

Appendix A Mancozeb Verification Memo



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460**

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

MEMORANDUM

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SUBJECT: Verification Memorandum for Mancozeb for SF Bay Species

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This memorandum serves to provide additional information on the use pattern of mancozeb not captured in the LUIS process. The Pesticide Re-evaluation Division (PRD) is writing this memo to provide information regarding changes to mancozeb use that occurred as a result of the reregistration process. The Registration Division (RD) has provided information regarding changes to the chemical use that occurred after the date of the LUIS label extraction.

The LUIS spreadsheet for mancozeb reflects all products registered as of November 2, 2010. Thus, it reflects the new uses added to the label in 2010: cucurbits, ginseng, mango, and tropical fruit. It also reflects a time-limited FIFRA Section 18 registration for emergency use on California walnuts, which expires on December 31, 2013. It does not reflect the recently approved use of mancozeb on almonds, cabbage, lettuce, peppers, and broccoli.

Registration and Reregistration Verification

Date and Scope of the RED

- The Mancozeb Reregistration Eligibility Decision (RED) was completed in September 2005.
- The RED considered aggregate exposure to ethylene thiourea, the major metabolite/degradate of mancozeb, maneb, and metiram. No other metabolites or degradates were considered in the RED.
- Mancozeb does not share a common mechanism of action with any other pesticide chemicals.

Required Through the RED Process

- The following mancozeb uses were determined to be ineligible for reregistration: athletic fields, pachysandra, foliar application to cotton, pineapple seed piece treatment, and residential lawns/turf. These uses were canceled by the mancozeb technical registrants (Dow, DuPont, and United Phosphorus) through the reregistration process. These uses are being removed from remaining end-use product labels during product reregistration, which is nearly complete.
- Mitigation was required through the reregistration process and has been implemented on nearly all product labels. Labels of 10 mancozeb products currently undergoing reregistration do not yet reflect this mitigation (see **Post-RED Registration Division Actions** below). Specific mitigation measures, including rate reductions and use restrictions, which impact the ecological risk assessment, are listed in the bullets that follow. Mitigation measures required to address occupational risks only are not listed in this memo. However, the occupational risk mitigation (i.e., personal protective equipment and restricted entry intervals for agricultural workers re-entering treated fields) is listed in Section IV of the Mancozeb RED. (See docket EPA-HQ-OPP-2005-0176.)
- The following rate reductions were required in the mancozeb RED:
 - Turf – maximum rate reduced from 19 to 17.4 pounds active ingredient per acre; and
 - Papaya – maximum rate reduced from 4 to 2 pounds active ingredient per acre.
- The following use restrictions were required in the mancozeb RED:

Turf

- Extend application interval from every 7 to 10 days to 10 to 14 days.
- No more than 4 applications can be made per year.
- Delete sod farm use from all wettable powder (WP) product labels.
- Prohibit aerial application of liquid formulations to golf courses or sod farms.
- Prohibit application of liquid formulations via chemigation to golf courses.

Cut Flowers/Greenhouse-grown Ornamentals

- Limit number of applications to 20 per year.

Sweet Corn

- Prohibit use in home gardens.

Post-RED Registration Division Actions

- On July 16, 2010, RD approved a FIFRA Section 18 registration for mancozeb on walnuts in California (EPA Reg. Nos. 352-704 and 352-706). EPA also established a time-limited tolerance for walnuts with an expiration date of December 31, 2013.
- On August 18, 2010, OPP established new tolerances for use of mancozeb in/on cucurbits, ginseng, mango, and tropical fruits (sapodilla, mamey sapote, white sapote, star apple, and sugar apple) (75 FR 50902).
- The following new food uses have been approved: almonds, cabbage, lettuce, peppers, and broccoli. RD expects to publish the rule establishing tolerances for these uses in April 2011.
- No application rates have changed since implementation of the RED.
- Product reregistration for mancozeb is nearly complete. The following products are currently undergoing product reregistration in the Registration Division: EPA Reg. Nos. 352-690, 400-558, 829-286, 1001-77, 2217-426, 62719-388, 62719-418, 67690-35, 70506-185, and 10163-6414.