



November 5, 2007

Steven Bradbury, Ph.D.  
Director, Office of Special Review and Reregistration  
C/O Office of Pesticide Programs (OPP)  
Regulatory Public Docket (7502P),  
Environmental Protection Agency,  
1200 Pennsylvania Ave., NW, Washington, DC 20460-0001

VIA E-mail: EPA-HQ-OPP-2005-0123  
EPA-HQ-OPP-2005-0124  
EPA-HQ-OPP-2005-0125  
EPA-HQ-OPP-2007-0350

**Re: Proposed Risk Management Options for several pesticide products which are fumigants, namely EPA-HQ-OPP-2005-0123 for Methyl Bromide; EPA-HQ-OPP-2005-0124 for 1,3-Dichloropropene; EPA-HQ-OPP-2005-0125 for Metam Sodium/Potassium; and EPA-HQ-OPP-2007-0350 for Chloropicrin**

Dear Dr. Bradbury:

Florida Fruit & Vegetable Association (FFVA) is a voluntary trade association whose membership produces fresh fruits and vegetables in Florida. A significant segment of the industry relies on plastic mulch culture to provide yields and quality of product that assures competitiveness in this time sensitive and highly sophisticated industry. Virtually 100 % all tomatoes, strawberries, cucurbits, peppers, and eggplants production is dependent on this technology. The cornerstone and foundation of that production is the use of soil fumigants at the time of land preparation and laying of the plastic mulch. These individual industries represent over one billion dollars in annual farm gate revenues and provide employment of several thousand in the state. The fumigation practices associated with these crops have evolved over the forty year history of plastic mulch culture.

We are pleased to provide comments as the Environmental Protection Agency (EPA) reviews the history of use and the more sophisticated risk assessments associated with potential occupation and by-stander exposure. FFVA has been actively engaged in this multi-product review through attendance at EPA's Science Advisory Panel reviews of industry proposed modeling for Metam- Na, Iodomethane, and 1,3-dichloropropene, the public technical briefings and by providing two different tours of Florida production

areas (January of 2005 and August of 2007) as the Agency developed their knowledge base on current practices and the feasibility of the various options being proposed for mitigation of the modeled risk. The diversity of production areas in Florida are primarily differentiated for soil fumigation purposes by soil type, intended crop, production season and geographic region. All of the fumigants in this rule making are used by significant portions of the producers represented by FFVA with the exception of Dazomet. This product requires the use of overhead irrigation to activate the product and as a result is not compatible with current production practices. All others are used at some level and in some cases are either co-applied or applied as formulated mixtures to provide the broad spectrum weed, soil pathogen and nematode efficacy sought by the growers. Many variables impact the grower decision of which products to use and at which rate. FFVA's comments will not attempt to capture the site specific issues but will focus on the broad policy issues created by the proposed mitigation options. FFVA, did however, solicit this type of information from its membership for direct submission to the regulatory docket. Also, as the petitioner for Critical Use Exemptions for methyl bromide over the past five years, the Association has submitted detailed descriptions of the use of soil fumigants and the production practices associated with them. These detailed descriptions can be found in the regulatory docket associated with the US Critical Use Nomination, and subsequent Allocation Rules under the U S Clean Air Act, these petitions and their reviews by EPA and USDA are incorporated by reference to this public comment (EPA-HQ-OAR-2003-0230, EPA-HQ-OAR-2005-0122, EPA-HQ-OAR-2005-0528 and EPA-HQ-OAR-2006-1016).

FFVA'S comments will focus on policy issues in four major areas:

- Complexity of Production Practices
- Buffer Zones
- Fumigation Plans, and
- Stewardship Programs.

Each of these areas is of particular importance as the EPA moves forward to finalize mitigation options. The typical process of negotiations with individual registrants will need to be informed by the collective efforts across the fumigants as a group. This is especially true since most are used in combinations with each other depending on the site specific characteristics dictated by cropping patterns and pest pressure. A single set of options based on a broad based geographical use pattern will not allow the flexibility necessary to maintain the efficacy of these tools.

