12-10-91

D169204
DPBARCODE (RECORD)
129011
SHAUGHNESSY NO

4
REVIEW NO.

EEB REVIEW

DATE IN: 10-03-91 OUT: _____

CASE # : 280884 REREG CASE #: _____
SUBMISSION # : S403815 LIST A, B, C, D
ID # : 000707-EUP-121

DATE OF SUBMISSION 08-30-91

DATE RECEIVED BY EFED 10-01-91

SRRD/RD REQUESTED COMPLETION DATE 12-19-91

EEB ESTIMATED COMPLETION DATE 12-19-91

SRRD/RD **ACTION** CODE/TYPE OF REVIEW 736 - EUP Exten. Req.

MRID #(S) _____

_____

DP TYPE 001 - Submission Related Data Package

PRODUCT MANAGER, NO. C. Giles-Parker (22)

PRODUCT NAME(S) RH-7592

TYPE PRODUCT F R I N H D Fungicide

COMPANY NAME Rohm and Haas Company

SUBMISSION PURPOSE Review request for extension of

INCLUDE USE(S) EUP on stone fruits

_____

COMMON CHEMICAL NAME Fenbuconazole

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

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

MEMORANDUM

SUBJECT: EUP Extension for RH-7592 (Fenbuconazole)
DP Barcode: 169204
ID No: 129011

FROM: Douglas J. Urban, Acting Chief
Ecological Effects Branch
Environmental Fate and Effects Division (H7507C)

Douglas J. Urban 12/19/91

TO: Cynthia Giles-Parker, PM 22
Fungicide/Herbicide Branch
Reregistration Division (H7505C)

BACKGROUND

Rohm and Haas Company has requested an extension of its EUP for RH-7592 (Fenbuconazole) on stone fruit. The objectives of this EUP extension request as proposed by the registrant are to:

-collect additional efficacy and residue data in certain states

-collect data on air versus ground applications

The original EUP was granted on February 15, 1990 for 558 pounds of active ingredient per year (730 acres per year) and was spread throughout 22 states. February 22, 1991 the EUP was amended and approved for 468.5 pounds of active ingredient per year (625 acres per year) and was spread through 25 states. The EUP extension for the latter limits has been requested to run until October 31, 1993.

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EEB REVIEW
RH-7592 (Fenbuconazole)

100.0 Submission Purpose and Label Information

100.1 Submission Purpose and Pesticide Use

Request for experimental use permit (EUP) extension for RH-7592 fungicide on stone fruit.

100.2 Formulation Information

Active ingredient
∝-[2-(4-chlorophenyl)ethyl]-∝-phenyl-1H-1,2,4-triazole-1-propanitrile.....22.8%*
Inert ingredients.....77.2%

*Equivalent to 2 lbs active ingredient per gallon.

100.3 Application Methods, Directions, Rates

See attached label.

100.4 Target Organisms

Blossom Blight (*Monilinia spp.*)
Fruit Brown Rot (*Monilinia spp.*)
Scab
Rust (*Tranzschelia sp.*)

100.5 Precautionary Labeling

Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Drift or runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Do not contaminate water when disposing of equipment washwaters and rinsates.

101.0 Hazard Assessment

101.1 Discussion

The objectives of this EUP extension request as proposed by the registrant are to:

-collect additional efficacy and residue data in certain states

-collect data on air versus ground applications (attached label is, therefore, a revised label).

The EUP extension has been requested to run until October 31, 1993 with the following use pattern:

REGION	STATE	# TRIALS	# ACRES	TOTAL LBS AI
WESTERN	California	60	150	112.5
	Colorado	4	10	7.5
	Idaho	10	25	18.7
	Montana	4	10	7.5
	Oregon	16	40	30.0
	Utah	8	20	15.0
	Washington	16	40	30.0
	TOTAL	118	295	221.2
EASTERN	Alabama	2	5	3.7
	Arkansas	4	10	7.5
	Delaware	4	10	7.5
	Georgia	16	40	30.0
	Illinois	2	5	3.7
	Louisiana	4	10	7.5
	Maryland	4	10	7.5
	Michigan	16	40	30.0
	Missouri	2	5	3.7
	New Jersey	8	20	15.0
	N. Carolina	4	10	7.5
	Ohio	2	5	3.7
	Pennsylvania	8	20	15.0
	S. Carolina	16	40	30.0
	Texas	8	20	15.0
	Virginia	8	20	15.0
	West Virginia	8	20	15.0
	Wisconsin	8	20	15.0
	TOTAL	132	330	247.3
	GRAND TOTAL	250	625	468.5

