MICHIGAN DEPARTMENT OF AGRICULTURE
PESTICIDE AND PLANT PEST MANAGEMENT DIVISION
DACTHAL CANCELLATION ORDER

The herbicide DCPA, trade name Dacthal, was first registered for sale in Michigan in 1959, and has been renewed annually since that time with few exceptions. The pre-emergent herbicide has been registered using many different trade names to control annual grasses and certain annual broadleaf weed species in a wide range of vegetable, ornamental, turf and garden sites. Currently there are only three products (listed below) that are registered for sale and distribution in Michigan and are therefore affected by this order.

On July 17, 2002, the Director of the Michigan Department of Agriculture registered Dacthal W-75 Herbicide, active ingredient DCPA, EPA registration number 5481-490, for sale and distribution in the state of Michigan according to MCL 824.8307a.

On July 23, 2002, the Director of the Michigan Department of Agriculture registered Acme Garden Weed Preventer Granules, active ingredient Dimethyl tetrachloroterephthalate (DCPA), EPA registration number 33955-474, for sale and distribution in the state of Michigan according to MCL 824.8307a.

On August 2, 2002, the Director of the Michigan Department of Agriculture registered Dacthal Flowable Herbicide, active ingredient DCPA, EPA registration number 5481-487, for sale and distribution in the state of Michigan according to MCL 824.8307a.

The Director of the Michigan Department of Agriculture, by the authority of Section 8309(d) of Act 451 of 1994, Part 83, Pesticide Control hereby cancels the state registration of Dacthal W-75 Herbicide, Acme Garden Weed Preventer Granules, Dacthal Flowable Herbicide and any pesticide containing the active ingredient DCPA based on the following information.

1. DEFINITIONS.

The following terms shall be construed to mean:

(A) "Contaminant" means any pesticide originated chemical, radionuclide, ion, synthetic organic compound, microorganism, or waste that does not occur naturally in groundwater, or that naturally occurs at a lower concentration than detected.

(B) "Contamination" means the direct or indirect introduction into groundwater of any contaminant caused in whole or in part by human activity.

(C) "Director" means the director of the department of agriculture or his or her authorized representative.

(D) "Distribute" means to offer for sale, hold for sale, sell, barter, ship, or deliver pesticides in this state.

(E) "Environment" includes water, air, land, and all plants and human beings and other animals living therein, and the interrelationships that exist among them.

(F) "Groundwater" means underground water within the zone of saturation.

(G) "Person" means an individual, partnership, corporation, association, governmental entity, or other legal entity.

(H) "Pest" means an insect, rodent, nematode, fungus, weed, and other forms of terrestrial or aquatic plant or animal life or virus, bacteria, or other microorganism, or any other organism that the director declares to be a pest under section 8322, except viruses, fungi, bacteria, nematodes, or other microorganisms in or on living animals.

(I) "Pesticide" means a substance or mixture of substances intended for preventing, destroying, repelling, or mitigating pests or intended for use as a plant regulator, defoliant or desiccant.

(J) "Unreasonable adverse effect on the environment" means any unreasonable risk to human beings or the environment, taking into account the economic, social, and environmental costs and benefits of the use of a pesticide.

(K) "Violates this part" or Violation of this part" means a violation of this part (Act 451, Part 83), a rule promulgated under this part, or an order issued under this part.

2. FINDINGS

(A) In September of 2001, the Michigan Department of Agriculture (MDA) initiated an investigation of groundwater contamination in Coloma Township Michigan, based on information that a local elementary school well was contaminated with the di-acid metabolite of the pesticide DCPA. Historically, herbicides containing DCPA were used in this area on both agricultural and residential sites.

(B) The MDEQ Drinking Water Lab and the MDA Pesticide and Environment Lab jointly performed the sample analysis using methods specific to the DCPA di-acid metabolite.

(C) Since September of 2001, MDA in cooperation with the Michigan Department of Environmental Quality (MDEQ) has conducted well water testing in 875 wells in a portion of Coloma Township located north of Coloma, Michigan, detecting DCPA metabolites in 265 of the wells sampled. Most of the wells are domestic supplies, but some serve small businesses, the elementary school and the township.

