2015 Conservation Stewardship Program

North Carolina Supplements for Animal Enhancements

☐ ***ANM03*** ***Incorporate Native Grasses and/or Legumes into 15% or more of the forage base.***

Approved Native Grasses and Legumes

Crop	Seeding Rate (lb./acre) B:broadcast D:drill(4-to 9" row) R:row (30+inches) PLS:pure live seeds	Plant Depth	Mountains (above 2500 ft. elevation)* See footnote for below 2500 ft.		Piedmont and Tidewater		Coastal Plain**	
		(inches)	Best Dates	Possible Dates	Best Dates	Possible Dates	Best Dates	Possible Dates
Big Bluestem	D:8-10 PLS; B:10-12 PLS	½ - ¾	May 15-Jun 15	May 1-Jun 30	May 10-Jun 1	May 1-Jun 30	Apr 20-May 15	Apr 10-Jun 30
Eastern Gamagrass	D:10-15 PLS; B: Do not broadcast	¾ - 1 ½	May 15-Jun 15 Nov-Feb	May 1-Jun 30	May 10-Jun 1 Nov-Jan	May 1-Jun 30	Apr 20-May 15 Nov-Jan	Apr 10-Jun 30
Indiangrass	D:8-10 PLS; B:10-12 PLS	½ - ¾	May 15-Jun 15	May 1-Jun 30	May 10-Jun 1	May 1-Jun 30	Apr 20-May 15	Apr 10-Jun 30
Switchgrass	D:6-10 PLS B:8-12 PLS	½ - ¾	May 15-Jun 15	May 1-Jun 30	May 1-Jun 1	Apr 1-Jun 30	Apr 10-May 15	Apr 10-Jun 30
Alfalfa	B:20-25; D:15-20	¼	Jul 25-Aug 10 Mar 1 -Apr 7	Jul 15-Aug 20 Mar 1-Apr 15	Aug 25-Sep 15	Aug 25-Oct 15 Mar 1 -Mar 31	Sep 1 -Sep 30	Sep 1 -Oct 31
Alfalfa (sod seeding into grass)	D: 15-20	¼ - ½	Jul 25-Aug 10 Sep 15-Oct 1	Jul 25-Oct 15	Aug 25-Sep 15 Oct 10-Oct 20	Aug 25-Oct 20	Sep 1-Sep 30 Oct 10-Oct 20	Sep 1 -Oct 31
Ladino or White Clover	B:5; D:3-5	¼	Jul 25-Aug 10 Mar 20-Apr 20	Jul 15-Aug 20 Mar 1-May 15	Aug 25-Sep 15	Aug 25-Oct 15 Mar 1 -Mar 31	Sep 1-Sep 30	Sep 1 -Oct 25 Feb 15-Mar 20
Ladino (For sod seeding into grass)	B:5; D:3-5	¼ - ½	Jul 25-Aug 10 Aug 1-Sep 1 Mar 1-Mar 20	Aug 1-Sep 15 Mar 1-May 15	Aug 25-Sep 1 Oct 7-Oct 15 Feb 20-Mar 10	Aug 25-Oct 25 Feb 15-Mar 20	Sep 1-Sep 30 Oct 7-Oct 15 Feb 15-Feb 28	Sep 1 -Oct 31 Feb 10-Mar 15
Red Clover	B:10-15; D:8-10	¼ - ½	Jul 25-Aug 10	Jul 15-Aug 20 Mar 1-May 15	Aug 25-Sep 15	Aug 25-Oct 15 Feb 15-Mar 30	Sep 1 -Sep 30	Sep 1 -Oct 15 Feb 15-Mar 20
Red Clover (For sod seeding into grass)	B:10-15; D:8-1 0	¼ - ½	Jul 25-Aug 10 Aug 1 -Sep 1 Mar 1 -Mar 20	Aug 1 -Sep 15 Mar I-May 15	Aug 25-Sep 15[t] Oct 7-Oct 15 Feb 20-Mar 10	Aug 25-Oct 25 Feb 15-Mar 20	Sep 1 -Sep 30[t] Oct 7-Oct 15 Feb 15-Feb 28	Sep 1 -Oct 31 Feb 10-Mar 15

☐	***ANM09***	***Grazing management to improve wildlife habitat.*** Designated acreage will be deferred from April 15 through September 15.

