

7-30-93

DP Barcode : D192938
 PC Code No : 113201
 EEB Out : JUL 30 1993

To: Rebecca Cool
 Product Manager 41
 Registration Division (H7505C)

From: Anthony F. Maciorowski, Chief
 Ecological Effects Branch/EFED (H7507C)

Attached, please find the EEB review of...

Reg./File # : 93OR0009
 Chemical Name : Vinclozolin
 Type Product : Fungicide
 Product Name : Ronilan 50DF
 Company Name : Oregon Department of Agriculture
 Purpose : Request to extend final application time from
 August 6 to September 10, 1993 for Ronilan
 applied to beans.

Action Code : 513 Date Due : 08/02/93
 Reviewer : H. Mansfield Date In : 07/21/93

EEB Guideline/MRID Summary Table: The review in this package contains an evaluation of the following:

GDLN NO	MRID NO	CAT	GDLN NO	MRID NO	CAT	GDLN NO	MRID NO	CAT
71-1(A)			72-2(A)			72-7(A)		
71-1(B)			72-2(B)			72-7(B)		
71-2(A)			72-3(A)			122-1(A)		
71-2(B)			72-3(B)			122-1(B)		
71-3			72-3(C)			122-2		
71-4(A)			72-3(D)			123-1(A)		
71-4(B)			72-3(E)			123-1(B)		
21-5(A)			72-3(F)			123-2		
71-5(B)			72-4(A)			124-1		
72-1(A)			72-4(B)			124-2		
72-1(B)			72-5			141-1		
72-1(C)			72-6			141-2		
72-1(D)						141-5		

Y=Acceptable (Study satisfied Guideline)/Concur

P=Partial (Study partially fulfilled Guideline but additional information is needed)

S=Supplemental (Study provided useful information but Guideline was not satisfied)

N=Unacceptable (Study was rejected)/Nonconcur



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 20 1993

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Request for the Revision of Section 18 for the Use of
Vinclozolin on Snap Beans in Oregon

FROM: Anthony F. Maciorowski, Chief *A.F. Maciorowski*
Ecological Effects Branch
Environmental Fate and Effects Division (H7507C)

TO: Rebecca Cool, PM 41
Registration Support Branch
Registration Division (H7507C)

Since the planting of 5,340 acres of snap bean was delayed by a late, wet spring, the Oregon Department of Agriculture has requested that the Section 18 use of vinclozolin on snap beans be extended from August 6, 1993 to September 10, 1993.

EEB has considered the request and has concluded that the Aleutian Canada Goose should not be at an increased risk from this extension if the bean fields are thoroughly disked immediately following harvest so that bean residues are inaccessible to geese. In order to clear the fields of vegetation, more than one disking may be necessary. The barren fields should not attract geese.



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DP BARCODE: D192938

CASE: 284427
SUBMISSION: S444082

DATA PACKAGE RECORD
BEAN SHEET

DATE: 07/13/93
Page 1 of 1

*** CASE/SUBMISSION INFORMATION ***

CASE TYPE: EMERGENCY EXEMP ACTION: 513 SEC18-OLD F/F USE AMND
CHEMICALS: 113201 Vinclozolin

%

ID#: 93OR0009

COMPANY:
PRODUCT MANAGER: 41 REBECCA COOL 703-308-8417 ROOM: CS1
PM TEAM REVIEWER: LIBBY PEMBERTON 703-308-8326 ROOM: CS1
RECEIVED DATE: 07/09/93 DUE OUT DATE: 08/28/93

*** DATA PACKAGE INFORMATION ***

DP BARCODE: 192938 EXPEDITE: N DATE SENT: 07/13/93 DATE RET.: / /

CHEMICAL: 113201 Vinclozolin

DP TYPE: 001 Submission Related Data Package

ADMIN DUE DATE: 08/02/93

CSF: N

LABEL: N

ASSIGNED TO	DATE IN	DATE OUT
DIV : EFED	07/19/93	/ /
BRAN: EEB	07/20/93	/ /
SECT:	/ /	/ /
REVR :	/ /	/ /
CONTR:	/ /	/ /

*** DATA REVIEW INSTRUCTIONS ***

According to the registrant new studies recently submitted may assuage some of our avian concerns. Or is requestig extension of time. Note applications by ground only and fields will be disked. They need an answer ASAP.

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

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

Oregc

DEPARTMENT
AGRICULTURE

July 8, 1993

Ms. Rebecca Cool, Section Head (H7505W)
Emergency Response and Minor Use Section
Registration Support Branch - Registration Div./OPP
U.S. Environmental Protection Agency
401 M Street SW
Washington, DC 20460

RE: SPECIFIC EXEMPTION APPROVAL FOR RONILAN 50DF FOR
BEANS, FILE SYMBOL 93-OR-09

The approval dated June 18, 1993, Item 13, indicates this specific exemption expires on August 6, 1993.

