METHYL BROMIDE ALTERNATIVES

A Step-by-Step Guide for Strawberry Growers Participating in the NRCS EQIP 595 Pest Management Practice: Reduced-risk options to current methyl bromide use in fumigated fruits and vegetables

Note—NRCS is currently revising its Pest Management policies and standards at the national level. It is anticipated that these changes will be finalized and issued during fall 2009. Once national policy and standards are released, NRCS in North Carolina must revise its pest management standard to comply with national standard criteria. It is currently unknown as to the implications of the national standard revisions on NC NRCS EQIP practices – like alternatives to methyl bromide. It is possible that national policy criteria will be restrictive or prohibitive in regard to practices that mandate use of specific types of chemicals. You are advised to contact your local NRCS office during Fall 2009 for additional information on the availability of EQIP practices.

Use of the fumigant methyl bromide has been shown to cause atmospheric ozone depletion and its use is rapidly being phased out. It is also a biocide that has significant negative impacts on beneficial soil organisms that enhance soil quality.

To be eligible for this practice, you must have utilized methyl bromide as a fumigant in your strawberry production during the previous crop growing season. A maximum of 15 acres can be included in the program. You may receive a cost-share *annually* on this same acreage for up to 3 years, but you can receive this incentive only once. If you choose to implement this management system for only one year instead of the maximum 3 years, you cannot receive the incentive again. *If you use VIF plastic with your alternative fumigant, you may also be eligible for the cost-share program fork that practice.*

Step 1. Choose the most appropriate alternative fumigant(s) for your strawberry fields.

Only EPA-approved chemical alternatives to methyl bromide can be used. NRCS does not recommend any specific fumigant. You are strongly encouraged, as part of your pest management planning process, to consult qualified professionals to assist in selection of an appropriate alternative fumigant. The following fumigants are approved for use in strawberries at this time:

- Telone (1,3-dichloropropene)
- Telone C-35 (1,3-dichloropropene + chloropicrin)
- Inline (EC Formulation of Telone C-35)
- PicClor 60 (chloropicrin + 1,3-dichloropropene)
- MIDAS (iodomethane)
- Vapam/K-Pam or similar (metam sodium, metam potassium) to aid in weed suppression
- Iodomethane (Midas)

Non-fumigant chemical or non-chemical alternatives (must be approved by ASTC-Technology) may also qualify for this practice.

Alternative fumigants may require modifications to your fumigation rig.

Different fumigants work better in different situations. Your land, weed pressures, disease issues, and fumigation equipment are all factors. You may wish to use the *Alternatives to Methyl Bromide Workbook* to help you decide your best choice and figure out what changes you will need to make in your fumigation practices.

Step 2. Change, acquire, or adapt fumigation equipment and practices as needed.

Alternative fumigants or non-fumigant chemicals will require changes to your fumigation rig and other equipment. They may also have additional applicator training and certification, worker protection, bystander safety (buffer zone) requirements, and plant-back intervals. Your fumigant dealer and/or Cooperative Extension agent can assist you with details. You may also see the *Alternatives to Methyl Bromide* workbook for details. Note that EPA will be requiring new safety requirements for many fumigants starting in 2010 and 2011.

Step 3. Apply alternative to MB fumigation.

You can apply the alternative products yourself or have the work done by a custom applicator.

- Follow an application schedule that takes into account the required re-entry intervals and recommended plant-back times for the alternative products/practices you use.
- Apply your selected chemical alternatives in accordance with all label directions, restrictions, and precautions.
- Use application rates based on product recommendation for your crop. Remember that application rates may be reduced when VIF plastic mulch is use. Details on rate reduction can be obtained from the *Alternatives to Methyl Bromide* workbook, your Cooperative Extension agent or your chemical dealer.
- Be aware that some alternative chemicals stay in the soil longer under cool and/or wet soil conditions. If there is concern about plant-back times, test the fumigated bed for residues. Details can be found in the *Alternatives to Methyl Bromide* workbook.

Document which alternative(s) to methyl bromide you are using, the application rates, method of application, area treated, crop to be produced, and dates applied on the recordkeeping form provided or other similar document. This recordkeeping documentation must be provided to the designated conservationist in order for the practice to be certified as complete.

For more information, see http://www.ncstrawberry.org/docs/fumigationresources.htm