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

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Linum grandiflorum 'rubrum'scarlet flax*sAmedLinum lewisiiblue flax, Lewis flax*sPmed			S		
<i>Linum lewisii</i> blue flax, Lewis flax* s P med			S	Р	low
,			S		
Lobelia cardinaliscardinal flower lobelias/sh,wPmed/tall			-		
	Lobelia cardinalis	cardinal flower lobelia	s/sh,w	Р	med/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

Lobelia siphilitica	blue lobelia	S	Р	med/tall
Lobelia spicata	pale lobelia	S	Р	med/tall
Lobularia maritima	sweet alyssum*	s/ps	А	low
Lupinus perennis	perennial lupine*	S	Р	low/med
Lysimachia terrestris	yellow loosestrife	s/ps,w	Р	med
Mertensia virginica	Virginia bluebells	s-sh	Р	low/med
Monarda didyma	bee balm	s/ps	Р	med/tall
Monarda fistulosa	bergamot	s/ps	Р	tall
Monarda punctata	horsemint	s/ps	Р	med
Myosotis sylvatica	forget-me-not	s-sh	AP	low
Nemophila insignis	baby blue eyes	s/ps	А	low
Nemophila maculata	five spot	s/ps	А	low
<i>Oenothera</i> spp.	sundrops,* evening	S	AP	med/tall
	primrose			
Opuntia humifusa	prickly pear	S	Р	low
Papaver nudicaule	Iceland poppy	s/ps	B/P	low/med
Papaver rhoeas	corn poppy*	S	А	med
Peltandra virginica	arrow arum	s,w	Р	med
Penstemon digitalis	beardtongue	s/ps	Р	med/tall
Phlox paniculata	summer phlox	S	Р	med/tall
Phlox stolonifera	creeping phlox	ps	Р	low
Physostegia virginiana	obedient plant	S	Р	med
<i>Ratibida</i> spp.	gray-headed	S	AP	med/tall
	coneflower*			
Rudbeckia fulgida	black-eyed Susan*	S	AP	med/tall
Rudbeckia laciniata	cutleaf or green	s,w	Р	med/tall
	headed coneflower*			
Sanguinaria canadensis	bloodroot	ps/sh	Р	low
Saponaria spp.	soapwort	S	Р	low/med
Silene virginica	firepink	s/ps	AP	low/med
Solidago nemoralis	old-field goldenrod	S	Р	med/tall
Solidago rigida	stiff goldenrod	S	Р	tall
Solidago speciosa	showy goldenrod*	S	Р	tall
Stylophorum diphyllum	Celandine-poppy	ps/sh	Р	low
Sisyrinchium angustifolium	blue-eyed stargrass	s/sh	Р	low
Thalictrum spp.	meadowrue	ps/s	Р	tall
Tiarella cordifolia	foamflower	ps/sh	Р	low
Tradescantia virginiana	spiderwort	ps/s	Р	low/med
Trifolium incarnatum	crimson clover*	S	А	low
Uvularia sessilifolia	merrybells, wild oats	sh-ps	Р	low
Verbena hastata	blue vervain	s	Р	med
Vernonia noveboracensis.	New York ironweed	S	Р	tall
Veronicastrum virginicum	Culver's root	ps/sh	Р	tall
Viola conspensa	American dog violet	ps/sh	AP	low
Viola odorata	sweet violet	ps/s	Р	low
Viola pedata	birdsfoot violet	ps/sh	P	low
Zizia aurea	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 <u>only</u> if soil tests show that phosphorus or potassium levels are very low to low.
- 2. Scarify or rake the area to create grooves. Rototill <u>only</u> 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 $\frac{1}{4}$ rotted sawdust or $\frac{1}{2}$ to 1" straw (optional).
- 6. Irrigate as necessary to supplement rainfall during dry spells.

When There Is Existing Vegetation

- 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 <u>only</u> 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 <u>well established</u>, 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.