☐	***ANM11***	***Patch-burning to enhance wildlife habitat.*** Apply the enhancement to patches of dormant warm-season grass, or patches of cool season grass (after they have been killed-off with herbicide) during October- March.

☐	***ANM25***	***Stockpiling forages to extend the growing season.*** Technique for Stockpiling Cool Season forages, especially Tall fescue: • At 60 – 90 days before the end of the fall growing season (around September 1st), graze or clip pastures leaving 3- 5 inches of forage growth • Immediately after grazing or clipping, apply 40 to 80 pounds of nitrogen per acre • Defer grazing stockpiled fescue until late in the fall or winter (around December 15th) • If possible, stockpile 1 acre per cow to give a 75 – 90 day feed supply Technique for stockpiling warm season forages, especially Bermudagrass • 6 to 8 weeks prior to the first anticipated frost (around August 1st), graze or clip bermudagrass to a stubble height of 1 to 2 inches • Remove livestock and allow them to graze other pastures • Apply 60 – 75 pounds of nitrogen per acre • Begin strip-grazing after the first frost (no sooner than 7 – 10 days prior to the first frost, around October 15th) • Be sure to clip and forage test for quality

☐	***ANM27***	***Wildlife friendly fencing.*** Consult a NCWRC, or USFWS bi9ologist to identify wildlife species needed conservation by this activity and design specifications to meet that species needs before contracting this enhancement. There is no specific technical guidance developed for use of this activity in North Carolina because it's need has been little recognized. Use the national enhancement ANM 27 Job Sheet criteria, or other specifications for the speciens of concern that have been approved by a wildlife biologist.

☐	***ANM29***	***On-farm forage based grazing system.***

Species	Growth periods	**Target Grazing Height (in.)**		Grazing recovery period (days)	Comments
		Start grazing	**Stop grazing**		
Bermudagrass: Common, hybrid & seeded varieties	Apr-May	4-6	2-3	21-30	
	Jun-Jul	4-6	2-3	10-21	
	Aug-Sep	4-6	2-3	20-40	
	Frosted	3+	2-3	Spring	Any frosted grazing should be done prior to leaf deterioration
Bermudagrass: overseeded with small grain (rye, oats, etc.)	Feb-Mar	8-10 (small grain)	3-4	21-30	Target heights directed toward small grain
	Apr-May	6-8	2-3	14-21	Control small grains so Bermuda can emerge
	Jun-Jul	3-5	2-3	10-21	
	Aug-Sep	3-5	2-3	21-30	
	October	3-5	1-2	45-90	Graze Bermuda close during late Sept to allow emergence of overseeded small grain
	Nov-Jan	6-8 (small grain)	3-4	45-90	Don't allow small grain grazing until target height reached
Kentucky Bluegrass w/ white clover	Mar-May	4-6	2-3	14-30	If clover is White Dutch, then may graze to 1.5"
	Jun-Aug	6-8	2-4	30-45	
	Sep-Oct	6-8	2-3	21-45	
	Nov-Feb	4-6	2-3	Spring	
Crabgrass and associated warm season species	May-Jun	6-8	2-3	14-30	
	Jul-Aug	6-8	2-3	14-30	
	Sep-Oct	4-6	1-2	Replant in Spring	Summer growth may be grazed in fall; quality may be limiting
Fescue or Orchardgrass	Feb-Mar	4-6	2-3	30-45	
	Apr-Jun	6-8	3-4	14-30	
	Jul-Aug	6-8	3-4	30-60	

dominant with or without ladino clover	Sep-Oct	6-8	2-3	21-35	If clover mix is “stockpiled”, clover may be shaded if canopy reaches 10-12” prior to grazing
	Nov-Jan	4-6	2-3	45-90	
Fescue (<70%) mixed with bermuda or crabgrass	Feb-Mar	4-6	2-3	30-45	Grazing height of mix during the summer is dictated by climate-favored species. Shorter “stop” heights will favor Bermuda/crabgrass, taller will favor fescue
	Apr-Jun	6-8	2-3	14-30	
	Jul-Aug	6-8	3-4	21-45	
	Sep-Oct	6-8	2-3	21-35	
	Nov-Jan	4-6	2-3	45-90	
Switchgrass, Indiangrass, Big Bluestem	Apr-Jun	14-18	5-7	21-30	Allow plants to reach seed head stage during establishment year prior to grazing
	Jul-Aug	18-22	5-7	21-40	
	Sep-Oct	16-20	8-12	Spring	