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101.2 Likelihood of Adverse Effects to Nontarget Organisms

Environmental Fate Data

The following was excerpted from a 1989 EEB review by Harry Winnik:

> The following data was obtained from the Environmental Fate and Groundwater Branch review of EUP to test RH-7592 on stone fruit, submitted by Clinton Fletcher, Chemist, Review Section 1, EFGWD/EFED:
>
> . RH-7592 will be stable to hydrolysis at pH levels found in the environment.
>
> . RH-7592 will degrade in soil under aerobic conditions with a half-life of 285 and 367 days in Lawrenceville silty clay loam and Pasquotank sandy loam soils, respectively.
>
> . RH-7592 will degrade in soil under anaerobic conditions with a half-life of 451 and 655 days in the Lawrenceville silty clay loam and the Pasquotank sandy loam soils, respectively.
>
> . RH-7592 will be only slightly mobile to immobile in soils. Adsorption appears to be associated with percent organic matter present. RH-7592 will be slightly mobile in soils containing a low percent organic material (≤1%) and relatively immobile in soils with higher levels of organic material.
>
> . RH-7592 residues have only a slight potential to leach in the soil environment.
>
> . RH-7592 will not bioaccumulate in fish and any residues that are taken up will be depurated when fish are no longer exposed to RH-7592 residues.
>
> The above data indicate that RH-7592 is quite stable and may be persistent in the environment (under aerobic conditions up to 367 days and under anaerobic conditions up to 655 days).

Terrestrial Hazard

RH-7592 may be characterized as practically non-toxic on an acute basis to avian species (Bobwhite quail Colinus virginianus, LD_{50}>2150 mg a.i./kg).

RH-7592 may be characterized as slightly toxic on a

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platyrhynchos, LC_{50} of 2013 ppm, and Bobwhite quail Colinus virginianus, LC_{50} of 4050 ppm).

RH-7592 may be characterized as relatively non-toxic to nontarget insects (Honey bee Apis melifera, LD_{50}>292.18 ug a.i./bee).

At a maximum application rate of 7.5 oz/A RH-7592 (equivalent to 0.125 lbs a.i./A) the maximum residue expected on such food items as insects and forage would be 1.5 ppm and 7.25 ppm respectively. These levels are significantly below the LC_{50} values for Bobwhite Quail and Mallard Ducks with respect to RH-7592.

On the basis of these data, the proposed EUP does not pose a significant threat to birds or insects.

At the time of this review there was no mammalian toxicity data available. Therefore, a hazard assessment to mammals was not possible.

Aquatic Hazard

RH-7592, with a 96-hour LC_{50} or 1.5 mg a.i./L for Rainbow trout Salmo gairdneri, is considered moderately toxic to coldwater fish. Data for the Bluegill sunfish (Lepomis macrochirus), 96-hour LC_{50} of 0.68 mg a.i./L, indicate that RH-7592 is highly toxic to warmwater fish.

The 48-hour EC_{50} for Daphnia magna of 2.3 mg a.i./L indicates that RH-7592 is moderately toxic to freshwater invertebrates.

Based on the EEB scenario of a 10-acre drainage basin draining into a one acre farm pond, the maximum estimated environmental concentration (EEC) for the maximum application rate of 0.125 lbs a.i./A would be approximately 7.7 ppb. This concentration is less than one-tenth the LC_{50} values for coldwater fish, warmwater fish and freshwater invertebrates. As such, RH-7592 does not pose a significant hazard to aquatic organisms as a result of single applications. However, according to the label instructions the potential exists for multiple applications of RH-7592. Subsequently, the EPA Pesticide Residue Fate Simulation computer program was used to estimate the maximum and average residues expected from drift and runoff from a 10 acre treated area into a 1 acre pond, 6 ft. deep as a result of multiple applications of RH-7592. The application rate was assumed to be 0.125 lb. a.i./acre. Since the solubility of RH-7592 is 3.8 ppm the runoff rate was

