

UNIVERSITY OF HAWAII AT MĀNOA

College of Tropical Agriculture and Human Resources

Department of Plant and Environmental Protection Sciences

December 13, 2006

Lance Wormell
Special Review and Reregistration Division (7508P)
Office of Pesticide Programs
Environmental Protection Agency
1200 Pennsylvania Ave., NW.
Washington, DC 20460-0001;

Subject: Docket ID Number **EPA-HQ-OPP-2006-0201**
Comments in Response to the **Organic Arsenical Herbicides (MSMA, DSMA, CAMA, and Cacodylic Acid), Reregistration Eligibility Decision**

The following comments are being submitted in response to the August 9, 2006 and October 27, 2006 *Federal Register* notices regarding EPA's Reregistration Eligibility Decision (RED) for the organical arsenical herbicides. These comments are being submitted on behalf of the Western Integrated Pest Management Center and provide input on the use of MSMA on turfgrass sites in Hawai'i.

In Hawai'i, MSMA is an important resistance management tool for weed control in turfgrass sites.

There have been recent advances in chemical weed control tools that help to manage the weed spectrum in turf that MSMA is used for. Specifically, the sulfonylureas are a class of herbicides with a highly selective weed control spectrum that includes problem weeds like purple nutsedge (*Cyperus rotundus*) and goosegrass (*Eleusine indica*) in both warm and cool season turf. Although these new tools are highly effective, they work via a single metabolic pathway. Thus, target weeds are highly susceptible to the development of resistance. Formasulfuron resistance in goosegrass has already been documented in Hawai'i and resistance is likely to occur in other weeds for which this class (sulfonylurea) of herbicides is the exclusive control.

Another potential alternative for MSMA are the imidazolinone herbicides. These have a narrow spectrum of control and certain weeds have been shown to develop resistance over a relatively short period of time

Pre-emergence herbicides do not provide complete control, so there will always be a need for post-emergence products such as MSMA.

Therefore, MSMA is needed for resistance management in Hawaiian turf grass. This chemical is an important part of extending the effective life span currently available herbicides. The loss of MSMA will contribute to the build up of herbicide resistant weeds due to the loss of an important resistance management tool.

In Hawai‘i, the life cycles of annual weeds are essentially the same as perennial weeds. These “annual weeds” are much more difficult to control in Hawai‘i than in temperate climates.

Information and comments have been provided by staff of the Cooperative Extension Service of the College of Tropical Agriculture and Human Resources, representatives of Hawai‘i’s turf management community, including **golf course** superintendents and the **National Memorial Cemetery of the Pacific** and a chemical industry representative. Letters from the Hawaii Golf Course Superintendents’ Association and the foreman of the National Memorial Cemetery of the Pacific (NMCP) are attached, below.

Comments compiled and submitted by:



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HGCSA
HAWAII GOLF COURSE
SUPERINTENDENTS' ASSOCIATION



September 25, 2006

B. Russell Dooge, CGCS
President
HGCSA
P.O. Box 894719
Mililani, HI 96789

Ms. Cathy Tarutani
Department of Plant & Environmental Protection Sciences
College of Tropical Agriculture & Human Resources
University of Hawaii at Manoa
3050 Maile Way, Gilmore 310
Honolulu, HI 96822

Dear Ms. Tarutani,

The Hawaii Golf Course Superintendents Association (HGCSA) is the professional organization which represents the superintendents of 82 golf courses in Hawaii. As President of this association, I feel it is my duty to voice the concerns of the membership over the EPA's recent decision not to allow re-registration of organic arsenical herbicides.

Organic arsenical herbicides represent the primary form of chemical weed control for golf courses in our state. Here in Hawaii, we have a 12-month growing season, whereby commonly considered annual weeds such as goosegrass and crabgrass, have become perennial weeds because we do not experience the frost and extremely low temperatures that would otherwise cause these weeds to die off on a seasonal basis. As a result, we are not able to effectively control these weeds through pre-emergent weed control practices only, because the parent plants are able to survive through successive generations. Post-emergent control is absolutely necessary to keeping these weeds in check, and few chemicals are able to provide the kind of results that organic arsenicals do, at a reasonable cost to the user.

The golf course industry is vital to our visitors' industry in Hawaii. In Hawaii, we have to be competitive on the world market in order to be able to attract travelers to choose our islands as their vacation destination. Golf has become as important as the sand-laden beaches and warm, tropical weather in attracting these visitors to Hawaii, and without an effective weed control program which includes organic arsenicals, we would not be able compete with some of the other tropical destinations in locations such as Southeast Asia, the South Pacific, and some South American countries. Simply put, pulling organic arsenicals from the market could very well spell disaster for Hawaii's most important economic industry.

The HGCSA is appealing to request that organic arsenicals be available, at least until a viable alternative can be found for suppression of these weeds. Whether it is through an extension of the current registration, or the granting of a special local needs label (SLN), it is imperative that these chemicals continue to be available to help Hawaii superintendents' combat these invasive weeds in high-quality turf. We would greatly appreciate your help in conveying our sentiments to the EPA, in the hope of coming up with a viable, near-term solution to our extremely important problem.

Sincerely,

B. Russell Dooge, CGCS
President
HGCSA

Subject: Use of MSMA in our turf weed control program

Our use of MSMA herbicide is an important factor to our turf weed control program. Used at labeled rates it provides us the ability to achieve success in our battle to achieve our goal, and the standard of the National Cemetery Systems goal of a 90% weed free turf area.

I have found that two (2) broadcast applications of MSMA per acre at the labeled rate in heavily weed infested turf areas has given us great control of targeted weeds with little or no stress or damage to favorable turf. The first application of MSMA is made in combination with other herbicides such as Manage or Monument 75WG. This combination of herbicides has helped us in controlling the nutweed and kyllinga populations in the turf, and the second application of MSMA is done as a follow-up at the labeled rate and interval, which is important for a good turf weed control program. Other follow-up applications can be done as a spot treatment at labeled rates.

MSMA has been a key in our fight to provide our costumers a beautiful environment to visit. We take every precaution possible to ensure that the public is not endangered, and they appreciate the results.

MSMA used in accordance with label directions can be safe for our visitors as well as the applicators.

As an applicator and loader of MSMA products, I've taken a blood test every year and no negative results of MSMA poisoning has been reported.

Comments of the gardening staff of the National Memorial Cemetery of the Pacific were submitted by:

Larry Thornton
NMCP, Foreman