The Northwest Food Processors Association (NWFPA) has informed the department that bean growers and processors are still facing an economic emergency for approximately 5,340 acres of beans (22% of the requested acres) due to the early expiration date. The original request dated February 17, 1993, indicated a use period from May 1 to September 30, 1993. The late, wet spring has seriously delayed plantings and a recent survey by NWFPA indicates that 5,340 acres of beans will not be treated if the August 6 expiration date is not extended to at least September 10, 1993.

The decision to terminate Ronilan applications on August 6, 1993, was made to protect Aleutian Canada geese (an endangered species) which have been recorded to arrive as early as October 1.

Under the terms of the Section 18 approval of June 18, 1993, we believe there will be no exposure of Ronilan (vinclozolim) to any geese.

1. All bean fields must be disked under immediately following harvest. The disking process leaves no vegetative material exposed in the field, in other words, the field is totally bare once the disking process is completed. Geese are not attracted to bare fields. Geese feed in fields where there is an adequate supply of grains, seeds and other nutrients; bare fields are not desirable feeding areas.

Barbara Rober
Governor



635 Capitol Street
Salem, OR 97310



Oregon State University
 Extension Service
 Oregon Pesticide Impact Assessment Program
 Department of Agricultural Chemistry
 Jeffrey J. Jenkins
 John Rinehold
 January 11, 1993

A Benefits Analysis

Ronilan, Rovral Benlate, and No Treatment for Control of Gray and White Mold in Bush Beans

The PBA₂ model projects that the loss of the Ronilan section 18 bush bean registration may reduce regional farm income by over \$2.2 million in 1993 and that about 35,000 pounds (active ingredient) of the Rovral Benlate combination will be required. The Oregon Pesticide Impact Assessment Program (OPIAP) is planning a 1993 bush bean study using the PBA₂ model to assist in the evaluation of the economic impacts of both chemical and non-chemical alternatives for control of white and gray mold on bush beans. This comprehensive and formalized approach should allow for an early benefits assessment based upon existing data which is acceptable to the EPA, identify data gaps, and direct both small plot and on-farm research designed to provide a robust benefits assessment of alternative control measures which will be useful in strategic planning for disease control in bush beans. This study may lead to the development of acceptable non-chemical alternatives to Ronilan. Growers need help and the Northwest Food Processors have demonstrated sincerity in finding a solution to this annual problem.

Purpose of PBA₂

The Pesticide Benefit Assessment 2 model (PBA₂) is being developed by Ohio State University to help answer complex questions in assessing pesticide benefits (Frank Hall, personal communication). PBA₂ is designed to provide a framework for uniform benefits analysis regional and national where appropriate. It will assist in evaluating pesticide crop protection and the consequences of regulatory action. PBA₂ is not a predictive model, but a decision support program that highlights relative changes in crop production with respect to defined changes in the system.

PBA₂ pesticide benefits information is easily accessible and well organized. It can be used for long term strategy planning and short term decision making about pesticides. All data are standardized and can be updated. Industry leaders can focus in on vulnerable Oregon commodities and assess the impact of new pesticide regulations on revenues and production. Changes in grower dollar returns and regional dollar returns along with necessary adjustments in production are available within a few keystrokes.

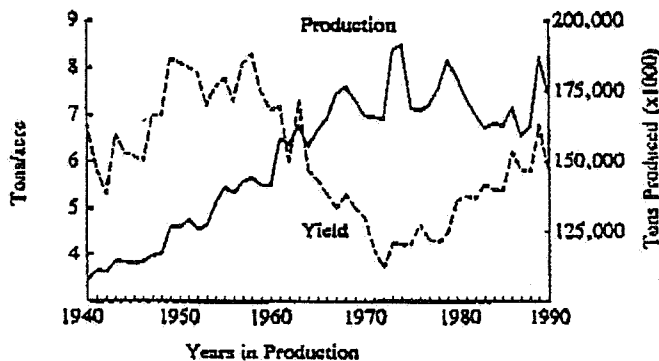
PBA₂ can analyze data and project economic impacts to producers and consumers if a review chemical were not available. This analysis can then be included in the benefits portion of an EPA special pesticide review. Several things are included in the economic portion of a special review: changes in crop prices, value of production, producer in-

come, consumer impacts, and net economic impact. Economic analysis is complex and is based sole on quantitative data, other factors such as grower management skills and consumer behavior are not measured.