was assumed to be 0.125 lb. a.i./acre. Since the solubility of RH-7592 is 3.8 ppm the runoff rate was assumed to be 2%. Using EEC calculation formulas for Aerial Application or Mist Blower, an EEC of 1.96 ppb was obtained. Assuming half life figures of 285 days and 655 days, application intervals of 14 day and 10 days respectively, number of applications of 6 and 8 respectively, and lengths of simulation of 84 days and 80 days respectively, maximum and average residues were calculated. The table below lists the values obtained for each data set:

	Set 1	Set 2
EEC/Application	1.96 ppb	1.96 ppb
Half Life	285 days	655 days
# of Applications	6	8
Application Interval	14 days	10 days
Length of Simulation	84 days	80 days
Maximum Residue	10.8 ppb	15.1 ppb
Average Residue	6.4 ppb	8.6 ppb

The average residues calculated for data sets 1 and 2 approach and exceed respectively 0.01 LC_{50} of warmwater fish of 0.68 mg. a.i./L (6.8 ppb). These results combined with the fact that the LC_{50} of warmwater fish is less than 1 mg. a.i./L, trigger the need for Fish Early Life Stage and Invertebrate Life Cycle studies prior to Section 3 registration.

The only changes from the 1989 review is that in 1991 the EPA Pesticide Residue Fate Simulation computer program was run with the following parameters:

	SET 1	SET 2	SET 3	SET 4
EEC/APPLICATION[1]	1.3 ppb	1.3 ppb	1.3 ppb	1.3 ppb
HALF LIFE	655 days[2]	655 days[2]	285 days[2]	285 days[2]
# OF APPLICATIONS[3]	8	8	8	8
APPLICATION INTERVAL[4]	10 days	14 days	10 days	14 days
LENGTH OF SIMULATION	100 days	100 days	100 days	100 days
RESIDUE	10.0 ppb	9.9 ppb	9.6 ppb	9.3 ppb

[1]The EEC sheet for a single application is attached (attachment A).

[2] 655 days is the anaerobic half-life of RH-7592 in sandy loam soil, which best approximates the half-life of RH-7592 that would be found in water affected from drift and runoff from use on stone fruit crops. 285 days is the aerobic half-life of RH-7592 in silty clay loam. This value was employed to find the range of possible residues (attachment B).

[3]The maximum number of applications possible when there is a maximum of 1 pound per acre active ingredient applied per season.

[4]According to the label, application interval for repeat applications ranges from 10 to 14 days.

RH-7592 is extremely persistent in the aquatic environment. With repeat applications at either 10 or 14 day intervals, there are several triggers for the fish early life stage and invertebrate life cycle studies:

- 1/100 of the LC_{50} for Bluegill sunfish is surpassed whether the half-life is considered to be 655 days (sandy loam soil anaerobic half-life) or 285 days (silty clay loam soil aerobic half-life).

- the LC_{50} for the acute toxicity to warmwater fish is < 1 ppm

- RH-7592 is extremely persistent in water. The half-life from photolysis in water is 1283 days and the compound is stable to hydrolysis at pH range of 5-9.

The avian reproduction study, preferably with bobwhite and mallard is also triggered by RH-7592's persistence in the environment.

Plant Hazard

Due to the low water solubility of RH-7592 (3.8 ppm) the hazard to aquatic plants should be minimal and aquatic plant growth testing on the freshwater green alga Selenastrum capricornutum will not be required at this time.

101.1 Endangered Species Consideration

With low application rate, low toxicity, and limited acreage, this proposed EUP extension does not pose a hazard to endangered species.

101.4 Adequacy of Toxicity Data

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Again, the following summary is excerpted from the 1989 EEB review:

- Fletcher, D. W., (1988), 21-Day Acute Oral LD_{50} Study with RH-7592 Technical in Bobwhite Quail, prepared by Bio-Life Associates, Ltd., Neillsville, Wisconsin, Report No. 88RC-0021, Submitted by

Rohm and Haas Company, Spring House, Pennsylvania. EPA Accession No. 410312-31

This study is scientifically sound and fulfills the guideline requirements for an avian single-dose oral toxicity test.