### **Complexity of Production Practices:**

As detailed in the FFVA petitions for methyl bromide Critical Uses, the use of fumigants is highly crop specific. Application methods vary from broadcast non-tarped applications of 1,3- Dichloropropene with Yeutter rigs as much as six to eight weeks prior to land

preparation and bed formation to in-bed (or pre-bed) knifed-in immediately prior to plastic laying to irrigation system injected applications after the plastic is laid. Use rates are variable but the majority of applications are made in-bed and as a result is well below the broadcast application rate per treated acre. The actual treated acreage is a function of the bed width and distance between beds with a further complication created by the need for access between the planted beds for harvesting and the positioning of lateral ditches to serve as storm water management conveyances. All of these factors have to be very clearly delineated as to their impacts on the mitigation options selected for each of the fumigants included in this review. The recently approved iodomethane label appears to take this into account somewhat through the potential for buffer mitigation depending on application methodology and other site specific application factors.

Another factor to be considered is barrier technology, whether through the use of films with higher containment of the fumigants or other sealing methods that may be available. This is an area that is actively being researched and any requirements included as mitigation options will need to have flexibility built in to allow for adoption of these practices in the future. As these barrier films are introduced, the Agency should consider development of a standard for establishing the level of emissions reduction the film is required to provide to prevent off gassing at a rate necessary to minimize risk to workers and by-standers. The most promising of the non-film barrier technology is surface application of a thiosulfate water seal. This promising technology needs to be further examined across all production regions.

### **Buffer Zones:**

While this option appears to be the easiest to impose and regulate it can have major negative impacts on the regulated community. As documented in publications by Dr. Stanley Culpepper, University of Georgia and Dr. Joseph Noling, University of Florida, the potential impacts of buffers represents significant loss of economic production for crops and locations they studied. FFVA has major concerns over the application of the worst case analysis to determine the size of buffers required for mitigation. Based on over forty years experience in Florida, our experience that the level of off-gassing projected by the existing models and the meteorological information currently available are extremely conservative and represents an over statement of potential risks. We encourage the Agency to further develop a method to efficiently and economically measure emissions under actual field conditions to better define needed buffer areas, if that is the mitigation option selected. We would encourage further dialogue with the research community actively engaged in the USDA Area-wide Pest Management Program for Methyl Bromide Alternatives to allow collection of this information from a diverse set of cropping patterns and application methodologies.

Further clarification of the buffer zones is needed. It is our understanding that the buffer zone as proposed by the Agency is from the edge of the treated area to occupied structures. If this is the case, does this include farm offices and outbuildings even if these structures are only occupied for a portion of any 24 hour period during the restricted period? Also, the references to “sensitive sites” need to be further clarified. Is there a definition of these sites, and who is responsible for identifying them prior to application?

We are encouraged by the recent registration decision that allows for buffer zone reduction credits based on adoption of emissions reductions technology. We are interested in the methodology to be utilized by the agency to track and verify steps taken by the applicator to document the process that allows these reductions. How would these types of credits be utilized when there are multiple fumigants being applied at the same time?

One of the options for reducing the concentration of off-site movement is the adoption of restrictions on the size and location of adjacent fumigated areas. For many of the current farms utilizing fumigants, this would represent a significant burden by increasing the management complexity in a compact application window dictated by market forces. This is especially true for the many small acreage farms engaged in strawberry production. The limited acreage and distribution of the farms would make any change from current practice even more problematic.

