

Development and Implementation of a Statewide Training and Education Program for the Use of Soil Fumigants in Arizona Crop Production Systems

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Introduction

Soil fumigation has long been an effective means of controlling a variety of pests in Arizona crop production systems. Safe and efficient use of these pesticides is critical to maintain their availability for our clientele across the state. With EPA's upcoming implementation of risk mitigation measures for soil fumigant pesticides, there is a specific and defined need for educational outreach to local stakeholders and potential users of soil fumigants. The magnitude of the changes in labeling and various requirements for the safe use of these materials requires dedicated training and specific outreach programs for fumigants. The situation in Arizona is even more urgent; because of the important and strategic role certain fumigants play in our state (e.g., 1, 3 dichloropropene use for cotton root knot nematode control; meta sodium for weed and pathogen control). The requested funding will facilitate our efforts statewide to deploy pesticide training programs targeting stakeholders impacted by fumigant label changes and requirements. In collaboration with the Arizona Department of Agriculture (ADA), EPA personnel, Cooperative Extension faculty, and industry representatives we will develop training materials and deploy grower trainings that will focus on the specific requirements of the new risk mitigation measures for soil fumigant pesticides. We have identified team leadership, subject experts, and industry collaborators that will join this effort to prepare end users in our state for these fumigant use changes.

Specific Proposed Plan of Action

Development of training materials:

In conjunction with industry representatives, a series of training materials will be developed in the form of bulletins and fact sheets that can be deployed as part of our educational training sessions. These will be published through The University of Arizona as Extension Bulletin publications. These publications will also be developed into presentation slide decks that may be used in oral presentations during training sessions conducted throughout the state. All these materials, both electronic (slide decks and publications) and hardcopy, will be included in a packet that will be distributed to all training participants.

Implementation of Training Materials:

A series of workshops will be developed and delivered that will involve UA extension personnel along with industry representatives, ADA personnel and EPA personnel. These workshops will be conducted in

targeted areas around the state where soil fumigants are known to be used, as identified by the team members. Optimum timing of these workshops will be determined by the project team and will coincide with anticipated soil fumigant use in the targeted areas.

Workshop locations will be determined by the project team members and will be directed to regions of the state where soil fumigation is most widely used. Use pattern data is available and will be used to target both locations and individual operations for these training events. Team members will make a concerted effort to contact all stakeholders that currently use soil fumigants to ensure an opportunity for them to participate in the training process. These trainings will also be advertised widely through mailing lists, email lists and on the ACIS website to invite all producers regardless of their use of soil fumigants. Our goal will be to target every producer in the state that is currently utilizing soil fumigants as a part of their production practices. We will work with the Arizona Department of Agriculture to obtain Continuing Education Units (CEUs) for all training sessions. These training sessions and accompanying materials will be designed to provide essential pesticide safety information to enable them to continue to safely utilize these pesticides in their production systems. In addition, all training presentations and Extension training bulletins, etc., will be made available on a designated website for future end-user reference.

Requested Budget

Budget Category	Budget Amount
Development and publication of Training Materials	\$5,000
Travel Expenses	\$3,000
Training Session Support (meals and refreshment)	\$2,000
Total Budget	\$10,000

Description of Budget Items:

Development and Publication of Training Materials: This will involve identifying and bringing needed resources together and compiling them into publishable materials in the form of bulletins. This also includes printing and publication costs along with costs associated with packaging all these materials into a single concise resource that can be distributed at training sessions

Travel Expenses: This budget item will be used to cover expenses associated with travel incurred by those individuals delivering workshops across the state. This will also cover travel expenses associated with any project team face-to-face meetings. Travel expenses will include those of Cooperative Extension personnel as well as in-state and out-of-state partners.

Training Session Support: This budget item will cover costs associated with conducting the training workshops including food and refreshments provided to participants.

Expected Outcomes and Impacts

It is expected that individuals participating in the training workshops will obtain increased knowledge in the safe and effective use of soil fumigants in their crop production systems. It is also expected that participants will obtain critical information related to the EPA’s implementation of risk mitigation

measures for soil fumigant pesticide use in Arizona. This knowledge will allow them to continue to safely and effectively use these pesticides which are critical to the success of their farming operations. A pre-and-post questionnaire will be implemented at the trainings to measure changes of knowledge that occur as a result of the trainings.

Plan for Evaluation

A series of questions will be developed by the project team that will be administered to the participants in the form of a pre/post test to assess knowledge gained as a result of the participant's attendance at the training workshops. Soil fumigant use pattern data will also be monitored as a change from the baseline (prior to workshop deployment). A follow-up survey will also be developed that will be deployed at a prescribed time interval, to be determined by the team, after the training workshops to determine if safety measures are implemented in the grower's use of soil fumigants. All of the data collected from the evaluation portion of this proposal will be summarized in the final report.