

January 18, 2006

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Dear Jackie,

I received your phone message just about the time I was going to send a list of questions to you. We had discovered the exception for bananas and plantains in the ethoprop IRED and were going to inquire about that. However, this was not the only question that arose as we were attempting to get the answers to your email questions. So, I quickly modified the response and below are the questions that remain.

In our attempts to determine the exact accommodations growers would need to make, unfortunately, we came up with more questions. We are referring these questions to you for clarification.

We have been referring to what we believe are the current product labels and the Ethoprop IRED and Fact Sheets. They are attached so that you can see if we are working from the correct resources.

In Table 14 (page 82), there is the following language for the EC formulation:

“Handlers engaged in those activities for which use of an engineering control is not possible, such as cleaning up a spill or cleaning or repairing contaminated equipment, must wear:

- coveralls over long-sleeve shirt and long pants,
- chemical-resistant gloves,
- chemical-resistant footwear plus socks,
- chemical-resistant apron if exposed to the concentrate,
- chemical-resistant headgear for overhead exposure, and
- a non-powered air-purifying respirator equipped with an N-*, R-, or P-series filter.”

We normally interpret the phrase “such as” to be followed by examples, but the list is generally not a complete list of “activities for which use of an engineering control is not possible”.

At the time of the publication of the IRED, apparently EPA had insufficient data to determine their level of concern for this application scenario (Table 11, page 33). Its inclusion in Table 11: “Occupational Risks for Those Use Scenarios for which Engineering Controls are Not Feasible, and the Maximum Worker Protection is Only

Provided with PPE” would imply that this is one of “those activities for which use of an engineering control is not possible”.

Question #1:

According to your message, EPA will be reregistering the EC formulation with no application using hand-held equipment allowed.

Has EPA determined that the EC formulation will solely require an enclosed cab for application or could it be interpreted that certain use situations exist (i.e., in bananas and plantains) where “no engineering controls are possible” for the EC formulation?

This brings us to an area of concern involving the specifics of the “enclosed cab equipment” and PPE.

In the “Engineering Controls” Sections for both the granular and EC formulations of Table 14, there is the stipulation that applicators “*either* wear the type of respirator specified in the PPE section of this labeling *or* use an enclosed cab that is declared in writing by the manufacturer or by a government agency to provide at least as much respiratory protection as the type of respirator specified in the PPE section of this labeling”.

The availability of enclosed cabs so “declared” is in question. One vendor (Western Farm Service) was queried and they indicated none of their units have what they call “certified” air filtration systems.

So, it would seem that, strictly speaking, the answer to the first part of your Question 1 would be, “No”, closed cab (engineering controls) systems cannot be accommodated for either the granular or EC formulations. This is because of the lack of availability of the enclosed cabs with the proper “declarations”.

Some confusion arose when we looked at the Worker Protection Standard “requirements” for the enclosed cabs. 40 CFR 170.240(d)(5) says, “*Enclosed cabs*. If handling tasks are performed from inside a cab that has a nonporous barrier which totally surrounds the occupants of the cab and prevents contact with pesticides outside of the cab, *exceptions* to personal protective equipment specified on the product labeling for that handling activity are permitted as provided in paragraphs (d)(5)(i) through (iv) of this section.” (Emphasis added.)

It seems that the WPS treats enclosed cabs as *alternatives* to PPE. The Mocap label amendments imply that engineering controls are primary, and handlers might be “engaged in those activities for which use of an engineering control is not possible”. Nevertheless, we assumed that the respirators specified in these sections were the ones which would be used in an enclosed cab without the proper ventilation system.

It would be possible for Hawaii’s banana growers to use the appropriate respirators.

Question #2

But, how available are cabs that have “a nonporous barrier which totally surrounds the occupants of the cab and prevents contact with pesticides outside of the cab”? No declarations are apparently required here, but Western Farm Service indicated that their clients use the full PPE attire with or without a cab. This implies that that the cabs are providing little or no protection.

Finally, in Table 14 (page 90), there is the description for “Other Application Restrictions”. “For the EC product: “For applications only by motorized ground boom equipment or sprinkler systems including: center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system. Do not apply with liquid backpack sprayers, low-pressure handwand liquid equipment, sprinkler cans or hand-held measuring containers, or by hand-dipping of citrus seedlings.”

But, in Appendix A, “Table of Use Patterns Eligible for Reregistration for Ethoprop” (page 93), the Use Limitation for bananas/plantains is “Treat only the soil within a radius of 30 inches (3/4 meters) of plant stem.”

Question #3

Is this how Mocap is to be applied from a closed cab system? Or with some other equipment that is not hand-held?

The reality of the current situation is that according to sales records, Mocap has not been used (purchased) by Hawaii banana growers for many years. And, the growers who do not want to lose it as an alternative represent a smaller, but not insignificant, percentage of the industry. The concern is canceling a registered product that they could use in the event of a serious nematode or weevil problem. What are the chances based on the historical use of Mocap in bananas? It doesn't seem very likely that an outbreak or problem will arise; but on the other hand, could it be that the problem is just waiting to happen because it's been latent for so long, and it's just waiting for the optimum environmental conditions? This is an especially difficult situation because of the unknowns and infrequent (rare) use of Mocap in banana. However, answers to the engineering control and WPS requirements may help to guide the decision one way or the other based on what is feasible for banana growers who want to keep it registered.

Another consideration is the Banana Bunchy Top virus, which is very prevalent and can be devastating. Neither the disease nor its vector has adequate control tactics available. There have been conversations that the banana growers may have to radically change their cultural practices in order to remain in production. Might these changes expose them to greater vulnerability to nematodes? Might these changes make Mocap a more attractive alternative? But, we again return to the issues of engineering controls and WPS requirements, for without a clearer understanding, it is difficult to give into cancellation.

At this point, without further communication with growers, I would be reluctant to state that their *primary* concern is the granular formulation. The first question posed to them

was whether they could do without the EC formulation. The response from the growers was that they could do without the EC product if the granular were still available. They have not yet been asked whether they prefer one formulation over another and which formulation that would be, and under what circumstances.

Please contact us if you have further questions. We would also appreciate notification of any decisions regarding ethoprop.

Sincerely,

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