

## PMTP Newsletter – AZM Phase out

In 2007 EPA made a regulatory decision to phase out the use of azinphosmethyl (AZM, Guthion) in all agricultural crops (Figure 1). For nearly fifty years, AZM has been the primary tool used by Washington apple growers to control the key pest in apple, the codling moth. Although there were initial fears that replacement insecticides would not be registered and that there would not be effective controls available, this has not happened. Pest management programs designed to protect fruit from codling moth have become more complicated and more expensive, but Washington growers continue to produce quality, pest free fruit. *In 2011 and 2012, the maximum allowable use of AZM will be 1.5 pounds of active ingredient (AI) per acre, one application.* No use of AZM will be allowed after the summer of 2012.

### AZM Phase out Schedule

| Year(s)   | Pounds AI per acre | Number of applications |
|-----------|--------------------|------------------------|
| 2007      | 4 pounds           | 4 applications         |
| 2008-2009 | 3 pounds           | 3 applications         |
| 2010      | 2 pounds           | 2 applications         |
| 2011-2012 | 1.5 pounds         | 1 application          |

Figure 1. EPA phase out schedule for Azinphosmethyl (AZM, Guthion)

More than fifty new insecticides and miticides have been registered for use on tree fruit crops since the passage of the Food Quality Protection Act in 1996. Many of the insecticides have been classified as reduced risk, or OP alternatives. In general, the OP alternative insecticides that have been registered for the control of codling moth have lower efficacy, a narrower spectrum of activity, and are more expensive than the OP insecticides that they are replacing. Sprayer coverage and application timing are also more critical with these new products as residues must directly contact the egg or be consumed by the feeding larvae to be effective. The Washington State University has developed the Decision Aid System (DAS - <http://das.wsu.edu>) and education programs such as the Apple IPM Transition Project (AIPMTP - <http://pmtip.wsu.edu>) to facilitate the implementation of more complicated IPM programs.

USDA National Agricultural Statistics Service (NASS) survey results show that OP use in Washington apple declined by more than 50% between 2007 and 2009, from 2.4 average acre applications in 2007 to 1.1 in 2009. This change is reflected by an increase in the use of pheromone technologies (our best estimate is that 85% of the bearing apple acres in Washington were treated with codling moth pheromones in 2010) and an increase in confidence with OP alternative insecticides, which has led to a decrease in consultant recommendations for use of OP products (93% recommended OP products in 2007 compared to 83% in 2009 - AIPMTP survey). Though these changes have been influenced by the AZM phase out, better educated growers and consultants with better resources for making decisions have made the transition away from OP insecticides successful.