during dormancy will help prevent invasion of woody species, aid in spreading seed from seedheads, and keep the planting looking neat. (May also mow in early summer before desired wildflower plants have lengthened to set back intruders while they are actively growing.)

It may be necessary to overseed with annual species every few years to continue their populations or with perennials to replace those damaged by severe weather.