The oral LD_{50} of RH-7592 Technical for Bobwhite quail Colinus virginianus was greater than 2,150 mg a.i./kg of body weight as determined by this study. RH-7592 is considered practically non-toxic to Bobwhite Quail.

- Fletcher, D. W., (1988), 8-Day Acute Dietary Study with RH-7592 Technical in Mallard Ducklings, prepared by Bio-Life Associates, Ltd., Neilsville, Wisconsin, Report No. 88RC-0019, submitted by

Rohm and Haas Company, Spring House, Pennsylvania, EPA Accession No. 410312-32

This study is scientifically sound and fulfills the guideline requirements for an avian dietary LC_{50} test.

The dietary LC_{50} of RH-7592 Technical for Mallard duck Anas platyrhynchos was 2,013 ppm active ingredient as determined by this study. RH-7592 Technical is considered slightly toxic to Mallards. The NOEC was 312 ppm active ingredient.

- Fletcher, D. W., (1988), 8-Day Acute Dietary Study with RH-7592 Technical in Bobwhite Quail, prepared by Bio-Life Associates, Ltd., Neilsville, Wisconsin, Report No. 88RC-0020, submitted by

Rohm and Haas Company, Spring House, Pennsylvania, EPA Accession No. 410312-33

This study is scientifically sound and fulfills the guideline requirements for an avian dietary LC_{50} test.

The dietary LC_{50} of RH-7592 Technical for Bobwhite quail Colinus virginianus was 4,50 ppm active ingredient as determined by this study. RH-7592

Technical is considered slightly toxic to Bobwhite Quail. The NOEC was 625 ppm active ingredient.

- Swigert, J.P., (1988), Acute Flow-Through Toxicity of RH-7592 Technical to Bluegill sunfish (Lepomis macrochirus), prepared by Analytical Bio-Chemistry Laboratories, Inc., Columbia, Missouri, Report No. 88RC-0024, submitted by

Rohm and Haas Company, Spring House, Pennsylvania, Accession No. 410735-06.

This study appears a scientifically sound and fulfills the guideline requirements for an acute 96-hour flow-through toxicity test using a warmwater fish species.

The 96-hour LC_{50} of RH-7592 Technical to Bluegill sunfish (Lepomis macrochirus) was 0.68 mg a.i./L based on mean measured concentrations as determined by this study. RH-7592 Technical is classified as highly toxic to Bluegill. The NOEC was 0.42 mg a.i./L after 96 hours.

- Swigert, J.P., (1988), Acute Flow-Through Toxicity of RH-7592 Technical to Rainbow trout Salmo gairdneri, prepared by Analytical Bio-Chemistry Laboratories, Inc., Columbia, Missouri, Report No. 88RC-0025, submitted by

Rohm and Haas Company, Spring House, Pennsylvania, Accession No. 410312-35.

This study appears a scientifically sound and fulfills the guideline requirements for an acute 96-hour flow-through toxicity test using a coldwater fish species.

The 96-hour LC_{50} of RH-7592 Technical to Rainbow trout Salmo gairdneri was 1.5 mg a.i./L based on mean measured concentration as determined by this study. RH-7592 Technical is classified as moderately toxic to Rainbow Trout. The NOEC was 0.70 mg a.i./L after 96 hours.

- Burges, D., (1988), Acute Flow-Through Toxicity of RH-7592 Technical to Daphnia magna, prepared by Analytical Bio-Chemistry Laboratories, Inc., Columbia, Missouri, Report No. 88RC-022, submitted by

Rohm and Haas Company, Spring House, Pennsylvania Accession No. 410735-07.

This study appears scientifically sound and fulfills the guideline requirements for an acute 48-hour flow-through toxicity test for freshwater invertebrates.

The 48-hour EC_{50} of RH-7592 Technical to Daphnia magna was 2.3 mg a.i./L based on mean measured concentrations as determined by this study. RH-7592 Technical is classified as moderately toxic to Daphnia magna. The NOEC was determined to be 0.78 mg a.i./L after 48 hours.

