



## ***Ease of Establishment and Persistence Ratings for Various Wildflowers, After Four Growing Seasons***

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### **Overview:**

In 2009, over 50 species of wildflowers and wildflower mixtures were seeded into 6.33 ft X 10 Ft plots, replicated 3 times. Over the course of the next 4 growing seasons, the species listed in the charts below, were evaluated for ease of establishment, persistence, disease, height, percent covers, herbivory, and bloom periods. All plots were seeded by hand broadcasting, and the seed was mixed with play sand for uniform distribution throughout the plots. The soils are Unadilla silt loam, which are very productive soils. Species that are adapted to these conditions performed well, and species that are more adapted to wetter soils, took longer to become established or have established poorly. We had over 32 species that performed well. The charts on the following pages, list the species, and the ratings that correspond to our findings. We will continue to monitor these species and mixes, for future recommendations on the best and easiest species to be used for pollinator enhancement plantings.

**Ease of Establishment and Persistence for Wildflower Species Study Conducted at the Big Flats Plant Materials Center**

scientific name	Common name	Wetland Indicator	ease of establishment (in field)	Persistence (in field)	scientific name	Common name	Wetland Indicator	ease of establishment (in field)	Persistence (in field)
<i>Chamaecrista fasciculata</i>	partridge pea	FACU	1	1	<i>Rudbeckia hirta</i>	black-eyed susan	FACU	1	3
<i>Coreopsis lanceolata</i>	lanced-leaved coreopsis	FACU	1	1	<i>Asclepias syriaca</i>	common milkweed	FACU	1	3
<i>Desmodium canadense</i>	showy tick trefoil	FAC	1	1	<i>Asclepias incarnata</i>	swamp milkweed	OBL	1	3
<i>Echinacea purpurea</i>	purple coneflower	FAC	1	1	<i>Cichorium intybus</i>	blue chicory	FACU	1	3
<i>Lespedeza capitata</i>	round-headed lespedeza	FACU-	1	1	<i>Lupinus perennis</i>	wild lupine	FACU	1	3
<i>Linum perenne</i>	perennial blue flax	FAC	1	1	<i>Verbena urticifolia</i>	white vervain	FACU	1	3
<i>Monarda fistulosa</i>	wild bergamot	UPL	1	1	<i>Monarda punctata</i>	spotted beebalm	UPL	1	5
<i>Monarda media</i>	purple bergamot	FACW	1	1	<i>Coreopsis tinctoria</i>	plains coreopsis	FAC-	1	5
<i>Oenothera biennis</i>	evening primrose	FACU	1	1	<i>Baptisia australis</i>	blue false indigo	FACU	3	1
<i>Ratibida pinnata</i>	gray-headed coneflower	FAC	1	1	<i>Baptisia tinctoria</i>	wild indigo	FACU-	3	1
<i>Symphyotrichum pilosum</i>	hairy white oldfield aster	FAC	1	1	<i>Helianthus mollis</i>	ashy sunflower	UPL	3	1
<i>Asclepias tuberosa</i>	butterfly milkweed	FAC	1	1	<i>Penstemon digitalis</i>	tall white beardtongue	FAC	3	1
<i>Helianthus giganteus</i>	giant sunflower	FAC	1	1	<i>Solidago caesia</i>	bluestem goldenrod	FACU	3	1
<i>Heliopsis helianthoides</i>	ox eye (false) sunflower	FAC	1	1	<i>Solidago juncea</i>	early goldenrod	UPL	3	1
1-very easy to establish in the field 3-few established first year seeding, but in following spring, established well 5-poor establishment, or did not produce any seedlings					1-very persistent, over 40+ plants in plots (all years) 3-moderately persistent, numbers in plot 20-40 (after 3 growing seasons) 5-numbers have dropped significantly from establishment year				

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<i>Solidago speciosa</i>	showy goldenrod	UPL	3	1	<i>Verbena stricta</i>	hoary vervain	high	3	3
<i>Symphyotrichum novae-angliae</i>	new england aster	FACW	3	1	<i>Symphyotrichum novi-belgii</i>	NY aster	high	3	3
<i>Symphyotrichum prenanthoides</i>	zigzag aster	FAC	3	1	<i>Lobelia cardinalis</i>	cardinal flower	high	5	1
<i>Symphyotrichum novae-angliae</i>	new england aster	FACW	3	1	<i>Lobelia siphilitica</i>	great blue lobelia	very high	5	1
<i>Symphyotrichum prenanthoides</i>	zigzag aster	FAC	3	1	<i>Apocynum cannabinum</i>	indian hemp	medium to low	5	3
<i>Solidago juncea</i>	early goldenrod	UPL	3	1	<i>Oligoneuron riddellii</i>	Riddell's Goldenrod	high	5	3
<i>Solidago patula</i>	rough goldenrod	high	3	3	<i>Senna hebecarpa</i>	wild senna	medium	5	3
<i>Symphyotrichum lateriflorum</i>	calico aster	high	3	3	<i>Verbena hastata</i>	blue vervain	medium	5	3
<i>Verbesina alternifolia</i>	wingstem	medium-low	3	3	<i>Zizia aurea</i>	golden alexanders	low	5	3
<i>Vernonia noveboracensis</i>	NY ironweed	high	3	3	<i>Tradescantia subaspera</i>	zigzag spiderwort	high	5	5
<i>Eupatoriadelphus maculatus</i>	spotted joe pye weed	high	3	3	<i>Agastache scrophulariifolia</i>	purple giant hyssop	very high	5	5
<i>Doellingeria umbellata</i>	flat top white aster	medium-low	3	3	<i>Chelone glabra</i>	white turtlehead	high	5	5
<i>Eupatorium perfoliatum</i>	boneset	high	3	3	<i>Hypericum perforatum</i>	St Johnswort	low	5	5
<i>Eurybia macrophylla</i>	bigleaf aster	medium-low	3	3	<i>Liatris aspera</i>	tall (rough) blazing star	high	5	5
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Euthamia graminifolia	grass-leaved goldenrod	low	3	3	Pycnanthemum virginianum	Virginia mountain mint	high	3	3
Helenium autumnale	common sneezeweed	high	3	3	Mimulus ringens	Alleghany monkey flower	medium-low	5	5
Liatris spicata	marsh blazing star	high	3	3	Tradescantia ohiensis	Ohio spiderwort	high	5	5
Penstemon hirsutus	hairy beardtongue	high	3	3	Veronicastrum virginicum	culver's root	high	5	5
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