Adapted from Forage Facts Sept 2005. Revised July 2012 (complete reference available eFOTG Section I)

☐ ***ANM31*** ***Drainage water management***

- This enhancement is for implementing drainage water management techniques outside the typical crop production season. The terminology used in the enhancement job sheet to described this period of time is ‘non-cropping season’.
- NC NRCS practice 554 Drainage Water Management criteria must be met in order for the enhancement to be considered complete. According to NC standard 554, the practice is applicable to agricultural lands with surface or subsurface drainage systems that are adapted to allow management of drainage discharges.
- In order to be eligible for the enhancement, the producer must have cropland drainage systems in place that can be managed to meet the enhancement criteria.
- To create and maintain habitat for identified targeted species, consult NC FOTG conservation practice standards 654 Shallow Water Management for Wildlife, 645 Upland Wildlife Habitat Management, 644 Wetland Wildlife Habitat Management, and 587 Structure for Water Control for drainage water and vegetative management requirements.
- Enhancement eligibility requires objective species to benefit rom Drainage Water Management per Job Sheet criteria and appropriate practice standards. Producer must consult quailifed wildlife biologist to determine whether

		enhancement techinques can benefit habitat for objective target species through drainage water management techinques in the national Job Sheet criteria and 554 practice standard.

☐ ***ANM32*** ***Extend existing filter strips or riparian herbaceous cover for water quality protection and wildlife habitat.***

Participant must plant at least five (5) species from following lists:

Perennial Grasses & Forbs for Wildlife	Adapted to: Coastal plain (C), Piedmont (P), Mountains (M)	Planting Season	Single Species Stand (Lbs./acre)	TWO Species Mix (Lbs./acre)	THREE Species Mix (Lbs./acre)	FOUR Species Mix (Lbs./acre)	FIVE Species Mix (Lbs./acre)
NATIVE GRASSES	**Native grass seed rates indicated are in Pound Pure Live Seed (PLS) per Acre. 1st figure is drilled rate & 2nd figure is broadcast rate.**						
Big bluestem	C, P, M	Spring	6	3	2	1.5	1.2
Broomsedge	C, P, M	Spring	5	2.5	1.6	1.25	1
Coastal panicgrass, '*Atlantic*'	C, P	Spring	6	3	2	1.5	1.2
Deertongue '*Tioga*'	P, M	Spring	6	3	2	1.5	1.2
Eastern gamagrass	C, P, M	Spring	4	2	1.3	1	0.8
Indiangrass	C, P, M	Spring	6	3	2	1.5	1.2
Little bluestem	C, P, M	Spring	5	2.5	1.6	1.25	1
Purple top	C, P, M	Spring	6	3	2	1.5	1.2
Sideoats grama	P, M	Spring	6	3	2	1.5	1.2
Switchgrass	C, P, M	Spring	6	3	2	1.5	1.2
Virginia wildrye	C, P, M	Spring	8	6	4	3	2

FORBS	Adapted to: Coastal plain (C), Piedmont (P), Mountains (M)	Planting Season	Single Species Stand (Lbs./acre)	TWO Species Mix (Lbs./acre)	THREE Species Mix (Lbs./acre)	FOUR Species Mix (Lbs./acre)	FIVE Species Mix (Lbs./acre)
	All rates for forbs are in PLS unless otherwise noted.						
Birdsfoot trefoil	C, P, M	Fall	4	2	1.3	1	0.8

			Black-eyed susan	C, P, M	Fall	1	0.5	0.3	0.25	0.2
			Roundhead lespedeza	C, P, M	Spring	Bulk 15	7.5	5	3.75	3
			Coreopsis	C, P, M	Spring	1	0.5	0.3	0.25	0.2
			Goldenrod	C, P, M	Fall	1	0.5	0.3	0.25	0.2
			Partridge pea	C, P, M	Spring	6	3	2	1.5	1.2
			Perennial sunflower (*Helianthus*)	C, P, M	Fall	1	0.5	0.3	0.25	0.2
			Purple coneflower	C, P, M	Fall	1	0.5	0.3	0.25	0.2
			Beggarlice (*Desmodium*)	C, P	Fall	8	4	2.6	2	1.6

