

5b. Conservation Crop Rotation – Forages

Purpose

1. Encourage agriculture producers to establish a soil conserving forage crop in their crop rotation
2. Reduce sheet, rill, and wind erosion
3. Reduce water quality degradation due to excess nutrients
4. Increase cropping system diversity

Applicability

Applies to cropland acres in the 14-county program area. Existing cropland acres where forage crops are established is not eligible for payment. Acres receiving a payment under any other county, state or federal program for (CSP, EQIP, WL Buffer, etc.) are not eligible.

Specifications:

1. Perennial forages must be established in the rotation
2. Seeding rates for forages shall follow NRCS Appendix A seeding table or OSU Agronomy Guide, 15th ed.
3. Manure and/or fertilizer applications, following the approved VNMP, are permitted between March 15 and October 15
4. Practice must be maintained a minimum of two years from the date of practice installation.
5. Residual forage height must be a minimum of four inches height by October 15 each year
6. Residual forage must be maintained during the non-growing season
7. Grazing according to a Grazing Management Plan between March 15 and October 15 is permitted
8. Producer may apply for a minimum of two years and no more than three years of funding for this practice

Technical Responsibilities

Producer Responsibilities

1. Provide VNMP to SWCD
2. Provide acres and field maps of forage established
3. Provide seed tags (including: % purity, % germ., % weed seed, Ohio noxious weed content) for forages

SWCD Responsibilities

1. Receive application from the producer and complete agreement
2. Determine eligibility, excluding any existing acres where a forage crop is already established, document plan on BMP Worksheet
3. Enter all required information into Beehive
4. Verify overwintering forage crop is established and maintained, annually for the life of the practice
5. Process payment to producer

Participant Payments

Participants will receive \$35/ac payment annually, for up to three years, when verification of all program requirements are met. Funding for 2022 and 2023 is contingent on future funding of the program.

_____ Initials

5b. Conservation Crop Rotation – Forages

Plant Species	Pure Live Seeding Rate (lb/ac)					Seeding depth (in) ¹	Seeding Dates ²	
	Pure Stand	¾	½	⅓	¼		Northern	Southern
Cool Season Growth³								
Non-Legumes								
Fescue, Tall ^{5,6}	15	11	8	5	4	¼ in	3-15 to 5-1 or 8-1 to 9-15	3-1 to 4-20 or 8-1 to 9-15
Festulolium	25	19	13	8	6	¼ in	3-15 to 5-1 or 8-1 to 9-15	3-1 to 4-20 or 8-1 to 9-15
Garrison Creeping Foxtail	6	5	3	2	2	¼ in	3-15 to 5-1 or 8-1 to 9-15	3-1 to 4-20 or 8-1 to 9-15
Kentucky Bluegrass	10	8	5	3	3	¼ in	3-15 to 5-1 or 8-1 to 9-15	3-1 to 4-20 or 8-1 to 9-15
Meadow Fescue	16	12	8	5	4	¼ in	3-15 to 5-1 or 8-1 to 9-15	3-1 to 4-20 or 8-1 to 9-15
Orchardgrass	10	8	5	3	3	¼ in	3-15 to 5-1 or 8-1 to 9-15	3-1 to 4-20 or 8-1 to 9-15
Perennial Ryegrass	24	18	12	8	6	¼ in	3-15 to 5-1 or 8-1 to 9-15	3-1 to 4-20 or 8-1 to 9-15
Reed Canarygrass ^{5,6}	10	8	5	3	3	¼ in	3-15 to 5-1	3-1 to 4-20
Smooth Bromegrass	16	12	8	5	4	¼ in	3-15 to 5-1 or 8-1 to 9-25	3-1 to 4-20 or 8-1 to 9-25
Timothy	8	6	4	3	2	¼ in	3-15 to 5-1 or 8-1 to 9-15	3-1 to 4-20 or 8-1 to 9-15
Forage Chicory	6	5	3	2	2	¼ in	4-1 to 5-1 to 8-1 to 8-20	3-15 to 4-20 or 8-1 to 8-30
Legumes								
Alfalfa	15	11	7	5	4	¼ in	4-1 to 5-1 or 8-1 to 8-15	3-20 to 4-25 or 8-1 to 8-30
Alsike Clover	9	7	5	3	2	¼ in	2-1 to 5-1 or 7-20 to 8-30	2-1 to 4-25 or 8-1 to 9-15
Birdsfoot trefoil	9	7	5	3	2	¼ in	4-1 to 5-1	3-20 to 4-25
Kura clover	6	5	3	2	2	¼ in	4-1 to 5-1	3-20 to 4-25
Red Clover	11	8	5	4	3	¼ in	2-1 to 5-1 or 7-20 to 8-30	2-1 to 4-25 or 8-1 to 9-15
White Clover, Ladino	5	4	3	2	1	¼ in	2-1 to 5-1 or 7-20 to 8-30	2-1 to 4-25 or 8-1 to 9-15
White Clover, Dutch	5	4	3	2	1	¼ in	2-1 to 5-1 or 7-20 to 8-30	2-1 to 4-25 or 8-1 to 9-15
Warm Season Growth⁴								
Non-Legumes								
Big Bluestem	12	9	6	4	3	¼ in	4-1 to 6-1	4-1 to 6-1
Little Bluestem	10	8	5	3	3	¼ in	4-1 to 6-1	4-1 to 6-1
Caucasian bluestem	2	2	1	1	1	¼ in	4-1 to 6-1	4-1 to 6-1
Eastern Gamagrass	9	7	5	3	2	½ in	4-1 to 6-1	4-1 to 6-1
Indiangrass	12	9	6	4	3	¼ in	4-1 to 6-1	4-1 to 6-1
Switchgrass	9	7	5	3	2	¼ in	4-1 to 6-1	4-1 to 6-1
Legumes								
Lespedeza, sericea	20	15	10	7	5	¼ in	4-1 to 6-1	4-1 to 6-1