(D) Of the 265 wells with positive detection, 43 were at levels above the U.S. Environmental Protection Agency (EPA) health advisory level of 70 micrograms/liter or parts-per-billion for the parent compound DCPA.

(E) Until such time as either EPA or MDEQ revise drinking water advisories to assign a separate value for the DCPA di-acid metabolite, the State of Michigan will continue to use the value for the parent compound, DCPA.

(F) MDA's Pesticide and Plant Pest Management Division (PPPMD) conducted a pesticide misuse investigation (UI 02-50-04) to determine if misuse of DCPA was the cause of the contamination. No evidence of pesticide misuse was discovered, suggesting that legal use of DCPA resulted in groundwater contamination.

(G) Nine additional groundwater sample sites in Michigan have confirmed detection of the DCPA di-acid metabolite. These sites are located in the municipalities of Homer, Three Rivers, Wixom, East Lansing, Portage, Jackson, Summit Township, Ionia and Waterford Township. Historically, herbicides containing DCPA were used in these areas on both agricultural and residential sites.

(H) Four of ten domestic wells sampled in Homer, Michigan tested positive for the DCPA di-acid metabolite.

(I) Thirty-one of fifty-five wells sampled in Three Rivers, Michigan tested positive for the DCPA di-acid metabolite. Three of the positive samples exceed the health advisory level of 70 micrograms/liter or parts-per-billion for the parent compound DCPA.

(J) Three of five wells sampled in Wixom, Michigan tested positive for the DCPA di-acid metabolite, including one serving a daycare center.

(K) MDA laboratory analysis of groundwater samples collected from wells in Coloma, Michigan on December 9, 2002 indicate that DCPA is the only feasible source of the DCPA di-acid metabolite, and by extension includes all other detection sites in Michigan.

3. CONCLUSION AND ORDER

Since the state began implementing the EPA required Unregulated Contaminant Monitoring Regulation in 2001, ten locations in Michigan have returned positive detection results for the DCPA di-acid metabolite. Additional state groundwater monitoring at these locations has detected DCPA di-acid metabolites in hundreds of wells. These wells occur in a wide range of soil types, in locations where historical use of herbicides containing DCPA occurred.

MDA expects that additional detection will occur in Michigan as more water supplies are tested for the DCPA di-acid metabolite. Since detection occurs over a wide range of soil types, which are not limited to specific geographic regions of the state, MDA does not believe that limiting the use of DCPA containing herbicides either by soil type or geographic distribution will prevent further contamination of Michigan groundwater.

Further, MDA does not believe that restricting the use of herbicides containing DCPA for use by certified applicators will prevent further contamination of Michigan groundwater. Common use practices are apparently responsible for the resulting contamination and no

scientific evidence is available to suggest modification of use practices or application sites will provide adequate protection of groundwater resources.

Therefore, MDA believes that substantial scientific evidence exists that the pesticide DCPA is likely to cause an unreasonable adverse effect on the environment including contamination of groundwater at sites throughout the entire State of Michigan.

Based on the extent of groundwater contamination in Michigan, the director hereby cancels the state registration of pesticides containing the active ingredient DCPA based on the determination that use of DCPA has caused and is likely to continue to cause an unreasonable effect on the environment. This action is taken under the authority granted in Act 451, Part 83, Section 8309 (d), which states:

"Section 8309. The director may refuse to register or may cancel or suspend registration of a pesticide if any of the following circumstances exist:

(d) Based on substantial scientific evidence, the director determines that the use of the pesticide is likely to cause an unreasonable adverse effect on the environment, which cannot be controlled by designating the pesticide as a restricted use pesticide, by limiting the uses for which a pesticide may be used or registered, or by other changes to the registration or pesticide label."

4. VIOLATIONS

(A) It is a violation for any pesticide containing the active ingredient DCPA to be used, sold, exposed, or offered for sale in the State of Michigan.

(B) A person who violates this order is subject to the full authority of Act 451, Part 83, Pesticide Control, as amended.

The effective date of this order is April 21, 2003.

By: Dan Wyant
Dan Wyant, Director
Michigan Department of Agriculture

Date: 4-21-03