PERENNIALS			Seeding Rate Per Acre	Seeding Rate Per 1000 Sq. Ft.
Alsike clover	C, P, M	Fall	8	0.5
Birdsfoot trefoil	P, M	Fall	8	0.5
Ladino clover	C, P, M	Fall	5	0.5
Red clover	C, P, M	Fall	8	0.5
White Dutch clover	C, P, M	Fall	5	0.5
Flat pea '*Lathco*'	C, P, M	Spring	12	1
Chufa	C, P, M	Summer	20	1.5

☐ ***ANM33*** ***Riparian buffer, terrestrial and aquatic wildlife habitat***

If participant is enhancing buffer by establishing shrubs or trees, those shrubs and trees must be selected from the following lists:

Shrubs for Wildlife	Wetness Tolerance: High, Moderate, or Low	Height at Maturity (ft.)	Noted for: Flowers, Berries, Fruit, Nuts, Cover, or Habitat	Spacing (ft.)
Beautyberry	Moderate-Low	5-10	Drupes	5 X 5
Blackberry	Moderate	4-6	Berries/Cover	5 X 5
Blueberry	High-Moderate	4-6	Berries	5 X 5
Chokeberry	High-Moderate	12-15	Fruit	5 X 5

Elderberry	High-Moderate	10-15	Berries	5 X 5
Gallberry	High-Moderate	3-6	Drupes/Cover	5 X 5
Serviceberry	High-Moderate	40	Fruit	5 X 5
Sugarberry	High-Moderate	80	Drupes	5 X 5
Sumac	Moderate-Low	12	Fruit	5 X 5
Winterberry	Moderate	12	Drupes	5 X 5
Yaupon	High-Moderate	20	Fruit/Cover	5 X 5

Trees for Wildlife	Wetness Tolerance: High, Moderate, or Low	Height at Maturity (ft.)	Noted for: Flowers, Berries, Fruit, Nuts, Cover, or Habitat	Spacing (ft.)
Apple	High-Moderate	30-40	Fruit	15 x 15
Bald cypress	High	100-120	Seeds/Habitat	20 x 20
Beech	High-Moderate	60-80	Nuts/Cover	20 x 20
Black walnut	Moderate	70-90	Nuts	20 x 20
Blackberry	Moderate	4-6	Berries/Cover	10 x 10
Chinquapin	Low	40	Nuts	15 x 15
Crabapple	High	30	Fruit	15 x 15
Dogwood, flowering	High-Low	25	Fruit	15 x 15
Hackberry	High-Moderate	50-90	Drupes	20 x 20
Hawthorn	High-Low	20-40	Fruit/Cover	15 x 15
Hazelnut	Moderate	10	Fruit/Cover	10 x 10
Hickory	High-Low	Spp. Depend.	Nuts	20 x20
Holly	High-Moderate	40-70	Fruit/Cover	15 x 15
Mulberry	Moderate	60	Fruit	20 x 20

			Oaks (native variety)	High-Low	Spp. Depend.	Nuts	20 x 20
			Pecan	Moderate	100	Nuts	20 x 20
			Persimmon	Moderate-Low	20-70	Fruit	20 x 20
			Plum, American	High-Moderate	20-30	Fruit/Cover	15 x 15
			Plum, Chickasaw	Moderate	6-12	Fruit/Cover	10 x 10
			Red cedar	Moderate-Low	40-60	Cones/Cover	20 x 20

☐	***ANM35***	***Enhance wildlife habitat on expired grass/legume covered CRP acres or acres with similar perennial vegetated cover managed as hayland.*** Haying will be deferred on designated acreage from April 15 through September 15. Participant may not harvest forage at a height lower than eight (8) inches to meet Criteria - a. iii.

☐	***ANM36***	***Enhance wildlife habitat on expired tree covered CRP acres or acres with similar woody cover managed as forestland.*** Apply the enhancement to southern yellow pine plantations, in order to improve the forest understory habitat for grassland/savanna nesting birds. Prescribe burn stand at an interval of every 3 years or more often. Timber harvest and thinning should be extensive enough to reduce the stand density 25 to 30 percent below the level recommended for maximum timber production. Thin to leave the residual basal area at a level that is less than 75% of the soil's 50-year site index. Designated critical nesting and fawning period is from April 15 through September 15. Schedule actions that could disrupting nesting and fawning activities between September 16 and April 14.