- Atkins, E.L., (1988), RH-7592 Technical: Bee Adult Toxicity Dusting Test, conducted by Department of Entomology, University of California, Report No. 88RC-0066, submitted by

Rohm and Haas Company, Spring House, Pennsylvania
Accession No. 410312-38

This study is scientifically sound and fulfills the guideline requirements for an acute contact LD_{50} test using honeybees.

The 96-hour LD_{50} of RH-7592 Technical to Honey bee Apis melifera was greater then 292.18 ug a.i./bee as determined by this study. RH-7592 Technical is considered relatively non-toxic to honeybees when administered as a dusting powder. The NOEL for this study was 292.18 ug a.i./bee, the only dosage tested.

Prior to section 3 registration the following data will be required:

- Avian reproduction (preferably Mallard and Bobwhite)
- Fish early life stage (with Bluegill sunfish)
- Invertebrate life cycle

Following review of required EEB data, submission of additional toxicity data may be necessary.

101.5 Adequacy of Labeling

The labeling is adequate for the current proposed uses of RH-7592.

102.0 Classification

Not classified.

103.0 Conclusions

Based on available data, the proposed EUP extension will not pose a significant adverse effect to avian, fish, invertebrate, or insect species.

RH-7592 has a low water solubility. Therefore, the proposed EUP extension will not pose significant adverse effects to aquatic plants.

Environmental fate data indicates that RH-7592 is persistent in both aquatic and terrestrial environments. Therefore, the following studies are required prior to section 3 registration:

- Avian reproduction (preferably with mallard and bobwhite).

-Fish early life stage with Bluegill sunfish and aquatic invertebrate life-cycle.

Heather Mansfield, Zoologist, Section 2
Ecological Effects Branch
Environmental Fate and Effects Division (H7507C)

Heather Mansfield 12/5/91

Allen Vaughan, Acting Head, Section 2
Ecological Effects Branch
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Allen W. Vaughan 12.6.91

Douglas J. Urban, Acting Chief
Ecological Effects Branch
Environmental Fate and Effects Division (H7507C)

Douglas J. Urban 12/10/91

Attachment A

EEC CALCULATION SHEET

I. For un-incorporated ground application

A. Runoff

___lb(s) x 0.0_ (_% runoff) x 10 (A) (from 10 A. drainage basin) = _____lb(s) (tot.runoff)

EEC of 1 lb a.i. direct application to 1 A. pond 6-foot deep = 61 ppb

Therefore, EEC = 61 ppb x ____(lb) = _____ ppb

II. For incorporated ground application

A. Runoff

___lb(s) ÷ _____ (cm) (depth of incorporation) x 0.0_ (_% runoff) x 10 (A) (10 A d.basin) = _____lb(s) (tot.runoff)

Therefore, EEC = 61 ppb x _____(lbs) = _____ppb

III. For aerial application (or mist blower)

A. Runoff

0.125 lb(s) x 0.6 (appl. efficiency) x 0.02 (_% runoff) x 10 (A) (10 A. d.basin) = .015 lb(s) (tot.runoff)

B. Drift

.125 lb(s) x 0.05 (5 % drift) = .0063 lb(s) (tot. drift)

Tot. loading = .015 lb(s) (tot. runoff) + .0063 lb(s) (tot. drift) = .0213 lb(s)

Therefore, EEC = 61 ppb x .0213 (lbs) = 1.3 ppb

Attachment B

DAILY ACCUMULATED PESTICIDE RESIDUES---MULTP. APPL.

Chemical name	RH-7592 (FENBUCONAZOLE)
Initial concentration (ppm)	1.3
Half-life	655
A number of application	8
Application interval	10
Length of simulation (day)	100

DAY	RESIDUE (PPM)
0	1.3
1	1.298625
2	1.297252
3	1.295879
4	1.294509
5	1.29314
6	1.291772
7	1.290406
8	1.289041
9	1.287677
10	2.586315
11	2.58358
12	2.580847
13	2.578117
14	2.575391
15	2.572667
16	2.569946
17	2.567227
18	2.564512
19	2.5618
20	3.85909
21	3.855008
22	3.850931
23	3.846858
24	3.84279
25	3.838725
26	3.834665
27	3.830609
28	3.826557
29	3.82251
30	5.118468
31	5.113054
32	5.107645
33	5.102243
34	5.096847
35	5.091456
36	5.086071
37	5.080692
38	5.075318
39	5.069949
40	6.364587
41	6.357855
42	6.351131
43	6.344414

