



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

OFFICE OF PREVENTION,
PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

DATE: July 26, 2007

SUBJECT: Outdoor Nursery Pesticide Root Zone Model (PRZM) Scenarios for Use in Surface Water Exposure Assessments.

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Mark Corbin 8-8-07

TO: Water Quality Technical Team (WQTT)
Environmental Fate and Effects Division (7507P)

THRU: Greg Orrick, WQTT Chair
R. David Jones, WQTT Chair
Elizabeth Behl, WQTT Management Representative

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The Environmental Fate and Effects Division's (EFED) Water Quality Technical Team (WQTT) is responsible for maintaining, upgrading, and developing modeling scenarios for use in Pesticide Root Zone Model (PRZM) in order to conduct exposure assessments for both ecological effects risk assessments and for drinking water assessments relied on by the Health Effects Division (HED) of the Office of Pesticide Programs (OPP). This memorandum transmits a suite of six outdoor nursery scenarios and their six associated metadata files that document the individual scenario inputs and sources of information. In addition, a copy of the final report documenting the rationale and process for scenario development is transmitted. Both the metadata files and the final summary report will be maintained on the EFED share drive for access (currently at: F:\USER\SHARE\Models\Aquatic Exposure Models\Current Models (approved for Risk Assessments)\PRZMEXAMS (ver. 3.12 and 2.98.04)\Scenario Metadata\Standard Metadata\Nursery Metadata).

The objective in developing these scenarios was to provide a national cross-section of major areas of outdoor nursery use. EPA completed an initial spatial analysis of outdoor nursery operations that is presented in **Figure 1**. Using this information, the contractor was able to identify the individual locations within each major region deemed representative of outdoor nursery operations. None of these scenarios were developed with an objective of being a

nationally representative scenario but was developed to be a high-end exposure location for each region. Used together in an exposure assessment, it is believed that these scenarios provide a reasonable estimate of high-end exposure scenarios for outdoor nurseries across the major use sites of the nation as a whole. Thus, when concerned about the potential for surface water exposure from an outdoor nursery use at the national scale, all scenarios should be utilized in the assessment process. Conversely, any assessment focused on a particular geographic region can rely on one or more of these scenarios as needed. **Table 1** presents a summary of the new scenarios and the regions represented by each.

Table 1. Summary of Nursery Scenarios.			
Scenario	Location Developed From	Area Represented	Weather Station
CA nursery	San Diego County, California	Southern California/Arizona	San Diego, CA (W23188)
FL nursery	Miami-Dade County, Florida	South Florida	Miami, FL (W12839)
MI nursery	Ottawa County, Michigan	Northeast Illinois/Southern Michigan	Muskegon, MI (W14840)
NJ nursery	Cumberland County, New Jersey	Eastern Pennsylvania/New Jersey	Atlantic City, NJ (W93730)
OR nursery	Clackamas County, Oregon	Oregon/Washington	Portland, OR (W24229)
TN nursery	Warren County, Tennessee	Eastern Tennessee/Western North Carolina	Chattanooga, TN (W13882)

More detail on the rationale behind individual scenario location and parameterization may be found in the attached summary report and metadata files.

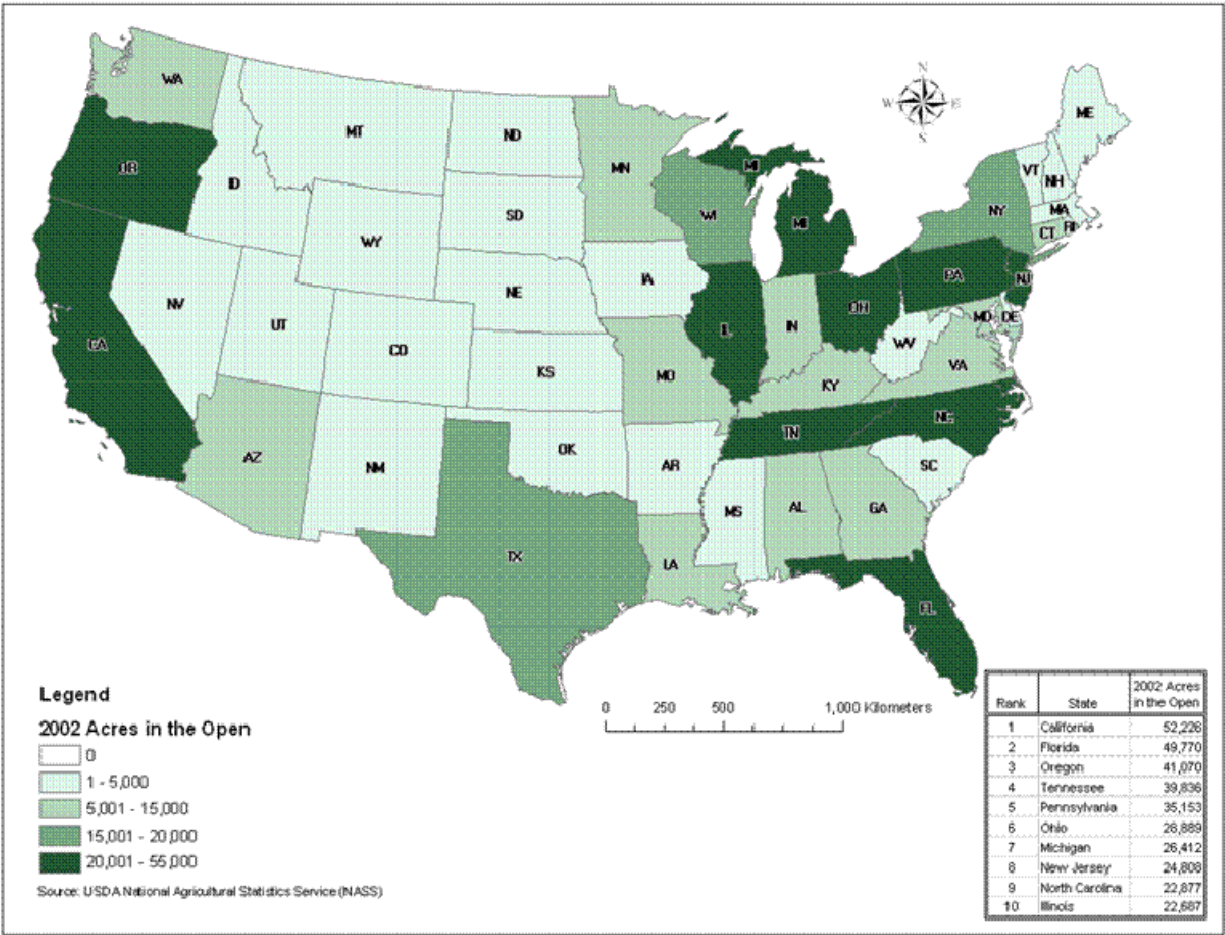


Figure 1. Summary of Outdoor Nursery Operations in 2002 by Area per State.