☐	***ANM37***	***Prescriptive Grazing management system for grazed lands (includes expired CRP grass/legume or tree covered acres converted to grazed lands).***

☐	***ANM39***	***Extending riparian forest buffers for water quality protection and wildlife habitat.*** **Participant Must Plant**

A minimum of 5 species from the following lists:

Shrubs for Wildlife	Wetness Tolerance: High, Moderate, or Low	Height at Maturity (ft.)	Noted for: Flowers, Berries, Fruit, Nuts, Cover, or Habitat	Spacing (ft.)
Beautyberry	Moderate-Low	5-10	Drupes	5 X 5
Blackberry	Moderate	4-6	Berries/Cover	5 X 5
Blueberry	High-Moderate	4-6	Berries	5 X 5
Chokeberry	High-Moderate	12-15	Fruit	5 X 5
Elderberry	High-Moderate	10-15	Berries	5 X 5
Gallberry	High-Moderate	3-6	Drupes/Cover	5 X 5
Serviceberry	High-Moderate	40	Fruit	5 X 5
Sugarberry	High-Moderate	80	Drupes	5 X 5
Sumac	Moderate-Low	12	Fruit	5 X 5
Winterberry	Moderate	12	Drupes	5 X 5
Yaupon	High-Moderate	20	Fruit/Cover	5 X 5

Trees for Wildlife	Wetness Tolerance: High, Moderate, or Low	Height at Maturity (ft.)	Noted for: Flowers, Berries, Fruit, Nuts, Cover, or Habitat	Spacing (ft.)
Apple	High-Moderate	30-40	Fruit	15 x 15
Bald cypress	High	100-120	Seeds/Habitat	20 x 20
Beech	High-Moderate	60-80	Nuts/Cover	20 x 20
Black walnut	Moderate	70-90	Nuts	20 x 20
Blackberry	Moderate	4-6	Berries/Cover	10 x 10

			Chinquapin	Low	40	Nuts	15 x 15
			Crabapple	High	30	Fruit	15 x 15
			Dogwood, flowering	High-Low	25	Fruit	15 x 15
			Hackberry	High-Moderate	50-90	Drupes	20 x 20
			Hawthorn	High-Low	20-40	Fruit/Cover	15 x 15
			Hazelnut	Moderate	10	Fruit/Cover	10 x 10
			Hickory	High-Low	Spp. Depend.	Nuts	20 x20
			Holly	High-Moderate	40-70	Fruit/Cover	15 x 15
			Mulberry	Moderate	60	Fruit	20 x 20
			Oaks (native variety)	High-Low	Spp. Depend.	Nuts	20 x 20
			Pecan	Moderate	100	Nuts	20 x 20
			Persimmon	Moderate-Low	20-70	Fruit	20 x 20
			Plum, American	High-Moderate	20-30	Fruit/Cover	15 x 15
			Plum, Chickasaw	Moderate	6-12	Fruit/Cover	10 x 10
			Red cedar	Moderate-Low	40-60	Cones/Cover	20 x 20

☐ ***ANM40*** ***Extending existing field borders for water quality protection and wildlife habitat.***

Participant must plant at least 5 species from the following lists:

Perennial Grasses & Forbs for Wildlife	Adapted to: Coastal plain (C), Piedmont (P), Mountains (M)	Planting Season	Single Species Stand (Lbs./acre)	TWO Species Mix (Lbs./acre)	THREE Species Mix (Lbs./acre)	FOUR Species Mix (Lbs./acre)	FIVE Species Mix (Lbs./acre)
NATIVE GRASSES	**Native grass seed rates indicated are in Pound Pure Live Seed (PLS) per Acre. 1st figure is drilled rate & 2nd figure is broadcast rate.**						
Big bluestem	C, P, M	Spring	6	3	2	1.5	1.2
Broomsedge	C, P, M	Spring	5	2.5	1.6	1.25	1
Coastal panicgrass, '*Atlantic*'	C, P	Spring	6	3	2	1.5	1.2
Deertongue '*Tioga*'	P, M	Spring	6	3	2	1.5	1.2
Eastern gamagrass	C, P, M	Spring	4	2	1.3	1	0.8
Indiangrass	C, P, M	Spring	6	3	2	1.5	1.2
Little bluestem	C, P, M	Spring	5	2.5	1.6	1.25	1
Purple top	C, P, M	Spring	6	3	2	1.5	1.2
Sideoats grama	P, M	Spring	6	3	2	1.5	1.2
Switchgrass	C, P, M	Spring	6	3	2	1.5	1.2
Virginia wildrye	C, P, M	Spring	8	6	4	3	2