1. Planting depth is critical for successful establishment. Many failures result from planting too deeply.

2. Northern Ohio = Generally North of I70 - Southern Ohio = South of I70

3. For cool season species dormant seeding can be planned between Dec 1 to Mar 14; interceding clovers into existing grass stands are recommended from Feb to early Mar.

4. For warm season species dormant seeding can be planned between Nov 1 to Mar 14.

5. Invasive without proper management.

6. Consider planting low alkaloid varieties or endophyte free or endophyte friendly varieties.

7. Do not plant until after the Hessian fly free date: Varies from Sept 22 in Northern Ohio to Oct 5 in Southern Ohio. See the Ohio Agronomy Guide for specific date.

_____ Initials

6. Overwintering Cover Crops

Purpose

1. Encourage agriculture producers to establish an overwintering cover crop
2. Reduce sheet, rill, and wind erosion
3. Reduce water quality degradation due to excess nutrients
4. Increase cropping system diversity

Applicability

Applies to cropland acres in the 14-county program area. Acres receiving payment under any other county, state or federal program (CSP, EQIP, WL Small Grains, etc.) are not eligible.

Specifications

1. Establish overwintering cover crop no later than October 15
2. The completed practice must meet the criteria for seeding, establishment and maintenance per NRCS Appendix A, including seed quality and testing requirements
3. Seed mix must include a minimum of 50% of full rate of an overwintering species
4. Cover crop must be maintained until March 15
5. Crop can be harvested as a forage or grazed after March 15
6. Manure and/or fertilizer, based on the VNMP, may be applied prior to seeding or after March 15
 - a. Manure shall not be applied on frozen, snow-covered or saturated soils or applied when the local weather forecast for the application area contains greater than a 50% chance of precipitation exceeding one-half inch in a 24 hour period
 - b. Fertilizer shall not be applied on frozen, snow-covered or saturated soils or applied when the local weather forecast for the application area contains greater than a 50% chance of precipitation exceeding one inch in a 12 hour period
7. Producers may apply for up to three years of this practice

Technical Responsibilities

Producer Responsibilities

1. Provide VNMP to SWCD
2. Provide acres and field maps where cover crop is established
3. Provide seed tags or seed tests (including: % purity, % germ., % weed seed, Ohio noxious weed content) and bills for the cover crop

SWCD Responsibilities

1. Receive application from the producer and complete contract
2. Determine eligibility, excluding any existing acres where cover crops are already established, document plan on BMP Worksheet
3. Enter all required information into Beehive
4. Conduct site visits to verify overwintering cover crop are established and maintained until March 15
5. Process payment to producer

Participant Payments

Participants will receive \$25/ac payment annually, for up to three years, when verification of all program requirements are met. Funding for 2022 and 2023 is contingent on future funding of the program.

