USDA Agricultural Research Service
Assessment of National Program 308: Methyl Bromide Alternatives
December 2005

Executive Summary

A panel of six was convened in Beltsville, MD December 6-7, 2005 to conduct a 5-year retrospective review of USDA-ARS National Program 308 (Methyl Bromide Alternatives). NP 308 was formed as a response to the US becoming signatory to the Montreal Protocol and the resulting need to phase out methyl bromide in a relatively short time frame. The review was meant to be an overarching one rather than a project-by-project review that is regularly conducted by the Office of Scientific Quality Review. The panel was provided with a retrospective Accomplishment Report (2000-2005) that focused on the overall impacts of selected projects within the national program. In addition, panelists were able to draw on other resources including publications, databases and their professional knowledge of the research areas within NP 308. The panel was also given a brief overview of NP 308 by USDA-ARS leadership (Dr. Judy St. John, Deputy Administrator, Crop Production and Protection; Dr. Kenneth Vick, National Program Leader, Postharvest Entomology; Dr. Rick Bennett, National Program Leader, Plant Health) prior to its deliberations.

The panelists would like to thank ARS Program Staff including Ms. Marilyn Low, Pamela O'Dell, Barbara Zapp and Rosemary Callahan for their assistance during the review process.

The NP 308 panel was:

Gary Obenauf, Agricultural Research Consulting, Panel Chair
Mike Aerts, Florida Fruit and Vegetable Association
Dan Legard, California Strawberry Commission
Jim Bair, North American Millers' Association
Bill Chism, EPA-OPP
Larry Zettler, USDA-APHIS

The Accomplishments Report of NP 308 was developed by the national program leadership staff based on impact statements submitted by ARS scientists. The panel assessed these accomplishments against commitments (goals and objectives) identified in the action plan created at the beginning of the five year cycle. Based on this assessment and review, the panel made specific recommendations for each of the problem areas. These were largely based on the following assessment criteria in relation to methyl bromide use in 2000 (see Table Research Component 1: Preplant soil fumigation treatment and Table Research Component 2: Postharvest Commodity Treatment):

1. Environmentally Acceptable

2. Practical
3. Economically Feasible
4. Sustainable (Preplant only)
5. Effective
6. Outreach
7. Potential Impact

Criteria 1-4 were goals taken from the 308 Action Plan and criteria 5-7 were added by the committee. It should be pointed out that criterion number 4 was applied only to the Preplant programs. Ratings for all six or seven criteria were added together (one for each "+", ½ for each "+/-", and 0 for each "-") with zero being the lowest possible rating and six (Postharvest) or seven (Preplant) the highest. A low rating was not interpreted as a lack of support for the problem area but rather the limited impact the program had in the given area. Some low scores may have resulted from the limited data made available to the panel in the accomplishment report.

Overall, the panel was impressed by the breadth and depth of accomplishments under NP308. Based on the number of projects within this National Program and the investment of resources in the projects, it is clear that USDA-ARS regards this program as an important mission within the agency. The panel unanimously agreed that NP 308 should remain as a stand alone program. In fact, the committee was unanimous in its opinion that the program would benefit from less overlap with other non-methyl bromide related research. That is, methyl bromide alternative objectives were more likely to be met if the methyl bromide component of projects with mixed objectives were separated and conducted independent of the non-methyl bromide alternative components.

In a number of cases, it was evident that USDA-ARS scientists were leading the way in research on problem areas represented within NP308. In most cases, collaboration with other research scientists in both the public and private sector is a critical component of ARS program success. The agency is encouraged to continue its support of collaboration with non-USDA programs, as this has been a proven way to leverage resources and expand the expertise base of ARS. In addition, the panel was encouraged by the planning process that leads to action plans for each of the national programs. The involvement of the broad research community as well as of stakeholders from the agricultural community is critical to the long term success of ARS.

The panel prepared general comments on the overall review and on the Preplant and Postharvest components. Specific recommendations are highlighted under each problem area where appropriate. The two tables provide in a summary format an overall evaluation of the programs under review.