FORBS	Adapted to: Coastal plain (C), Piedmont (P), Mountains (M)	Planting Season	Single Species Stand (Lbs./acre)	TWO Species Mix (Lbs./acre)	THREE Species Mix (Lbs./acre)	FOUR Species Mix (Lbs./acre)	FIVE Species Mix (Lbs./acre)
	All rates for forbs are in PLS unless otherwise noted.						
Birdsfoot trefoil	C, P, M	Fall	4	2	1.3	1	0.8
Black-eyed susan	C, P, M	Fall	1	0.5	0.3	0.25	0.2
Roundhead lespedeza	C, P, M	Spring	Bulk 15	7.5	5	3.75	3
Coreopsis	C, P, M	Spring	1	0.5	0.3	0.25	0.2

Goldenrod	C, P, M	Fall	1	0.5	0.3	0.25	0.2
Partridge pea	C, P, M	Spring	6	3	2	1.5	1.2
Perennial sunflower (*Helianthus*)	C, P, M	Fall	1	0.5	0.3	0.25	0.2
Purple coneflower	C, P, M	Fall	1	0.5	0.3	0.25	0.2
Beggarlice (*Desmodium*)	C, P	Fall	8	4	2.6	2	1.6

PERENNIALS			Seeding Rate Per Acre	Seeding Rate Per 1000 Sq. Ft.
Alsike clover	C, P, M	Fall	8	0.5
Birdsfoot trefoil	P, M	Fall	8	0.5
Ladino clover	C, P, M	Fall	5	0.5
Red clover	C, P, M	Fall	8	0.5
White Dutch clover	C, P, M	Fall	5	0.5
Flat pea '*Lathco*'	C, P, M	Spring	12	1
Chufa	C, P, M	Summer	20	1.5

☐ ***ANM41*** ***Multi-species native perennials and native self-seeding annuals for biomass/wildlife habitat.***

Formulate a 12-species mix from plants listed (below). Select the seeding rates for 5-species mixes. Consult state biologist, or agronomist for assistance developing seed mixtures. Ensure that your seed mixtures include species that are intended to be planted in the same planting season, i.e. all "Spring" planting, in order to achieve uniform establishment.

Perennial Grasses & Forbs for Wildlife	Adapted to: Coastal plain (C), Piedmont (P), Mountains (M)	Planting Season	Single Species Stand (Lbs./acre)	TWO Species Mix (Lbs./acre)	THREE Species Mix (Lbs./acre)	FOUR Species Mix (Lbs./acre)	FIVE Species Mix (Lbs./acre)
NATIVE GRASSES	**Native grass seed rates indicated are in Pound Pure Live Seed (PLS) per Acre. 1st figure is drilled rate & 2nd figure is broadcast rate.**						
Big bluestem	C, P, M	Spring	6	3	2	1.5	1.2
Broomsedge	C, P, M	Spring	5	2.5	1.6	1.25	1
Coastal panicgrass, '*Atlantic*'	C, P	Spring	6	3	2	1.5	1.2

Deertongue '*Tioga*'	P, M	Spring	6	3	2	1.5	1.2
Eastern gamagrass	C, P, M	Spring	4	2	1.3	1	0.8
Indiangrass	C, P, M	Spring	6	3	2	1.5	1.2
Little bluestem	C, P, M	Spring	5	2.5	1.6	1.25	1
Purple top	C, P, M	Spring	6	3	2	1.5	1.2
Sideoats grama	P, M	Spring	6	3	2	1.5	1.2
Switchgrass	C, P, M	Spring	6	3	2	1.5	1.2
Virginia wildrye	C, P, M	Spring	8	6	4	3	2