### **Fumigant Management Plans:**

It is our assumption that all of the fumigants included in this review will be classified as restricted use; we are supportive of this classification to equalize the record keeping and application oversight burden across the fumigants as a class. While this increases the documentation required surrounding the purchase and use of all fumigants, the actual impact in reducing or mitigation by-stander risk is somewhat nebulous. We are concerned that many of the applications in Florida are made by growers or their employees and not by custom applicators as is the case in other regions of the country. To facilitate this action a major revision in the applicator training and certification process may be required. We would like to recommend that a fumigant category for applicator certification be developed in cooperation with the regulated community that provides the basis for determining the competency necessary to safely and effectively utilize all preplant fumigants. Core competency would need to be demonstrated across application methodologies and crop specific needs of each region for which fumigants are registered. While this training would need to be customized by region the basic core information should be standardized.

Florida does not have the infrastructure or the resources to implement the permit system currently in place in California. FFVA is not opposed to requiring some level of documentation that the application of fumigants meets the safety standards and requirements envisioned in the many mitigation options provided in the notice published with the Federal Register Notice accompanying the request for comments. However, this documentation effort must be developed to provide the flexibility to meet the site specific needs of the individual application while preserving the safety of workers and incidental exposures to by-standers. We are extremely concerned that an overly restrictive and burdensome documentation process will do little to minimize targeted exposure routes while creating an unreasonable liability at the applicator level. We will be happy to work with the Agency to develop appropriate documentation processes if this becomes a requirement for the fumigants to be eligible for re-registration.

If fumigant management Plans are to be utilized, FFVA would strongly recommend that a work group be convened as soon as possible including; EPA, USDA, State Lead Agencies, impacted stakeholders and fumigant registrants, dealers and custom applicators to discuss the content and how to best implement such a plan. One option for convening the advisory group would be under the auspices of the certification and training group with USDA. I would anticipate that the educational component and enforcement of the fumigant management plan would fall to the State Lead Agencies that are currently responsible for licensing applicators and enforcement of pesticide regulations at the state level. If so, a funding source should be identified to cover the expenses at the state level.

### **Stewardship Programs:**

FFVA is a strong proponent of a comprehensive fumigant stewardship program and would be willing to help develop such a program. While each of the individual fumigants included in the cluster review have their own specific characteristics and concerns, the overarching stewardship program should be one of fumigant safety and application methodologies that prevent potential harm as a result of application. To maximize the utility and standardization of such a program it must be developed in cooperation with EPA and USDA. The end result can be made part of any labeling requirements that accompany the reregistered fumigants included in the review but the required components and specific safety information to be conveyed must be clearly articulated. This process will require a commitment of funding for both development and training to ensure all of the required elements are covered.

Properly done the stewardship program could be the basis for the certification training suggested as part of the fumigant applicator certification process described above. The emphasis of such a program should include guidance for compliance with any mitigation requirements and complete discussions of why such mitigation is necessary. Any criterion that is uniquely specific to use of fumigants should also be highlighted.

Steven Bradbury, Ph.D.

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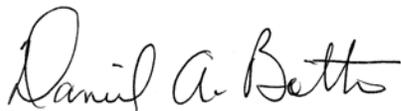
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At the very least the initial development of the stewardship program should commence during consideration of comments on the mitigation options to ensure that the program is ready to implement with the issuance of the Registration Eligibility Document. As stated previously, FFVA is willing to help develop and provide educational outreach for our membership for any stewardship program that would allow continued use of these critically needed tools.

**Conclusion:**

FFVA would like to emphasize the extreme importance of Fumigants to our production systems and the resulting availability of wholesome fresh fruits and vegetables to consumers in the US and abroad. These crops would not be as readily available without the increased yields and quality afforded by the safe and responsible use of soil fumigants. We look forward to working with the Agency as it considers our comments and will be available to any questions you may have. Please feel free to contact FFVA at any time should additional input is needed.

Sincerely yours,

A handwritten signature in cursive script that reads "Daniel A. Botts".

Daniel A. Botts, Director  
Environmental & Pest Management Division  
Florida Fruit & Vegetable Association

cc: FFVA Board of Directors