EQIP/WHIP PRACTICE GUIDELINES
Early Successional Habitat Development & Management (647): Establish Pollinator or Beneficial Insect Habitat

Participant: _____

EQIP Contract Number: _____

Purposes of Cost Share Practice: The primary purpose of this practice scenario is to improve conserve, and create habitat for native pollinator and beneficial insects. Areas traditionally left as fallow or idle were essential habitat for many species due to the diversity of grass and flowering shrub species that inhabited them. These areas offered beneficial elements to all life stages of insects, but have increasingly diminished in size and number. In addition to providing pollinator habitat, these areas can reduce erosion, protect water quality by trapping sediment, chemicals and other pollutants, and can serve as buffers for sensitive areas when applying pesticides or fertilizers. In some cases, development and maintenance of pollinator forage habitat can support IPM strategies that control crop pests. Agricultural productivity is directly related to the effectiveness of pollinators. Therefore, this practice should be considered a viable method for improving plant health and vigor, as well as a method for improving biodiversity, enhancing wildlife habitat, and increasing the population of pollinator species.

Conditions for Practice Eligibility: Applicants must meet all EQIP/WHIP requirements to be eligible for financial assistance. All land uses are to be considered for eligibility for this practice scenario.

Minimum Practice Requirements (EQIP payment rate includes all practice requirements)

Establish vegetation using attached specifications. If unforeseeable hindrances (i.e. – seed availability) occur with seeding specifications, state biologist can offer substitute planting specifications. Practice will be certified as installed when vegetative cover has been established by planting. After establishment, this planting requires active management to stay productive. Spot-spraying unwanted trees (i.e. - sweetgums and pines) or grasses (i.e. - Johnsongrass) may be necessary annually. Utilize control methods identified in the NC Ag. Chemical Manual. Removal of accumulated plant litter is necessary at least once every two years. Haying or prescribed burning during Sept - Oct are both suitable methods for accomplishing this requirement. Bush-hogging without raking hay or burning of litter is not permitted. Light disking will damage wildflowers' basal rosettes and is therefore not permitted. Use of insecticides will be prohibited within planned areas under contract for the life of the practice. Practice must be part of a contract that obligates at least $1000.

Considerations

- If exotic invasive or noxious plants are present, consider eradication prior to practice implementation.
- Crimson clover is the only annual specified in the seed mix. Re-seeding is likely in the second and third year, but one can expect it to decline over time. If you like the results Crimson clover provides, but determine it has declined too far, re-establish it by drilling the seed into the sod after haying or burning.
- When possible, time management activities to minimize disturbance of seasonal wildlife activities, with special consideration for nesting season.

EQIP/WHIP Specifications Document

Tract: _____ **Field:** _____

Poorly Drained Soils Seeding Recommendation: 5.4 Bulk lbs/ac (Rate based on 40 seed/sq.ft.)

Common Name	*Scientific Name*	# of seed/pound	PLS lbs/ac.	% of mix	PLS lbs/ac. (plant)	Est. cost/lb (Bulk)	Germ. Rate (%)	Bulk lbs/ac. Needed	Est. price/ac.
Grasses									
switchgrass	*Panicum virgatum*	259,000	6.73	10	0.673	$11.00	66	1.02	$11.21
purpletop tridens	*Tridens flavus*	465,000	3.75	10	0.375	$16.00	92	0.41	$6.52
Forbs									
Heart leaved aster	*Aster cordifolius (Symphyotrichum cordifolium)*	2,000,000	0.87	10	0.087	$320.00	80	0.11	$34.85
Boneset	*Eupatorium perfoliatum*	2,800,000	0.62	10	0.062	$160.00	65	0.10	$15.32
Narrowleaf sunflower	*Helianthus angustifolius*	504,000	3.46	10	0.346	$48.00	88	0.39	$18.86
Great blue lobelia	*Lobelia siphilitica*	7,000,000	0.25	5	0.012	$560.00	50	0.02	$13.94
Nodding bur marigold (nodding beggartick)	*Bidens cernua*	336,000	5.19	8	0.415	$96.00	76	0.55	$52.40
NY Ironweed	*Veronia noveboracensis*	300,000	5.81	4	0.232	$280.00	67	0.35	$97.09
White turtlehead	*Chelone glabra*	1,472,000	1.18	3	0.036	$600.00	39	0.09	$54.63
Legumes									
Crimson clover	*Trifolium incarnatum*	149,760	11.63	15	1.745	$2.87	87	2.01	$5.76
White clover	*Trifolium repens*	800,000	2.18	15	0.327	$3.94	91	0.36	$1.41

Well Drained Soils Seeding Recommendation: 6.6 Bulk lbs/ac (Rate based on 40 seed/sq.ft.)

Common Name	*Scientific Name*	Number of seed/lb	PLS lbs/ac.	% of mix	PLS lbs/ac. (Plant)	Est. cost/lb (Bulk)	Germ. Rate (%)	Bulk lbs Needed	Est. price/ac.
Grasses									
Big bluestem	*Andropogon gerardii*	150,000	11.62	10	1.162	$36.00	78	1.49	$53.61
Indiangrass	*Sorgastrum nutans*	174,000	10.01	10	1.001	$24.00	82	1.22	$29.31
Forbs									
Butterfly milkweed	*Asclepias tuberosa*	87,000	20.03	2	0.401	$184.63	86	0.47	$85.99
Common milkweed	*Asclepias syriaca*	64,000	27.23	3	0.817	$80.00	74	1.10	$88.30
Heath aster	*Aster pilosus*	1,250,000	1.39	10	0.139	$200.00	76	0.18	$36.68
Rough goldenrod	*Solidago rugosa*	1,000,000	1.74	5	0.087	$260.00	70	0.12	$32.36
Appalachian Beard Tongue	*Penstemon laevigatus*	2,052,452	0.85	6	0.051	$280.00	70	0.07	$20.37
Wild Bergamot	*Monarda fistulosa*	1,200,000	1.45	5	0.073	$196.00	60	0.12	$23.72
Showy goldenrod	*Solidago speciosa*	1,675,200	1.04	6	0.062	$160.00	67	0.09	$14.90
Virginia mountain mint	*Pycnanthemum virginianum*	3,200,000	0.54	3	0.016	$480.00	56	0.03	$14.00
Legumes									
Crimson clover	*Trifolium incarnatum*	149,760	11.63	20	2.327	$2.87	87	2.67	$7.68
White clover	*Trifolium repens*	800,000	2.18	20	0.436	$3.94	91	0.48	$1.89

Establishment:

Ideal planting time for recommended seed mixtures is the month of September. Broadcast seed on the surface of very finely-disked and firmly rolled (fully settled) conventional seedbed. Roll seed into the top 1/4 to 1/2 inch of topsoil. Do not rake or disk seed into the soil. Raking and disking can cause seed to be planted deeper than is necessary and will reduce germination rate of seed. Do not apply fertilizer at planting time. Fertilization is not necessary for germination and can cause a proliferation of undesirable plant species. Use of an herbicide that provides pre-emergent and post-emergent warm season weed control is usually desirable when this type of planting is made on cropland. Refer to the NC Ag Chemicals manual for recommendations and proper use of herbicide.