Food Quality Protection Act: An Organophosphate Update - February 2002

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As the six-year anniversary of the Food Quality Protection Act (FQPA) approaches, EPA continues to focus on the regulation of the organophosphate (OP) compounds. The protocols for tolerance reassessment mandated by the FQPA were previously not described, and the methodology by which they are ultimately evaluated will be used to review the other classes of compounds in the future. Therefore, EPA has proceeded cautiously, opened the procedure to public review, and provided for stakeholder input at each step of the six-phase review process.

This process allows for the development of risk-management recommendations by EPA and, when combined with the previously ongoing re-registration process, ultimately results in the publication of a Re-registration Eligibility Document (RED). The RED finalizes the regulatory process and outlines the conditions under which continued use of the product may occur.

In the case of the organophosphates, which must still undergo a cumulative risk assessment as a class of compounds (see related article in this issue of *Fruit Notes*), EPA has issued Interim Re-registration Documents (IRED). These documents may include risk reduction measures and other label changes that will take effect prior to the final RED, which will be released once the cumulative risks of the OP's have been considered fully. It is anticipated that EPA will conclude its review of the organophosphates sometime later this year.

All seven of the active ingredients most commonly used in commercial tree fruit production are currently in the final phase of the individual risk assessment process. The following is a summary of EPA's findings and actions as of February 18, 2002.

Azinphos methyl – Initial label amendments for azinphos methyl (Guthion) that effected tree fruit production were voluntarily put in place by the registrants prior to the 1999 growing season primarily in response to EPA's concerns regarding dietary risk to children. Further discussions among the registrants, EPA, and the stakeholder community directed at reducing the risk to agricultural workers and the environment have continued since the release of the revised risk assessment in the summer of 2000.

The results of these discussions were made available for public comment on November 28, 2001 in the form of an IRED. This document proposes the cancellation of 28 crop uses (including nectarines), a four-year phase out of seven crop uses (including peaches) and a 4-year, time-limited registration for eight crop uses (including apples, pears, and sweet cherries). Some highlights of the proposed label changes concerning **apple** production are as follows:

- limit of 3.5 lbs ai/acre per season east of the Mississippi, 4.0 lbs ai/acre west of the Mississippi;
- increase REI to 14 days for all activities;
- require enclosed cabs **or** maximum personal protective equipment (PPE) for applicators;
- require closed mixing systems **or** water soluble bags and closed transfer systems for mixing/ loading;
- add 25-foot buffer zones for permanent surface water;
- add spray drift language; and
- prohibit pick-your-own (PYO) usage **or** restrict application to early season **or** establish 30 day pre harvest interval (PHI) for PYO operations.

The public comment period for this document ended on January 28, 2002. Questions concerning which label amendments will ultimately be required, the timeframe

for implementing these changes, and the disposition of product already in the distribution system remain unanswered at this time. However, the registrant is optimistic that no label changes will take effect for the upcoming growing season.

Phosmet – EPA released its revised risk assessment for phosmet (Imidan) at a technical briefing in February 2000. This document indicated that dietary risk was not an issue for this compound and that exposure to handlers could be managed satisfactorily with increased PPE and engineering controls.

An IRED for phosmet was made public simultaneously with that of azinphos methyl (AZM) in the fall of 2001. Similar to AZM, EPA's present concerns center around risks to agricultural workers and ecological risks. Proposed agricultural use changes that affect tree-fruit producers fall into two categories: 1) continued registration with new labeling requirements for 33 crop uses (including sweet and tart cherries) and 2) a 5-year, time-limited registration for nine crop uses (including apples, apricots, nectarines, peaches, pears, and plum/prunes). Some highlights of the proposed label changes concerning apple production are as follows:

- increase REI to 3 days;
- require enclosed cabs **or** maximum PPE for applicators;
- require water soluble bags and closed transfer systems;
- add spray drift language; and
- prohibit application during bloom period.

The registrant has reached an agreement with EPA that allows for all product currently in the distribution system or in possession at the farm level to be used under the current label until all inventories have been depleted. All product sold by the registrant after June 30, 2002 will reflect the changes mandated by the IRED.

Diazinon - In December of 2000, EPA released its revised risk assessment for this active ingredient. EPA concluded this active ingredient posed significant risk to birdlife as currently labeled and was a common contaminant of surface water. Risk mitigation measures center largely on phasing out, over the next three years, most residential uses of products containing diazinon (Spectracide) whether applied for structural or lawn-care purposes.

Although agricultural uses contributed little in this regard, risk to agricultural workers who apply these products or harvest treated crops was of concern. When the IRED is made public, it is expected that EPA will proposed the cancellation of about 30% of the current agricultural uses and require "Restricted Use" classification for the remaining uses so that applications will be limited to trained, certified applicators. Discussions with the registrant and other stakeholders are ongoing.

Malathion – The revised risk assessment for malathion was presented at a technical briefing in November, 2000. Malathion is a lower priority for regulatory action since it is used on less than 10% of the nation's apple acreage. EPA's analysis suggested that dietary risk, drinking water risk, and ecological risks were of little or no concern. However, risks to mixers/loaders/applicators and risk to workers entering treated areas for post-application activities were cited. Although the IRED has yet to be posted, additional personal protective equipment (PPE) for handlers and longer restricted entry intervals (up to 6 days) are expected to be included.

Methyl parathion (Penncap-M) - EPA has previously announced acceptance of the registrant's voluntary cancellation of many of the significant food crop uses for this material including apples, peaches, pears, nectarines, cherries, and plums in order to address the Agency's concern of dietary risk to children.

Chlorpyrifos (Lorsban) – EPA severely restricted the use of this material on apples, tomatoes, and grapes shortly after the release of the revised risk assessment in August of 2000, again, due to dietary-risk issues. Post-bloom use on apples has been prohibited since December 31, 2000. The IRED was published in the Federal Register on November 14, 2001 for which the public comment period ended in mid January.

The first step of the review process mandated by the FQPA is drawing to a close for the organphosphate compounds. EPA will soon conclude the evaluation of these active ingredients on an individual basis. This initial evaluation contains a risk assessment that considers all potential routes of exposure including dietary, drinking water, residential, and occupational means.

The second phase, cumulative assessment of the

risk posed by OPs as a class of compounds, has already begun. EPA and USDA convened an advisory panel, the Committee to Advise on Reassessment and Transition (CARAT), to assist in this process in February 2000. Dr. Robin Spitko of New England Fruit Consultants is a member of this committee and has been monitoring the proceedings for the tree-fruit industry in the Northeast.

Further information can be found at http://www.epa.gov/pesticides.

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