

  
**Cover Crop for Improved Soil Health**  
 Alabama Practice Job Sheet  
 No. AL340



Prepared for: \_\_\_\_\_

Prepared by: \_\_\_\_\_

Farm: \_\_\_\_\_ Tract Number: \_\_\_\_\_ Date: \_\_\_\_\_

### DEFINITION

Cover crops are vegetative covers that include grasses, legumes, and forbs for seasonal cover and other conservation purposes.

### PURPOSES (check all applicable)

- Reduce erosion from wind and water.
- Increase soil organic matter content.
- Capture and recycle or redistribute nutrients in the soil profile.
- Promote biological nitrogen fixation and reduce energy use.
- Increase biodiversity.
- Suppress Weeds.
- Manage soil moisture.
- Minimize and reduce soil compaction

Cover crops are planted after the harvest of the cash crop and are killed just prior to planting the next crop to provide cover and to build soil health. This system is designed to: obtain maximum soil cover, improve the soil's physical, biological, and chemical properties, naturally cycle nutrients, reduce weed pressure, limit soil erosion, limit runoff, conserve moisture, etc. This system maintains soil cover and living roots when the field would otherwise be bare and fallow, helping to improve soil health.

### CONDITIONS WHERE PRACTICE

#### APPLIES

Croplands requiring vegetative cover for natural resource protection and or improvement.

#### SPECIFICATIONS

Plant species, seeding rates, seeding dates, and planting methods will be consistent with approved local criteria and site conditions as listed for this plan in Table 1. Table 2 lists management information for annual cover crop species commonly used in Alabama, for information on species not listed see Alabama cover crop standard (340).

To maximize biomass production and soil health benefits, plant cover crops as early as possible within the range listed in Table 1 and terminate as late as feasible. Insure that planting and strip tillage equipment is capable of handling the residue from the cover crop in the spring. Soil moisture should be considered when determining cover crop termination. In years where soil moisture is low and the extended forecast is for little rainfall, consider termination 4 to 5 weeks prior to the planned planting date. In years where soil moisture is abundant and the extended forecast is for additional rainfall, consider delaying termination until 2 to 3 weeks prior to the planned planting date to maximize biomass and soil health benefit.

Fertility requirements and planned fertilizer application should be based on a current soil test, yield goals and in accordance with the nutrient management standard (590). Planned application of nitrogen at planting should not be made if the proceeding crop was a legume or a poor yielding crop where residual nitrogen is likely.

### PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site, recorded in Table 1 and the narrative statements in the conservation plan.

### OPERATION AND MAINTENANCE

Evaluate the cover crop to determine if the cover crop is meeting the planned purpose(s). If the cover crop is not meeting the purpose(s) adjust the management, change the species of cover crop, or choose a different technology.

Control soil moisture depletion by selecting correct termination time of the cover crop. Make this decision before excessive transpiration affects the next crop by evaluating current soil moisture and predicted future rainfall.

Table 1. Site specific planned cover crop management information.

Tract/Field	Cash Crop Before and After Cover Crop	Species <sup>1/</sup>	Seeding Rate (lb/ac) & depth (in)	Seeding Date Range <sup>2/</sup>	Method D=Drill B=Broadcast A=Aerial	Planned Cover Crop Termination Date/Stage <sup>3/</sup>

<sup>1/</sup> Cover crop species selection should be based on producer's needs, appropriate for the intended purpose and meet all applicable program limitations. For specific management information on cover crop species, see Table 2, Alabama cover crop standard (detail listing) or contact the Conservation Agronomist for cover crops not listed.

<sup>2/</sup> The cover crop shall be planted within the given range, however planting as early as practical within the range will increase biomass production and improve soil health benefits.

<sup>3/</sup> Planned cover crop termination date/stage should allow the accumulation of sufficient biomass to meet the intended purpose(s). For example a producer may plan to kill the cover crop 2 weeks prior to planting the cash crop or if large amounts of biomass is needed a producer may plan to kill the cover crop after the cover crop flowers. Either way a decision should be made and documented in this column. However flexibility in the implementation of killing the cover crop is needed to insure the success of the practice. Consideration must be given to insure that equipment is capable of handling the residue in the spring and soil moisture is not depleted to a level that will affect cash crop emergence.

Table 2. Management information for annual cover crop species used in Alabama, for information on species not listed, see Alabama cover crop standard (340).

Cool Season Species <sup>1/</sup>	Type <sup>2/</sup>	Seeding Rate (lb/ac) <sup>3/</sup>	Seeding Depth (in)	Seeding Date Range		
				North	Central	South
Small grains (Oats, Rye, Wheat, barley, Triticale)	NL	90-120	1-2	Sep 1 – Nov 1	Sep 15 – Nov 1	Sep 15 – Nov 15
Brassicas (radish, turnip, canola)	NL	8-12	0- ½	Aug 25 – Oct 1	Sep 1 – Oct 15	Sep 15 – Nov 1
Crimson Clover	L	25	0- ½	Aug 25 – Oct 1	Sep 1 – Oct 15	Sep 15 – Nov 1
Hairy Vetch	L	25	1-2	Sep 1 – Oct 15	Sep 1- Oct 15	Sep 15 – Nov 1
<b>Warm Season Species</b>						
Browntop Millet	NL	20-30	½ - ¾	May 1–Aug 1	Apr 1-Aug 15	Apr 1-Aug15
Sorghum-Sudan Hybrids	NL	25-35	½ - 1	May 1–Aug 1	Apr 15-Aug 1	Apr 1–Aug 15
Forage Sorghum	NL	10-20	1	Apr 20-May 15	Apr 20-May 15	Apr 20-Jun 1
Buckwheat	NL	50-70	½ - 1 ½	Apr 20-May 15	Apr 20-May 15	Apr 20-Jun 1
Soybean	L	50-80	1-2	May 1–Aug 1	Apr 15-Aug 1	Apr 1–Aug 15
Sun Hemp	L	15-30	¼ - 1	May 1–Aug 15	Apr 15-Aug 15	Apr 1–Aug 15