FORBS	Adapted to: Coastal plain (C), Piedmont (P), Mountains (M)	Planting Season	Single Species Stand (Lbs./acre)	TWO Species Mix (Lbs./acre)	THREE Species Mix (Lbs./acre)	FOUR Species Mix (Lbs./acre)	FIVE Species Mix (Lbs./acre)
	All rates for forbs are in PLS unless otherwise noted.						
Birdsfoot trefoil	C, P, M	Fall	4	2	1.3	1	0.8
Black-eyed susan	C, P, M	Fall	1	0.5	0.3	0.25	0.2
Roundhead lespedeza	C, P, M	Spring	Bulk 15	7.5	5	3.75	3
Coreopsis	C, P, M	Spring	1	0.5	0.3	0.25	0.2
Goldenrod	C, P, M	Fall	1	0.5	0.3	0.25	0.2
Partridge pea	C, P, M	Spring	6	3	2	1.5	1.2
Perennial sunflower (*Helianthus*)	C, P, M	Fall	1	0.5	0.3	0.25	0.2
Purple coneflower	C, P, M	Fall	1	0.5	0.3	0.25	0.2
Beggarlice (*Desmodium*)	C, P	Fall	8	4	2.6	2	1.6

PERENNIALS			Seeding Rate Per Acre	Seeding Rate Per 1000 Sq. Ft.
Alsike clover	C, P, M	Fall	8	0.5
Birdsfoot trefoil	P, M	Fall	8	0.5
Ladino clover	C, P, M	Fall	5	0.5
Red clover	C, P, M	Fall	8	0.5
White Dutch clover	C, P, M	Fall	5	0.5

			Flat pea '*Lathco*'	C, P, M	Spring	12	1	
			Chufa	C, P, M	Summer	20	1.5	

☐	***ANM42***	Forest stand improvement for wildlife habitat and soil quality 1. Quantities of Den/Cavity and Downed Wood expected (per acre) where this enhancement is applied: All four of the following are required: • One snag > 20" diameter at breast height (DBH), plus • Four snags 10-20" DBH, plus • Two snags 6-10" DBH, plus • Five (5) downed logs, each one 12 inches or greater in diameter at the largest end and at least 16 feet long, to provide coarse woody debris. 2. Mark and map all trees to be conserved, or deadened. 3. If additional (new) den trees/logs need to be created to meet the criteria, select trees that are at least 100 feet apart, and choose ones that show signs of damage or decay. 4. Snags can be created by "girdling" trees by cutting 3-4" wide band of bark away with an ax, or cutting 2 rings around the tree and through the bark with a chain saw. 5. Any felling of trees to provide downed logs must be scheduled October-February.

☐	***ANM44***	***Close strcturues to capture and retain rainfall for waterfowl and wading birds during winter*** • Target species include migratory waterfowl, marshbirds, shorebirds and other species that benefit from shallow water management. • Flooding and draw down periods should be specified to span 2-3 weeks to provide best habitat functions. • Use NC eFOTG Jobsheet for Shallow Water Management for Wildlife (646) to support this activity.

☐	***ANM45***	***Manipulate vegetation on fields where rainfall is to be captured and retained*** • Target species include migratory waterfowl, marshbirds, shorebirds and other species that benefit from shallow water management. • Use NC eFOTG Jobsheet for Shallow Water Management for Wildlife (646) to support this activity.

☐	***ANM46***	***Extend retention of captured rainfall to provide later winter habitat for migratory waterfowl and shorebirds*** • Target species include migratory waterfowl, marshbirds, shorebirds and other species that benefit from shallow water management. • Flooding and draw down periods should be specified to span 2-3 weeks to provide best habitat functions. • Use NC eFOTG Jobsheet for Shallow Water Management for Wildlife (646) to support this activity.

☐	***ANM47***	***Shorebird Habitat, Late Season Shallow Water with Manipulation*** • Target species include shorebirds and wading birds that will benefit from extended late season shallow water management. • Drawdown should occur over 2-3 week period. • Use NC eFOTG Jobsheet for Shallow Water Management for Wildlife (646) to support this activity.

☐	***ANM48***	***Shorebird Habitat, Extended Late Season Shallow Water with Manipulation*** • Target species include shorebirds and wading birds that will benefit from extended late season shallow water management. • Drawdown should occur over 2-3 week period. • Use NC eFOTG Jobsheet for Shallow Water Management for Wildlife (646) to support this activity.

☐	***ANM50***	***Control of undesirable woody vegetation in moist soil wetlands for wildlife*** • Target species include migratory waterfowl, marshbirds, shorebirds and other species that benefit from shallow water management. • Use NC eFOTG Jobsheet for Shallow Water Management for Wildlife (646) to support this activity.

