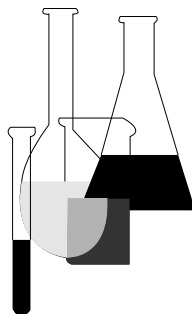




# Microbial Pesticide Test Guidelines

## OPPTS 885.5200

### Expression in a Terrestrial Environment



## INTRODUCTION

This guideline is one of a series of test guidelines that have been developed by the Office of Prevention, Pesticides and Toxic Substances, United States Environmental Protection Agency for use in the testing of pesticides and toxic substances, and the development of test data that must be submitted to the Agency for review under Federal regulations.

The Office of Prevention, Pesticides and Toxic Substances (OPPTS) has developed this guideline through a process of harmonization that blended the testing guidance and requirements that existed in the Office of Pollution Prevention and Toxics (OPPT) and appeared in Title 40, Chapter I, Subchapter R of the Code of Federal Regulations (CFR), the Office of Pesticide Programs (OPP) which appeared in publications of the National Technical Information Service (NTIS) and the guidelines published by the Organization for Economic Cooperation and Development (OECD).

The purpose of harmonizing these guidelines into a single set of OPPTS guidelines is to minimize variations among the testing procedures that must be performed to meet the data requirements of the U. S. Environmental Protection Agency under the Toxic Substances Control Act (15 U.S.C. 2601) and the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 136, *et seq.*).

**Final Guideline Release:** This guideline is available from the U.S. Government Printing Office, Washington, DC 20402 on *The Federal Bulletin Board*. By modem dial 202-512-1387, telnet and ftp: fedbbs.access.gpo.gov (IP 162.140.64.19), internet: <http://fedbbs.access.gpo.gov>, or call 202-512-0132 for disks or paper copies. This guideline is also available electronically in ASCII and PDF (portable document format) from the EPA Public Access Gopher ([gopher.epa.gov](http://gopher.epa.gov)) under the heading "Environmental Test Methods and Guidelines."

**OPPTS 885.5200 Expression in a terrestrial environment.**

(a) **Scope**—(1) **Applicability.** This guideline is intended to meet testing requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 U.S.C. 136, *et seq.*).

(2) **Background.** The source material used in developing this harmonized OPPTS test guideline is OPP guideline 155A–10.

(b) **Test standards.** This guideline is to be used with OPPTS 885.5000. (1) Tests shall be conducted in a greenhouse environment to determine whether the microbial pest control agent (MPCA) is able to survive, persist, and replicate in a terrestrial environment consisting of soil and vegetation representative of the proposed use site. The following parameters should be varied to determine their effect on the survival and growth of the MPCA population:

- (i) Temperature.
- (ii) Humidity.
- (iii) Precipitation (amount, frequency, pH).
- (iv) Sunlight.
- (v) pH (soil and foliar surfaces).
- (vi) Nutrients (soil, vegetation).

(2) The values selected for each parameter should be selected to approximate the conditions expected at the intended use site.

(3) Laboratory studies designed to determine the microbial agent's growth requirements (e.g., temperature, humidity, pH, sunlight and nutrients) may supplement the greenhouse study described in paragraph (d)(1)(i) of OPPTS 885.5000. Laboratory studies may demonstrate that the MPCA will be unable to survive and the Agency will consider studies on a case-by-case basis to meet the intent of testing in lieu of the greenhouse study.

(c) **Test substance.** A typical end-use product or the technical grade of the active ingredient shall be tested.

(d) **Test duration.** Data to establish a population decline curve shall be collected at intervals until two half-life determinations have been made or until data establish that the microbial agent population is able to maintain itself in the terrestrial environment at or above the level present immediately after test initiation.

(e) **Reporting and evaluation of data.** The reporting and evaluation provisions are the same as those set forth in OPPTS 885.5000.

(f) **Tier progression.** If results of this study indicate that the MPCA is able to persist in the terrestrial environment such that susceptible nontarget organisms tested in Tier I are likely to be exposed, then the appropriate testing in Tier III (OPPTS 885.4550, 885.4600, or 885.4850) is required as specified in 40 CFR 158.740.

(g) **References.** The following references contain information for developing acceptable protocols:

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