

US EPA ARCHIVE DOCUMENT

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RECORD NO.

SHAUGHNESSEY NO.

REVIEW NO.

EEB REVIEW

DATE: IN 11-17-87 OUT 12-16-87

FILE OR REG. NO 239-2452

PETITION OR EXP. NO. _____

DATE OF SUBMISSION 10-1-87

DATE RECEIVED BY HED 11-16-87

RD REQUESTED COMPLETION DATE 12-16-87

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RD ACTION CODE/TYPE OF REVIEW 352

TYPE PRODUCT(S) : I, D, H, F, N, R, S Insecticide

DATA ACCESSION NO(S). _____

PRODUCT MANAGER NO. W. Miller (16)

PRODUCT NAME(S) Methamidophos

COMPANY NAME Chevron Chemical Co.

SUBMISSION PURPOSE Protocol Review- Celery (Florida)

SHAUGHNESSEY NO.	CHEMICAL, & FORMULATION	% A.I.
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

CHEMICAL NAME: METHAMIDOPHOS

100.0 Purpose of Submission

The Registrant has submitted a request not to conduct a residue monitoring study and/or full scale avian field test in celery and has listed the following concerns/problems as rational for the data requirement exemption:

1. Integrated pest management program.

The Registrant claims that, because celery is an intensely managed crop, and treated with a wide variety of crop protection chemicals such as; fertilizers, herbicides, fungicides and insecticides, it would be "... impossible to ascribe effects to a single chemical in an integrated multi-use pesticide program", and, on this basis, "... a meaningful full scale avian field study with Monitor in celery is not appropriate."

EEB RESPONSE

The fact that a crop is intensely managed is insufficient reason for not having to comply with ecological effects data requirements (i.e., a full scale field study in this case). If this were a valid argument, it would preclude the Agency from requesting environmental effects data on such intensely managed crops as; corn, tomatoes, cotton, citrus and orchards, which also require numerous applications of crop protection chemicals under normal agricultural practices. In fact, because there is the possibility that such multi-spray programs could enhance the toxicity of a chemical or combination of chemicals (i.e., the added toxicity of one chemical may enhance the toxicity of another), an argument could be made for conducting field studies on such crops even when estimated exposure levels are below concern levels for any one chemical.

2. Crop Purchase Potential.

The Registrant claims that ... " Growers are not willing to restrict pesticide usage exclusively to Monitor in celery production without some strong financial agreements...." and that ... " Crop purchase agreements with prospective growers at this rate is financially out of the question."

EEB RESPONSE

Other than the fact that the Registrant's concern could be applied to a great many other crops, it is not within the purview of the EEB to comment on this issue.

3. Analytical/Residue Considerations

The Registrant contends that, .." analytical interference from other pesticides could be a serious problem and present undesirable risks in either a residue monitoring study or a full scale avian field study."

EEB RESPONSE

Again, the EEB does not view this as a unique situation. In fact, this argument can be made for any use pattern where more than one chemical is used in a control program. The EEB believes that it is the Registrant's responsibility, if it wants to register a product for a particular use site, to develop the analytical capability to detect environmental residues when used under standard agricultural conditions, regardless of any "interference" from other chemicals.

4. Pesticide use on Adjacent crops

The Registrant claims that, because celery is grown adjacent to other intensely managed crops, birds visiting celery fields would be exposed to pesticides applied to adjacent fields and, as such, it would be difficult to assess hazard from the effects of a single chemical.

EEB RESPONSE

The EEB agrees that off-site impacts can occur and influence and/or "mask" the effects of the chemical being studied. However, the EEB points out that this is a concern for any crop being studied- not just celery. The EEB notes that this issue is addressed when the field study protocol is submitted for review(i.e., the EEB recommends that the treated fields be spaced far enough apart to preclude off-site contamination as well as cross-over impacts. The use of control plots is another way to segregate the impacts associated with the test chemical.

5. Sporadic Visitation By Birds

The Registrant argues that celery fields typically have a "low frequency" of bird visitation during the growing season and that most avian visitation (usage) occurs when the fields are fallow and after Monitor is no longer used.

EEB RESPONSE

According to EEB files, avian use of celery fields is higher than the Registrant believes. Dr. Bill Genung, at the University of Florida, compiled a list of birds found in celery fields in Belle Glade, Florida. He identified 25 species of birds that used these fields. Sixteen species were found to be very common in the fields, 12 species were found to be year round residents, while 5 species used the field perimeters for nesting.

In addition, the EEB also has a report, prepared by Dr. James Strandberg at the University of Florida, that identifies 6 birds species using celery fields near Zellwood, Florida. Some avian mortality was observed in these fields as a result of the use of Monitor.

The EEB believes that there is sufficient information to indicate that celery fields and adjacent habitats (i.e., much of the celery producing area in Florida is located near wetland habitats) are extensively used by numerous avian for nesting and feeding purposes and therefore disagrees with the Registrants contention that celery would not be an appropriate crop for conducting field tests.

104.0

Summary

The Registrant has identified 5 concerns/problems for conducting a residue monitoring study and/or a full scale avian field test in celery. The EEB has provided comment as to why it believes that such studies are still required to satisfy data requirements. The EEB notes that during the last 8 years it has reviewed 8 registration actions (Section 18s, amended registrations and incremental risk assessments) for the use of Monitor on celery. During this time, the EEB has repeatedly stated that estimated residues exceed both acute and chronic RPAR criteria and that such use would result in potential serious hazards to non-target avian species.

As an alternative to conducting the study(s) in celery, the Registrant has offered to do a study in cabbage. However, because of the differences in the number and timing of applications and agricultural practices between the two crops, the EEB believes that extrapolating from cabbage to celery may not be appropriate and that the use of Monitor on celery must be studied before it can complete a hazard assessment and determine if the proposed use is safe.

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BIRDS FOUND IN ~~IN BELLE GLADE, FLORIDA~~ IN BELLE GLADE, FLORIDA

List Compiled by Bill Genung
University of Florida, AREC
Belle Glade, Florida

	<u>Time of Year</u> ^{1/}	<u>Location in Fields</u>	<u>Populations</u> ^{2/}
Meadowlark*	YR	General	C
Red-Winged Blackbird*	YR	General	VC
Boat-tailed Grackle	YR	General	VC
Common Grackle	YR	General	C
Bob-O-Link	FS	Sporadic	VC
Brown-headed Cowbird	FWS	Sporadic	VC
Mockingbird	YR	Borders	C
Loggerhead Shrike	YR	Borders	VC
House Sparrow	YR	General	VC
Marsh Hawk	FWS	General	FC
Kestrel	FWS	General	C
Killdeer*	YR	General	VC
Common Snipe	FWS	General	C
Palm Warbler	FWS	General	VC
Yellow-rumped Warbler	FS	General	VC
Common Yellowthroat*	YR	Borders	C
Sav. Sparrow	FWS	General	VC
Swamp Sparrow	FWS	Borders	VC
Cardinal	YR	Borders	FC
Towhee	YR	Borders	VC
Tree Swallow	FWS	General	VC
Barn Swallow	FS	General	VC
East Kingsbird	YR	Borders	VC
Phoebe	FWS	Borders	C
Com. Nighthawk*	SSu	General	VC

1/ YR = Year round; FS = Fall & Summer; FWS = Fall, Winter & Summer; SSu = Spring & Summer

2/ C = Common; VC = Very Common; FC = Fairly Common

*Observed nesting in field. Genung's observations over last 30 years. Nesting seen very seldom, probably due to amount of activity in fields which is not conducive to nesting. Nesting, when observed, is usually on field parameters.