Date Out: 7-26-93

Chemical Code:
DP Barcode:

ENVIRONMENTAL FATE AND GROUND WATER BRANCH

Review Action

To: Dennis Edwards, Jr., PM # 19
Registration Division (H7508W)

From: David Wells, Acting Section Head
Ground Water Technology Section
Environmental Fate & Ground Water Branch/EFED (H7507C)

Thru: Henry Jacoby, Chief
Environmental Fate & Ground Water Branch/EFED (H7507C) 1/26/93

Attached, please find the EFGWB review of...

Common Name:	Imidacloprid	Trade name:	NTN 33893, Bay NTN 33893
Company Name:	Miles, Inc.		
ID #:			
Purpose:	Review "Submission Related Data Package" for Imidacloprid		

Type Product:	Action Code:	EFGWB #(s):	Review Time:
Insecticide	001	93-0857	0.3 days

STATUS OF STUDIES IN THIS PACKAGE:

Guideline #	MRID	Status[1]
None	427341-02	C

STATUS OF DATA REQUIREMENTS ADDRESSED IN THIS PACKAGE:

Guideline #	Status[2]
-	-

[1]Study Status Codes: A = Acceptable U = Upgradeable C = Ancillary I = Invalid.
[2]Data Requirement Status Codes: S = Satisfied P = Partially satisfied N = Not satisfied R = Reserved W = Waived.

DP BARCODE: D192686

CASE: 023886 DATA PACKAGE RECORD DATE: 07/27/93
SUBMISSION: S443455 BEAN SHEET Page 1 of 1

* * * CASE/SUBMISSION INFORMATION * * *

CASE TYPE: REGISTRATION ACTION: 116 RESB NC-NON-FOOD/FEED U
CHEMICALS: 129099 Imidacloprid 94.0000%

ID#: 003125-URU NTN 33893 TECHNICAL
COMPANY: 003125 MILES INC
PRODUCT MANAGER: 19 DENNIS EDWARDS, JR. 703-305-6386 ROOM: CM2 207
PM TEAM REVIEWER: PORTIA JENKINS 703-305-5415 ROOM: CM2 205
RECEIVED DATE: 04/19/93 DUE OUT DATE: 10/26/93

* * * DATA PACKAGE INFORMATION * * *

DP BARCODE: 192686 EXPEDITE: N DATE SENT: 06/28/93 DATE RET.: / /
CHEMICAL: 129099 Imidacloprid
DP TYPE: 001 Submission Related Data Package
ADMIN DUE DATE: 10/26/93 CSF: N LABEL: N

ASSIGNED TO	DATE IN	DATE OUT
DIV : EFED	07/07/93	/ /
BRAN: EFGB	07/08/93	07/27/93
SECT: GTS	07/12/93	07/22/93
REVR : KCOSTELL	07/12/93	07/22/93
CONTR: 93-0857	07/12/93	07/22/93

* * * DATA REVIEW INSTRUCTIONS * * *

Attention: Kevin Costello

Review the attached study that was deferred to the ground water section by environmental fate section. Please inform the Registration Division if this study will have an impact on the current assessment of NTN 33893. Thank you.

* * * ADDITIONAL DATA PACKAGES FOR THIS SUBMISSION * * *

DP BC	BRANCH/SECTION	DATE OUT	DUE BACK	INS	CSF	LABEL

1. CHEMICAL:

Chemical name: 1-((6-Chloro-3-pyridinyl)methyl)-4,5-dihydro-N-nitro-1H-imidazol-2-amine
Common name: Imidacloprid
Trade name(s): NTN 33893, Bay NTN 33893
Structure:

2. TEST MATERIAL:

Not Applicable.

3. STUDY/ACTION TYPE:

Review Submission Related Data Package

4. STUDY IDENTIFICATION:

Title: Synopsis and Evaluation of the Behavior of Imidacloprid in Soil Under the Use Conditions in German Sugar Beet Growing Based on Calculations with the model PELMO.

Author: Merabet, H.; Pogany, E.; Schäfer, H.

Identifying No.: 129099
DP Barcode: D192686
EFGWB #: 93-0857
Date Sent to EFED: 7/7/93

5. REVIEWED BY:

Kevin J. Costello
Signature: Kevin J. Costello
Hydrologist
OPP/EFED/EFGWB/Ground-Water Section
Date 7/22/93

6. APPROVED BY:

David Wells
Signature: David A. Wells 7/21/93
Acting Section Head
OPP/EFED/EFGWB/Ground-Water Section

7. CONCLUSIONS

Miles has presented output from the German leaching model PELMO as evidence that their insecticide imidacloprid would not leach to ground water when applied for food uses. The input parameters for the simulation listed in this report generally seem defensible. However, although PELMO is a modification of EPA's own leaching model, PRZM2, EFGWB does not currently use, or even have a copy of, the PELMO model. Furthermore, EFGWB has no knowledge of evidence that this model has been validated, which would be necessary in order for such information to be accepted without supporting field studies.

The simulation results do not alter EFGWB's position that imidacloprid is persistent and may have a potential to contaminate ground water. This evaluation was based on chemical fate studies that indicated that imidacloprid has a significant number of physical/chemical characteristics in common with pesticides that are known to leach to ground water. Field dissipation study data obtained for EFGWB indicate very little movement of applied imidacloprid occurs below the top foot of the soil column. Less than a percent of applied radioactivity in the EFGWB study was accounted for in leachate. However, because the results of this study contradicts the apparent persistence and mobility of imidacloprid indicated by its chemical characteristics, the Chemistry Review Section of EFGWB has requested that longer-term field dissipation studies be performed.