44	6.337703
45	6.331
46	6.324303
47	6.317615
48	6.310932
49	6.304257
50	7.59759
51	7.589553
52	7.581527
53	7.573508
54	7.565498
55	7.557495
56	7.549502
57	7.541518
58	7.53354
59	7.525573
60	8.817612
61	8.808286
62	8.79897
63	8.789663
64	8.780367
65	8.77108
66	8.761802
67	8.752537
68	8.743279
69	8.73403
70	10.02479
71	10.01419
72	10.0036
73	9.993018
74	9.982449
75	9.971891
76	9.961342
77	9.950807
78	9.940282
79	9.929768
80	9.919266
81	9.908774
82	9.898294
83	9.887824
84	9.877367
85	9.866921
86	9.856484
87	9.846059
88	9.835645
89	9.825241
90	9.81485
91	9.804468
92	9.794098
93	9.78374
94	9.773392
95	9.763055
96	9.752729
97	9.742412
98	9.732108
99	9.721815
100	9.711532
Maximum residue ----------	10.02479
Average residue ----------	6.540923

→ Decades

DAILY ACCUMULATED PESTICIDE RESIDUES---MULTP. APPL.

Chemical name	RH-7592 (FENBUCONAZOLE)
Initial concentration (ppb)	1.3
Half-life	655
A number of application	8
Application interval	14
Length of simulation (day)	100

DAY	RESIDUE (PPM)
0	1.3
1	1.298625
2	1.297252
3	1.295879
4	1.294509
5	1.29314
6	1.291772
7	1.290406
8	1.289041
9	1.287677
10	1.286315
11	1.284955
12	1.283596
13	1.282238
14	2.580882
15	2.578152
16	2.575425
17	2.572702
18	2.56998
19	2.567262
20	2.564547
21	2.561834
22	2.559125
23	2.556418
24	2.553714
25	2.551013
26	2.548315
27	2.54562
28	3.842927
29	3.838863
30	3.834802
31	3.830746
32	3.826694
33	3.822647
34	3.818604
35	3.814565
36	3.81053
37	3.8065
38	3.802474
39	3.798452
40	3.794435
41	3.790422
42	5.086413
43	5.081033
44	5.075659

45	5.07029
46	5.064927
47	5.059571
48	5.054219
49	5.048873
50	5.043533
51	5.038199
52	5.03287
53	5.027546
54	5.022229
55	5.016917
56	6.311611
57	6.304935
58	6.298267
59	6.291605
60	6.284951
61	6.278303
62	6.271663
63	6.265029
64	6.258403
65	6.251783
66	6.245171
67	6.238566
68	6.231967
69	6.225376
70	7.518791
71	7.510839
72	7.502895
73	7.494959
74	7.487032
75	7.479113
76	7.471202
77	7.4633
78	7.455406
79	7.447521
80	7.439645
81	7.431775
82	7.423915
83	7.416063
84	8.708219
85	8.699008
86	8.689807
87	8.680616
88	8.671436
89	8.662264
90	8.653101
91	8.643949
92	8.634806
93	8.625673
94	8.616551
95	8.607437
96	8.598333
97	8.589239
98	9.880154
99	9.869704
100	9.859264
Maximum residue ----------	9.880154
Average residue ----------	5.159456

DAILY ACCUMULATED PESTICIDE RESIDUES---MULTP. APPL.