1/. Determining seeding rates for cool or warm season cover crop mixes by lowering the seeding rate for each individual specie by the proportion that is needed to meet the needs of the producer. If grass (small grains, millet, sorghum-sudan, and sorghum) are included in the mix, never plant less than ½ rate with 2 species or 1/3 rate with 3 or more species for each individual grass in the mixture. When other forbs are contained in the mixture seeding rates shall not be less than ½ rate for each individual species in the mixture. Seeding dates should be selected based on the grass species.

2/. Type NL=non legume L=legume

3/. If broadcasting seed plant maximum seeding rate and consider increasing this rate by 10 to 20 percent to insure good stand establishment.

**Practice Design Certification (To be completed after job sheet is complete and before practice installation)**

The site specific requirements for the installation, operation, and maintenance of the practice on the client's treatment unit, as recorded in this job sheet, have been prepared in accordance with the 340 Cover Crop Standard and the guidance in the 340 Cover Crop Practice Specification:

**Planner:** \_\_\_\_\_  
(Signature)

**Date:** \_\_\_\_\_

**Landowner/Cooperator:** \_\_\_\_\_  
(Signature)

**Date:** \_\_\_\_\_

## EQIP Practice Guidelines

### 340: Cover Crops for Improved Soil Health

Participant Name: \_\_\_\_\_

Date: \_\_\_\_\_

Contract Number: \_\_\_\_\_

In addition to the general specifications, there are additional limitations if there are EQIP payments associated with the practice. There are six different payment options within EQIP, non-legume (organic/non-organic), legume (organic/non-organic), and cover crop mixed specie (organic/non-organic). Below is a list of limitations. A checked box indicates an item that must be met in order to complete the cover crop component of your conservation plan.

#### General EQIP limitations: (Applicable to all EQIP contracts)

- Acres eligible for the incentive payments are acres that have not adopted cover crops in the rotation or acres that have adopted cover crops (non-legume monoculture) but are adding legumes or diversity (mix specie). For example if the last non-cropping period was planted to a rye cover crop next non-cropping period is eligible to plant a rye/radish cover crop mix.
- Cover crop management must be according to site specific information listed in Table 1 in Job Sheet No. AL340 (planting dates, seeding rates, etc.).
- Cover crops may not be harvested (grain, hay, silage) or grazed in order to meet the intent of the eligibility requirements.
- The new cropping system may not result in additional tillage compared to the previous system (planned Soil Tillage Intensity Rating, STIR) must be equal to or less than the existing tillage system).

#### EQIP limitation on seed for organic contract (check if organic contract)

- Regardless of payment option (non-legume, legume or mix specie) if payment is for organic contract; cover crop seeds must be certified organic or the producer must document the organic seed was unavailable and within the requirements of their Organic System Plan.

#### EQIP limitations for non-legume cover crop (check if applicable)

- Cover crop species must be a cereal grain (Rye, Wheat, Oats, Barley, or triticale) cool season non-legume forbs (radish, mustard), warm season annual grass or forbs (sorghum-sudan, buckwheat) or a mixture of cool season cereal grains/forbs or a mixture of warm season annual grasses/forbs.
- Cover crop termination may not be earlier than 35 days before cash crop planned planting date or cover crop flowering whatever is first.

#### EQIP limitations for legumes cover crop (check if applicable)

- Cover crop species must be a cool or warm season legume, or a mixture of two cover crop species that contains at least one legume.
- Cover crop termination may not be earlier than 35 days before cash crop planned planting date or cover crop flowering whatever is first.

#### EQIP limitations for mix specie cover crop (check if applicable)

- Cover crop species must be a mix of at least 3 species of cool or warm season cover crops that includes both legumes and non-legumes.
- Cover crop termination may not be earlier than 35 days before cash crop planned planting date or cover crop flowering whatever is first.

**Alabama Practice Certification:**  
**340: Cover Crop for Improved Soil Health**

**Landowner/Cooperator** \_\_\_\_\_

**Field Office** \_\_\_\_\_

**Farm/Tract No.** \_\_\_\_\_

Applied seed calculations attached or the producer certifies that they possess records that document the right seeding rate was used. Yes\_\_\_ No\_\_\_

Termination of the cover crop was within the timeframe planned, and meets all applicable program limitation (no earlier than 35 days before cash crop planned planting date or cover crop flowering whatever is first for EQIP). Yes\_\_\_ No\_\_\_

If certified organic or transitioning to organic does the seed meet the requirements of the Organic System Plan or document that the organic seed was unavailable.  
Yes\_\_\_ No\_\_\_ n/a \_\_\_\_\_

**Notes:**


This practice has been installed according to the site specific installation requirements and meets standards and specifications:

**NRCS Certification:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
(Signature)