Bean Production

Commercial bush beans are a relatively new crop to Oregon. Blue lake pole beans were grown in the Willamette Valley until 25 years ago when Dr. Jim Baggott introduced the first bush bean specifically breed for this climate. Within a few years Oregon bush beans displaced the pole beans. Bush beans were mechanically harvested and ma-

Figure 1. Yield and Production of Bush Beans in Oregon from 1940 to 1990. NASS



mold, damaged beans, or foreign matter were equal to or exceeded 2% of incoming load weight. Actual cost calculations are more complicated, however, as seen in Table 2. Beans are picked, normally at 45% sieve sizes 1 to 4 and 55% sieve sizes 5 and 6, but other factors such as cannery load and availability of harvesters will alter this. In 1991 the base price for beans was \$185.00 a ton.

Table 2. Price Calculation According to Bean Sieve Size.

Sieve sizes 1, 2, 3, 4	\$272.50/ton
Sieve sizes 5, 6	\$121.00/ton
All other beans	No value

In 1991 growers harvesting beans with less than 2% damage (mold, insect bites, etc.) were paid the full price, or about \$185 per ton with sieve size taken into consideration. (This damage level is counted as grade "A.") When damage was at least 2% but less than 4%, that weight was subtracted from the total. When dockage was 4% or greater, but did not exceed 10%, a double dockage was assigned—that is, 4% became 8% and the resulting weight was subtracted from the total net weight. Any load nearing 10% or greater was rejected. It should be noted that moldy beans are processed along with the clean beans, but this reduces the grade from "A" to "B."

The average price per ton is adjusted annually to reflect market conditions. For example, through much of the 1980s the grower received 80% to 100% of the price, although in 1982 the price was 60% of normal. In 1988 and 1989 a drought in the Midwest sent the price of beans to 185% and 163% of normal. Then in 1991, the price was 90% of the \$185.00. In other words, growers received 10% less for their beans than the current \$185 price.

Yield and quality are both affected by mold. Mold directly attacks the pods, making them unusable. Mechanical harvesters depend upon brushes to strip bean pods from the plants. White mold debilitates the plants, and when harvesters attempt to strip the pods from the plants, the plants offer little resistance and are pulled from the field and expelled, pods and all. As a result, a moldy field can often give poor yields.

Although growers may be able to recover a loss through careful harvesting, the cannery must clean the product during the off season. Repacking is costly, from 4 to 9 cents per pound depending upon variety. Moreover, normally about 20% of the pack is lost during repackaging whenever the pods must be cleaned. Since some canneries are cooperative, the growers will also have to bear this loss.

White and Gray Mold Incidence and Efficacy of Ronilan, Rovral, and Benlate

About 60% of the growers received "A" grade for their beans in 1991. The remaining 40% had damage greater than 2%, with some growers sustaining damage over 4%. Mold infections were counted in the processor as seen in Table 3.

Table 3. Docking Penalties According to Percentage of Incidence of Mold, Insect Damage, and Foreign Matter.

Mold Amount	Percentage Estimate	Dockage Penalty
None	0%	No docking
Light	0.1% to 1.9%	
Moderate	2.0% to 3.9%	Standard docking
Heavy	> 4.0%	Double docking
Extreme	> 10%	Load rejected

Ronilan at 0.5 pound (active ingredient) per acre has given consistent mold control for nine years, according to processor docking records. Rovral (0.75 pound ai) plus Benlate (0.75 pound ai) did not control mold as well as Ronilan in 1991 field trials (Paul Koepsell, personal communication); although gray mold control was satisfactory, white mold control was not. Benlate controls white mold, but gray mold is generally resistant and may actually be aggravated by use of Benlate alone. Rovral does not control white mold. Fungicide trials conducted in 1992 demonstrated the value of Ronilan in controlling mold. The data from the 1992 fungicide trial was used in the PBA₂ model.

Insect bean damage percentages were derived by consulting Dan Curtis, fieldman at Agri-Pac, a food processing plant in Salem, Oregon. In general, insect damage on beans is about 0.5% in any given year. Foreign matter contributed a very small amount of damage and bean mold accounted for 0.5%. These combined equaled 1% damage.

Using the PBA₂ model the impact of the loss of Ronilan on the bean industry was examined. The two alternatives to Ronilan currently available are no chemical treatment or treatment with Rovral plus Benlate at 0.75 pounds (a.i.) each. In 1992 about 9% of the fields were not treated. At least one of these was for organic beans (variety Dandy). Although no research data is available, there is considerable interest in this variety as one alternative to chemical treatment because it is an upright bean and tends to be less susceptible to mold. A good upright bean plant which holds the pods above the ground such as Dandy or Oregon 7610 may hold promise.