



**USDA NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE SPECIFICATION/JOB SHEET
ARIZONA**

COVER CROP

(Acre)

Practice Code 340

Lifespan: 1 Year

Cooperator	Design Date
Conservation District	Field Office
Land Unit(s)	Program
Practice Amount	County
Land Ownership	

Purpose: (Check those that apply or delete those that do not apply)

- Reduce erosion from wind and water
- Increase soil organic matter content.
- Capture and recycle excess nutrients in the soil profile
- Promote biological nitrogen fixation
- Increase Biodiversity
- Suppress weeds
- Manage soil moisture
- Minimize and reduce soil compaction

Method of Planting

Drills, no-till drill seeders, broadcast seeders, or aerial seeding may be used. Rates of seeding, planting dates and depth of seed coverage are found in the Cover Crop Species table and will be noted in table below. Broadcast or aerial seeding rates should be increased 1.5 to 2 times the drill seeding rate.

Inoculation

Legume seed will be inoculated with the appropriate nitrogen-fixing bacteria (Rhizobia) or an inoculated legume crop has been grown on the planned area within the last 5 years. Note: if the soil, prior to planting the legume, has 50 or greater pounds of residual nitrate nitrogen (NO₃-N) then inoculation is not beneficial and therefore not required.

Post Treatment

1. Cover crop residue will not be burned
2. For treating excess nutrients, the above ground portion of the plant will be removed from the field.

Cover Crop Establishment:

List selected cover crop species and required information in table below. Species may be selected from Cover Crop Species table in eFOTG or from a University, Agency or other peer reviewed publications. Seeding rates, based on pure live seed & purposes of the cover crop, will be listed in the table below.

Species	Planting Method	Planting Rate (lbs/ac)	Planting Depth (in)	Planting Date	Termination	
					Method	Date

General Specifications

If NRCS financial assistance is provided, you must comply with the planting plan (allowed to change crops as long as the replacement crop is a similar type to planned crop type i.e. warm season grass, cool season legume, etc.) and planting dates (+/- 2 weeks). NRCS will meet with you at least annually to determine if any adjustments are needed in the cropping sequence or field operations. Contact NRCS if additional adjustments are needed due to unusual circumstances (economics, water problems, diseases or pest outbreaks, etc.) to make changes to these specifications.

OPERATION & MAINTENANCE

1. The cover crop will be terminated as late as feasible to maximize plant biomass production, considering the time needed to prepare the field for planting the next crop. Cover crops may be terminated by harvest, frost, mowing, tillage, and/or herbicides in preparation for the following crop. To maximize biodiversity, especially pollinator habitat, allow flowers to mature before termination.
2. Herbicides used on cover crops will be compatible with the following crop.

DOCUMENTATION & CERTIFICATION Requirements

1. The established species shall provide a minimum of a 70% stand for irrigated cropland and 20% stand for non-irrigated cropland. Percent stand will be an ocular estimation based on percentage of plant emergence over the seeded area. Percent stand shall be determined when the species planted can be identified.

COOPERATOR ACKNOWLEDGEMENT

I acknowledge that:

1. I have received a copy of these specifications, including any attachments, and that I understand the contents, and the requirements for installation of this practice.
2. Maintenance of the installed work is necessary for proper performance for the life of the practice. For federally funded practices, this practice must be maintained for the expected life of the practice shown above.

Accepted by _____

Date _____

NRCS Planner/Certification

Designed by: _____ Approval Authority: _____ Date _____

I certify that this conservation practice was applied according to NRCS standards and this specification.

Certified by: _____ Approval Authority: _____ Date _____

Cover Crop Species Table ¹

Cover or Green Manure Crops	Drilled Seeding rate (lbs/ac)	Seeding Depth (in.)	Adaptation and recommended planting dates by MLRA				
			30, 31	35, 36	39	40	38, 41, 42
Annual ryegrass (Lolium)	10-20	0-½	Oct 15-Nov	Jul-Sep 15	Jul 15-Aug	Oct-Nov 15	Sep
Small grains (oats, wheat, barley)	80-120 50-70 ³	1-2	Nov-Feb	Aug-Sep 15	Sep	Oct 15-Feb	Oct-Apr
Cereal Rye	80-120 50-70 ³	¾-2.0	Nov-Feb	Aug-Sep	Jul-Aug	Oct-Feb	Oct-Dec
Buckwheat (Fagopyrum esculentum)	45-70	½-1 ½	Mar-Aug	May- June	Jun	Mar 15-Aug	April 15-Aug
Sudangrass	20-35 ³	1	Mar 15-Jul	May 15-Jun	Jun	Apr-Jun	May-Jun
Forage Sorghums	10-15 ³	1	Mar-Aug	May 15-Jun	Jun	Mar 15-Jul	May-Jun
Brassicas (Mustard, Radish, Rapeseed)	5-13	¼ - ½	Oct -Nov	Aug-Sep	Jun-July	Oct-Nov	Aug 15-Oct
Berseem clover	8-12	¼ - ½	Oct-Nov	Aug-Sep	Aug	Sep 15-Nov	Aug15-Nov
Cowpeas	30-90	1-1 ½	March-April	May-Jun	May 15-Jun	April-May	May-Jun 15
Crimson clover	15-20	¼ - ½	Oct-Nov	Aug-Sep	Aug	Sep 15-Nov	Aug15-Nov
Austrian winter peas	25-80	1-2	Oct-Nov	Jun-July	May-Jun	Sep 15-Oct 15	Aug-Sep
Vetch (hairy & woolypod)	20-40	½-1	Oct - Nov	Aug-Sep	May – Jun	Oct-Nov	Aug 15-Sep
Biennial sweet clover (yellow & white)	15-20	¾-1	Nov-Dec	Aug-Sep 15	Aug	Oct – Nov	Aug 15-Sep
Annual sweet clover (Huban)	15-20	¾-1	Oct-Nov	Aug-Sep 15	Aug	Sep 15-Nov	Aug 15-Sep 15
Sour clover	15-20	¾-1	Oct-Nov	Aug-Sep 15	Aug	Sep 15-Nov	Aug 15-Sep 15
Subterranean clover	10-20	¼ - ½	Oct - Nov	Aug-Sep	NR	Oct-Nov	Aug 15-Sep
White clover	3-9	¼ - ½	Nov-Dec	Jun-Jul	Jun-Jul	Sep 15- Nov	Aug-Sep
Sesbania	20-30	¾-1	Apr-Jul	NR	NR	Apr 15-Jul 15	NR
Guar	20-30	½-1	Apr-Jul	NR	NR	Apr 15-Jul 15	NR
*Alfalfa	10-20	½-1	Oct 15-Nov	Aug-Sep 15	Aug	Oct-Nov 15	Sep
*Orchardgrass	8	¾-1	NR	Aug-Sep 15	Aug	NR	Sep ²
*Tall fescue	10	¾-1	NR	Aug-Sep 15	Aug	Sept 15-Nov	Sep
*Tall wheatgrass	12	¾-1	NR	Aug-Sep 15	Aug	NR	Sep

* May be used for perennial cover in orchards, groves or vineyards.

¹ Bowman, G., C. Cramer, and C. Shirley. A. Clark (ed.). 2007. Managing cover crops profitably. 3rd ed. Sustainable Agriculture Network Handbook Series; bk 3. National Agriculture Library. Beltsville, MD.

² Not recommended for use below 3000 feet in elevation.

³ Lower seeding rate can be used if primary purposes are for crop protection and wind erosion,