EXTENSION OUTREACH FOR THE SOUTH ATLANTIC AREA-WIDE PROGRAM FOR INTEGRATED METHYL BROMIDE ALTERNATIVES

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In 2006, the USDA ARS funded South Atlantic Areawide Pest Management Project for methyl bromide (MBr) alternatives was initiated with the overall objective to demonstrate and optimize alternatives to methyl bromide for management of soilborne pests in the major agricultural production systems which were then currently dependent upon methyl bromide soil fumigation. The research and grower demonstration component of the South Atlantic project officially concluded September 30, 2011. In addition to the research and demonstration component, an extension education component was initiated in July 2008 with the overall objective to develop and implement a coordinated regional extension and education program to advance the implementation of alternatives to methyl bromide. The objectives for this project component were to be carried out by 1) developing a website for the South Atlantic component USDA, ARS Area-Wide Pest Management Project for Methyl Bromide Alternatives that will serve as a direct source of information on alternatives to methyl bromide for growers, industry professionals and the general public and 2) to develop a written document to be used by extension personnel and stakeholders to serve as an information/decision making matrix for the selection and implementation of alternatives to methyl bromide. The overriding goal is to assemble, organize, and distill the information generated from five years of regional and cooperative research, and to extend this information and database to end users in the form of an internet website.

For the life of the website, University of Florida Research and Extension Specialists will provide essential guidance in adapting it to meet the evolving educational needs of stakeholders that are adapting to production of agricultural products without methyl bromide. The overall emphasis of the South Atlantic Areawide website will be to facilitate science-based dissemination and implementation of safe and effective use of various methyl bromide alternatives. It is anticipated that the website will become active late in 2012 and remain active, with periodic updates, through at least 2015. A website specialist from the University of Florida has been hired and a domain name has been purchased and registered. For the South Atlantic website, the University of Florida Office of Information Technology Web Services has been selected as the official platform to host the website.

The website features user-friendly navigation and information architecture within a visually rich presentation of research field slides and graphics. Currently the South Atlantic AreaWide Project website utilizes a navigation plan involving combinations of horizontal tabs and vertically organized components, relating how users might move and interact with the site. This was an essential first step to be considered in designing the navigation buttons and other "point-n-click" links

The website will include a variety of web applications which will add functionality to the website and include search routines to be conducted by author and project members, crop commodity, as well as by key words within citation lists. It will include interactive programs assisting users in formulating management considerations of fumigant and no fumigant alternatives within a Pest Management Matrix component. For the matrix, project reports and general pest management literature is being searched and scrutinized for crop and product specific information which couples efficacy and plant yield, and for factors contributing to product performance and inconsistency.

Currently components of the South Atlantic Areawide website include:

- Methyl bromide (history, importance, detection in stratosphere)
- Importance and Role of soil fumigants
- Currently Registered Fumigants
    - Physical, chemical characteristics
    - Toxicology and spectrum of activity
    - Movement in soil and persistence
- Role/influence of the environment
- Causes of performance inconsistency / Shortcomings
- Strategies currently considered Next Best (state x state)
- Non-fumigant, nonchemical alternatives,
- Cropping systems/farm management approach
- Past / present/ future research

It will also include databases enumerating USDA ARS/CSREES/NIFA/ERS research projects by crop / commodity, State, PI and CoPi, fumigants, pests considered, factors considered, and methods of fumigant application to name but a few. The objective is to provide a bibliography of projects and documents generated from State, Federal, commodity funding on MBr alternatives, as well as a database enumerating Cooperative

Extension Publications referencing MBr, fumigants, calibration, PPE, Soil fumigation Manuals, and Fumigation Training Modules. All databases will provide opportunity to be searched by author, Alternatives Research / Replacement strategies. Other types of information to be archived within the database will include annual reports, peer reviewed publications, extension fact sheets, popular articles, abstracts, and observations. The Areawide Websites will have a large number of links to external pages, including California Strawberry Commission Website and Funded Research, U.S. EPA databases (EPA Phase-out Website, Reregistration, etc.), MBAO Proceedings and Presentations, U.S.DA. (ARS, CSREES, NIFA) Publications- USDA National Archive, United Nations Environment Programme (TEAP, MBTOC, Multilateral Fund) and other Conference Proceedings (Biofumigation, The EU conference, etc.).