NRCS, NC Jan 2007

ADDENDUM TO 595 PEST MANAGEMENT JOB SHEET

EQIP 595 PRACTICE GUIDELINES: Reduced-risk options to current Methyl Bromide use in fumigated fruits and vegetables

EQIP 2007 Cost list item: (1)595--IPM—Cover crop and Chemigation Management System (15 acre practice maximum per operation for FY 2007)

*This practice requires use of an alternative fumigant to Methyl Bromide as described in Job Sheet Addendum "Reduced-Risk Alternative Fumigants to Methyl Bromide". Practice criteria and recordkeeping for alternative fumigant use must be in accordance with "Reduced-Risk Alternative Fumigants to Methyl Bromide" job sheet. Participants may receive EQIP cost-sharing for both practices.

Name/EQIP Contract #:_____

General description/Purpose of practice: Use of the fumigant methyl bromide has been shown to cause atmospheric ozone depletion, and it is also a biocide that has significant negative impacts on beneficial soil organisms that enhance soil quality. Alternative fumigants to methyl bromide have been developed to mitigate the impacts to air and soil resources. Row middles and row ends in specialty crop operations are a source of erosion that can degrade soil and water quality due to surface runoff. Fall cover crop establishment will remedy erosion problems and help enhance soil quality and protect water quality.

Applicant initials

Conditions for practice eligibility: To be eligible for this practice, producer must have utilized methyl bromide on fruit/vegetable cropping systems during the previous crop growing season, AND have NOT planted cover crops in row middles and/or ends as a method to prevent surface runoff of sediment.

Practice procedures and criteria:

- Fruit or vegetable beds will be established in the fall utilizing either: (1) an alternative fumigant to Methyl Bromide, or (2) no fumigation. If fumigation is not utilized in fall bed establishment, then a spring alternative fumigant treatment (*Inline or metam sodium/potassium product*) through additional drip irrigation line would be made after beds "warm" and approximately 21 days prior to planting.

- Cover crop suitable to site shall be established between beds immediately after bed formation (in row middles and row ends). See Table 1 for list of approved cover crops (alternative cover crops to those shown in Table 1 must be approved by the ASTC-Technology). Cover crops must be planted according to the NRCS Standard 340, Cover Crop, and stand must be adequately verified by Designated Conservationist.

- Cover crop must be left in place for a minimum of 3 months to allow for crop maturity that will result in increased soil organic matter content

- Cover crop will be "knocked down" with roller or with herbicide application prior to planting

- Plant production crop directly into either fall fumigated or spring treated beds

- This management sequence must be implemented for 3 years, although incentive payment will be made in the first year after cover crop establishment

and/or additional drip irrigation line installation. For spring treatments, drip line will have to be installed each year—incentive payment for installation only made ONCE, after the first installation.

TABLE 1--COVER CROP PLANTING GUIDE (from NRCS 340 standard)

Cover Crop Type	Planting Rates	Planting Dates	BioMass Produced
		1. Coastal Plain 2. Piedmont 3. Mountains	(lbs./ac.)[6]
Annual Lespedezas [1]	20-40 lbs.	1. February 1 – March 15 2. February 1 – April 1 3. March 15 – April 15	2,500
Austrian Winter Pea [4]	30-40 lbs.	1. August 25 – October 25 2. August 25 – October 15 3. N/A	4,000
Barley	2-3 bu.	1. September 1 – October 15 2. August 20 – October 10 3. August 01 – October 10	4,000
Crimson Clover [4]	15-30 lbs.	1. Sept. 15 – November 15 2. Sept. 5 – November 5 3. Sept. 1 – November 1	4,000
Hairy Vetch [5]	30-40 lbs.	1. August 25 – October 25 2. August 25 – October 15 3. July 15 – August 30	5,000
Oats	3 bu.	1. September 1 – October 15 2. August 20 – October 10 4. August 1 – November 1	4,500
Pearl Millet [3]	6-10 lbs. in row; 20-25 lbs. drilled or broadcast	1. May 5 – July 5 2. April 25 – June 30 3. April 15 – June 30	6,000
Rye	2 bu.	1. Sept. 15 – November 1 2. Sept. 5 – November 1 3. August 15 – November 1	7,500
Ryegrass [5]	30-40 lbs.	1. Sept. 15 – November 15 2. Sept. 15 – November 1 3. Sept. 1 – November 1	7,000
Sorghum-Sudan Hybrids [1, 2]	15-20 lbs. in row; 35-40 lbs. drilled or broadcast	1. May 5 – July 5 2. April 25 – June 30 3. April 15 – June 20	8,500
Triticale	1 ½ bu.	1. Sept. 15 – Nov. 30 2. Sept. 1 – Nov. 20 3. Aug. 20 – Oct. 20	6,000
Wheat	2-3 bu.	1. Oct. 25 – November 15 2. October 10 – November 1 3. October 1 – November 1	6,000

Other – such as summer cover or other species not listed--Contact NC Conservation Agronomist for guidance.

[1] Tolerates fairly acid soil but performs best when a soil pH of 6.0 to 6.5 is maintained.

[2] Potential danger from prussic acid poison if plants are frosted, stunted or young growth is grazed. Do not allow horses to graze the green plants; apparently the hay may be used if properly cured.

[3] No problem with prussic acid.

[4] Inoculate seed. [5] May at times become a pest since it volunteers readily. Herbicides can now be used effectively to reduce this problem. [6] Mid range of production. Amounts will vary ± 50% depending on numerous factors. Top growth only

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595 EQIP RECORDKEEPING DOCUMENTATION
Cover Crop Mgmt System w/ Methyl Bromide Alternative (3-year practice)

Producer/Farm Name:_____

EQIP Contract No.:_____

Tract(s):_____

Field(s):_____

- ***NOTE: Required alternative fumigant recordkeeping should be completed on companion recordkeeping form to "Chemical Alternatives to Methyl Bromide" Job Sheet***

- **Additional Drip Irrigation Line Installation (if necessary):**
  Amount installed in first contract year: _____ (Feet)
  2nd year:_____ 3rd year:_____

I certify that additional drip irrigation line for spring fumigant application has been installed to meet manufacturer's recommendations and practice criteria (first year):

Signature **Date**

Record of Cover Crop Establishment:

Type of cover crop planted (from Table 1) & Seeding rate	*Date planted/seeded*	*Date of "Knockdown" (Cover crop kill)*	*Certification of adequate stand/comments (Completed by Designated Conservationist)*