Chemical name	RH-7592
Initial concentration (ppm)	1.3
Half-life	285
A number of application	8
Application interval	14
Length of simulation (day)	100

DAY	RESIDUE (PPM)
0	1.3
1	1.296842
2	1.293692
3	1.290549
4	1.287414
5	1.284287
6	1.281167
7	1.278055
8	1.274951
9	1.271854
10	1.268764
11	1.265682
12	1.262608
13	1.259541
14	2.556481
15	2.550271
16	2.544076
17	2.537896
18	2.531731
19	2.525581
20	2.519446
21	2.513326
22	2.507221
23	2.50113
24	2.495055
25	2.488994
26	2.482948
27	2.476916
28	3.7709
29	3.76174
30	3.752602
31	3.743486
32	3.734393
33	3.725321
34	3.716272
35	3.707245
36	3.698239
37	3.689256
38	3.680294
39	3.671354
40	3.662436
41	3.653539
42	4.944664
43	4.932653
44	4.920671

45	4.908718
46	4.896794
47	4.884899
48	4.873033
49	4.861196
50	4.849387
51	4.837607
52	4.825856
53	4.814133
54	4.802439
55	4.790774
56	6.079136
57	6.064369
58	6.049638
59	6.034942
60	6.020282
61	6.005658
62	5.99107
63	5.976517
64	5.961999
65	5.947516
66	5.933069
67	5.918657
68	5.904279
69	5.889938
70	7.17563
71	7.158199
72	7.14081
73	7.123465
74	7.10616
75	7.088899
76	7.071679
77	7.054501
78	7.037364
79	7.02027
80	7.003217
81	6.986204
82	6.969234
83	6.952305
84	8.235416
85	8.215412
86	8.195456
87	8.175548
88	8.155688
89	8.135876
90	8.116114
91	8.096398
92	8.076731
93	8.057112
94	8.03754
95	8.018015
96	7.998539
97	7.979109
98	9.259726
99	9.237233
100	9.214794
Maximum residue ----------	9.259726
Average residue ----------	4.92204

DAILY ACCUMULATED PESTICIDE RESIDUES---MULTP. APPL.

Chemical name ----------	RH-7592
Initial concentration (ppm) -----	1.3
Half-life ----------	285
A number of application --------	8
Application interval ----------	10
Length of simulation (day) -----	100

DAY	RESIDUE (PPM)
0	1.3
1	1.296842
2	1.293692
3	1.290549
4	1.287414
5	1.284287
6	1.281167
7	1.278055
8	1.274951
9	1.271854
10	2.568764
11	2.562524
12	2.5563
13	2.55009
14	2.543895
15	2.537716
16	2.531551
17	2.525402
18	2.519267
19	2.513148
20	3.807043
21	3.797795
22	3.78857
23	3.779367
24	3.770186
25	3.761028
26	3.751891
27	3.742778
28	3.733686
29	3.724616
30	5.015569
31	5.003386
32	4.991231
33	4.979107
34	4.967012
35	4.954947
36	4.94291
37	4.930904
38	4.918926
39	4.906976
40	6.195057
41	6.180009
42	6.164996
43	6.15002
44	6.135081
45	6.120178

46	6.105312
47	6.090481
48	6.075686
49	6.060927
50	7.346204
51	7.328359
52	7.310559
53	7.2928
54	7.275084
55	7.257412
56	7.239783
57	7.222197
58	7.204653
59	7.187151
60	8.469693
61	8.449119
62	8.428594
63	8.40812
64	8.387696
65	8.367321
66	8.346996
67	8.32672
68	8.306493
69	8.286315
70	9.566187
71	9.542949
72	9.519768
73	9.496642
74	9.473574
75	9.450561
76	9.427604
77	9.404704
78	9.381859
79	9.359069
80	9.336334
81	9.313655
82	9.291031
83	9.268461
84	9.245947
85	9.223487
86	9.201082
87	9.178732
88	9.156435
89	9.134192
90	9.112004
91	9.089871
92	9.067789
93	9.045763
94	9.023789
95	9.001869
96	8.980001
97	8.958188
98	8.936427
99	8.914719
100	8.893066
Maximum residue ----------	9.566187
Average residue ----------	6.2302

RIN 3477-95

EEB FENBUCONAZOLE REVIEW

Page____ is not included in this copy.

Pages 22 through 23 are not included.

The material not included contains the following type of information:

____ Identity of product inert ingredients.

____ Identity of product impurities.

____ Description of the product manufacturing process.

____ Description of quality control procedures.

____ Identity of the source of product ingredients.

____ Sales or other commercial/financial information.

__V__ A draft product label.

____ The product confidential statement of formula.

____ Information about a pending registration action.

____ FIFRA registration data.

____ The document is a duplicate of page(s) _____.

____ The document is not responsive to the request.

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