_____ Initials

6. Overwintering Cover Crops

Adapted from NRCS Appendix A - Seeding Tables. 11-19-19 – See Appendix A for additional guidance on establishment, maintenance, termination

Species	Overwintering ¹	Seeding Rates in Pounds PLS (Percentage of Mix)					Seeding depth (in)	North
		100%	75%	50%	33%	25%		
Winter Rye	Yes	50	38	25	17	13	1	8-1 to 10-15*
Winter Barley	Yes	59	44	29	19	15	1	8-15 to 10-10
Winter Wheat	Yes	64	48	32	21	16	1	9-22 to 10-15*
Winter Triticale	Yes	60	45	30	20	15	1	8-1 to 10-15*
Spelt	Yes	64	48	32	21	16	1	9-22 to 10-15*
Annual Ryegrass	Yes	18	13	9	6	4	0.5	8-1 to 9-20
Oats	No	40	30	20	14	10	1	8-1 to 9-20
Oilseed Radish	No	NR	NR	NR	2	1.5	0.5	8-1 to 9-15
Rapeseed/Canola/Kale ³	Yes	4	3	2	1.5	1	0.5	8-1 to 9-15
Mustards	No	4	3	2	1.5	1	0.5	8-1 to 9-15
Turnip	No	2.5	2	1	0.75	0.5	0.25	7-20 to 9-15
Alfalfa ⁴	Yes	16	12	8	6	4	0.25	8-1 to 8-15
Red Clover	Yes	9	7	5	3	2	0.25	7-20 to 8-30
Yellow Sweet Clover	Yes	8	6	4	3	2	0.25	7-20 to 8-30
Crimson Clover	Yes	12	9	6	4	3	0.25	6-15 to 9-15
Winter Pea	No	40	30	20	14	10	1.25	8-1 to 9-15
Hairy Vetch	Yes	16	12	8	5	4	1	8-1 to 9-20
Sorghum-Sudangrass	No	24	18	12	8	6	1	5-15 to 7-5
Sudangrass	No	20	15	10	7	5	1	5-15 to 7-20
Pearl Millet	No	12	9	6	4	3	0.75	5-15 to 7-20
Japanese Millet	No	14	11	7	5	4	0.75	5-15 to 7-20
Buckwheat	No	NR	NR	12	8	6	1	6-15 to 8-15
Sunflower	No	NR	NR	NR	4	3	2	5-15 to 7-20
Cowpea	No	60	45	30	20	15	0.75	6-15 to 8-1
Sunn Hemp	No	12	9	6	4	3	1	6-15 to 8-1
Berseem Clover	No	11	8	5	3	2	0.25	5-15 to 8-15
Soybean	No	54	40	27	18	13	1.5	6-15 to 8-15

* Dates adapted to meet program seeding requirements

1. Overwintering only when planted during the fall dates and establishment. Winter kill may occur
2. Do not plant until after the Hessian fly free date; dates varies from Sept 22 in northern Ohio to Oct 5 in southern Ohio. Wheat and spelt cover crops can be planted up to 20 days past the fly free date. See the Ohio Agronomy Guide for specific county dates.
3. Fall planted varieties planted in the fall are “non-winter killed”; spring planted varieties planted in the fall or spring are winter killed.
4. In order to meet the intent and definition of cover crops (seasonal vegetative cover) alfalfa must be terminated and managed as an annual. Alfalfa planted to provide forage for Conservation Crop Rotation – Forages must be maintained for a minimum of 2 years and meet guidelines for that program.

_____ Initials

7. Drainage Water Management

Purpose

1. Encourage producers to install and manage water control structures
2. Reduce nutrient loading to downstream receiving waters

Applicability

Applies to cropland acres in the 14-county program area. Acres receiving payment under any other county, state or federal program for Drainage Water Management (EQIP, LE-NRP, etc.) are not eligible.

Specifications

1. Outlet pipe needs to be a minimum of six inches in diameter
2. Outlet structures need to be installed per engineering plan
3. Minimum 10 acres controllable area based on a 30 inches control height with out submain installation
4. Minimum 20 acres controllable area based on a 30 inches control height with submain installation
5. Structures should not be installed on a main tile that drains another landowners land, unless written permission is obtained from the upstream landowners
6. Producer will provide SWCD or DSWC access to the control structure

Technical Responsibilities

Producer Responsibilities

1. Provide tile maps and any necessary written permissions from upstream landowners
2. Install structure per provided design
3. Manage structure in accordance with provided management plan and provide documentation annually for three years

SWCD Responsibilities

1. Receive application from the producer, document plan on BMP Worksheet, and complete contract
2. Locate sites to install practices
3. Enter all required information into Beehive
4. Obtain landowner agreement
5. Obtain current drainage tile plan
6. Design and lay out structures
7. Oversee construction
8. Verify structures are closed per the provided management plan annually for three years
9. Process payment to producer

Participant Payments

Producer will receive \$1,500 per site without submain installation. Producer will receive \$4,000 per site with submain installation. Producer may receive an additional \$200/structure/year in years two and three after operation and management records have been reviewed and certified by the SWCD. Funding for 2022 and 2023 is contingent on future funding of the program.

_____ Initials