☐	***ANM51***	***Establish and maintain early successional, naturally occurring vegetation in ditches and ditch bank borders for wildlife habitat and water quality protection*** • Targeted Species are Northern bobwhite, native songbirds, Eastern cottontail, marsh rabbit, woodcock, furbearers, amphibians and reptiles.

		• Use NC eFOTG Early Successional Habitat Development/Management (647) practice to support planning this enhancement.

☐	***ANM52***	***Implement fallow disking to improve wildlife habitat*** • Targeted Species are Northern bobwhite, native songbirds, and wild turkey. • Use NC eFOTG Early Successional Habitat Development/Management (647) practice to support planning this enhancement • This enhancement is only to be applied in very small fields, along a woods' edge, the perimeter of a permanent forest opening, a permanent fire trail, or an abandoned logging roads to avoid creating habitat sinks where predation is high.

☐	***ANM53***	***Hinge cutting for wildlife*** • Targeted Species are Northern bobwhite, native songbirds, wild turkey, rabbits and other small mammals. • Locate patches of hinge-cut trees along the forest edges and close-by places where target species can access waste grain, or food plots.

☐	***ANM54***	***Prescribed burning for upland birds and other wildlife*** • Targeted Species are Northern bobwhite, Eastern meadowlark, various sparrows, and other grassland nesting birds inhabiting the planned area. • Burning must occur between October and March to avoid the nesting season.

☐	***ANM55***	***Creation and retention of snags, den trees, and course woody debris for wildlife habitat*** • Target Species are various cavity-nesting song birds, bats, screech owls, wood ducks, small mammals, reptiles, amphibians, and bees • Quantities of Den/Cavity and Downed Wood expected (per acre) where this enhancement is applied: • Mark and map all trees to be conserved, or deadened. • If additional (new) den trees/logs need to be created to meet the criteria, select trees that are at least 100 feet apart, and choose ones that show signs of damage or decay.

		• Snags can be created by "girdling" trees by cutting 3-4" wide band of bark away with an ax, or cutting 2 rings around the tree and through the bark with a chain saw. • Any felling of trees to provide downed logs must be scheduled October-February.

☐	***ANM57***	***Removal of all threats for sensitive wildlife species on the operation*** • ATTENTION: Prior to contracting this enhancement, contact the NRCS State Biologist, or ASTC-Technology to determine the feasibility of this activity's implementation. • Targeted Species are any animal, or insect listed by the U.S. Fish & Wildlife Service as an endangered, threatened, or candidate species that is determined to inhabit the planned area.

☐	***ANM58***	***Reduction of attractants to human-subsidized predators in sensitive wildlife habitat.*** In North Carolina, this enhancement only focuses on human subsidized predator threats to grassland bird nesting habitat. Coordination with a wildlife biologist is strongly recommended during the planning phase. The targeted "sensitive wildlife species" are grassland nesting birds. The "subsidized predators" are raccoons, skunks, opossums, foxes and coyotes. Activities to perform include: 1. Implementation of a grassland bird nesting habitat conservation plan on the operation (perhaps using other suitable CSP habitat enhancement activities). 2. Removal abandoned buildings, waste piles, and unused storage containers that could provide refuge for predators. 3. Collection and disposal of spilled grain and left-over (unused) feed. 4. Storage of all food waste, spilled grain, and waste feed in metal containers with securely closed lids. 5. Livestock mortality is promptly disposed of by incineration, burial, or removal by rendering service. All mortality is stored in metal containers with securely closed lids.

☐	***ANM63***	***Harvest crop in a manner that allows wildlife to flush and escape.*** The designated critical nesting and fawning period is April 15 through September 15th. Stubble heights of no shorter than 8 inches will allow adequate cover for wildlife.

☐	***ANM64***	***Managing livestock parturition to coincide with forage availability.*** The following information is based on the recommendations of the North Carolina State University Department of Animal Science. For tall fescue-based grazing systems, parturition should occur between October 1st and December 31st. This accounts for the lactation, breeding, gestational, and forage nutritional quality issues associated with fescue toxicosis that occur in North Carolina grazing systems. These dates also take into account peak forage demand during late lactation and availability of stockpiled tall fescue. For Bermudagrass and other warm-season grass – based grazing systems, parturition should occur between March 1st and May 31st. This takes into account peak forage demand and nutritional quality and biomass production.