Data Evaluation Report of Water Monitoring Study

PMRA Submission Number {.....}

EPA MRID Number 46733905

Test material: Fipronil
IUPAC name: 5-amino-1-(2,6-dichloro-α,α,α-trifluoro-*p*-tolyl)-4-trifluoromethylsulfinylpyrazole-3-carbonitrile
CAS name: 5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-[(trifluoromethyl)sulfinyl]-1*H*-pyrazole-3-carbonitrile

Primary Reviewer: James Hetrick, Ph.D.
EPA

Signature:
Date: 4/29/08

Secondary Reviewer: Thuy Nguyen
EPA

Signature:
Date: 5/1/08

EPA PC Code: 129121

CITATION: Mosier, Dwight G. 2005. Fipronil Water Monitoring Study following Application of Chipco Topchoice® to a Golf Course Turf at Pickens, Arkansas. Sponsored by Bayer Crop Science, RTP, NC. Performed by Bayer Crop Science, Stillwell, KS, G & H Associates, Inc., Tillar AR, , AgVise Laboratories, Northward, ND, and Stone Environmental, Inc. Montpelier, VT. MRID 46733905.

Data Evaluation Report of Water Monitoring Study

PMRA Submission Number {.....} EPA MRID Number 46733905

EXECUTIVE SUMMARY:

The fipronil water monitoring study (MRID 46733905) provides acceptable data on the runoff potential of fipronil and its degradation products (MB46136, MB46513, and MB 46950) and its impact on fipronil residue occurrence in surface water from use of Chipco Topchoice® on a golf course in Pickens, AK. This study was submitted to fulfill a condition of registration regarding runoff concerns of fipronil residues from broadcast use of fipronil for control of fire ants. The registrant did not provide any concurrent biological monitoring of an adjacent aquatic environment to assess the impact of fipronil and its degradation products on aquatic invertebrates.

Fipronil was broadcast applied at a rate of 0.0125 lbs ai/A in 2003 and 2004 to a small watershed with a catchment pond on a golf course in Pickens, AK. Fipronil residue runoff was monitored surface water and sediments in the catchment pond and at the pond overflow outlet. Fipronil residues were detected in pond water and sediment samples for 180 days after fipronil treatment. The maximum fipronil residue concentration in pond water was 0.348 µg/L for fipronil, 0.052 µg/L for MB46136,0.046 µg/L for MB46513, and 0.020 µg/L for MB46950. The maximum fipronil residue concentration in sediment was 0.098 µg/kg for MB46136, 0.051 µg/kg /L for MB46513, and 0.191 µg/kg for MB46950.

I. MATERIALS AND METHODS

GUIDELINE FOLLOWED: The SETAC-Europe: Procedures for Assessing the Environmental Fate and Ecotoxicity of Pesticides (March 1995; pp. 1, 34) is not applicable.

COMPLIANCE: This study was conducted in compliance with USEPA FIFRA Good Laboratory Practices (40 CFR Part 160), which are consistent with the OECD Principles of GLP (p. 3). Signed and dated GLP, Data Confidentiality, Quality Assurance, and Certificate of Authenticity statements were provided (pp. 2-3, 5-).

A. MATERIALS:

The objective of this study is to assess the runoff potential of fipronil and its degradation products from golf course turf use of Chipco Topchoice® Insecticide for control of fire ants.

1. Study Description

The runoff monitoring study was conducted at a golf course near Pickens (Desha County), Arkansas. The site was 11.6 acres of established turf bordered by drainage furrows which flowed into a 0.75 acre pond **(pp 63-64)**. The pond was designed with an overflow outlet. The maximum slope of the watershed was 2%.

The soils on the site are classified as a Tutwiler (coarse-silty,mixed, Thermic Typic Hapludalfs) and Rilla (Fine silty,mixed, Thermic Typic Hapludalfs) series. Physicochemical properties for surface soils (0-6 inches) are shown in **Table I, pp 66.** The hydrologic grouping of soils in the watershed are C and D.

A rain gauge was used to collect on-site precipitation. The on-site precipitation accounted for 35 inches in 2002 and 18.20 inches in 2003
(Appendix E., pp 82 to 96).

2. Site Preparation and Maintenance

The turf on the site was maintained at 2 inch. The site was not irrigated. Fertilizer, Sencor, MSMA were applied to the test site in 2003 and 2004.

3. Pesticide Application

Chipco Topchoice® was broadcast applied on May 22, 2003 at 0.0121 lbs ai/A, and May 19, 2004 at 0.0134 lbs ai/A. The maximum label application rate of fipronil is 0.0125 lbs ai/A. Applications were made using a calibrated ATV rear mounted spreader. A 15 foot buffer was maintained around the pond and fipronil treated area.

4. Water Sampling Strategy

The drainage water quality is shown in **Table II, p 67**. Grab water samples were taken from 4 sampling points around the pond for a period of 6 months post-treatment with fipronil in 2003 and 2004. Water samples were taken from runoff areas into pond at 5 feet from the edge of the pond. Samples from the pond overflow outlet were taken when overflow water was available. Duplicate samples of pond water were taken 1day prior to treatment, daily 0 to 2 days post-treatment, 10 day intervals from 10 to 100 days post-treatment, 20 day intervals from 120 to 180 days post-treatment. Additionally, samples were taken within 24 hours after significant rainfall events ($\geq$ 0.5 inch). In 2004, pond water samples were taken 1, 2, 7, and 10 after each significant rainfall event. Sampling triggered by rain events in 2003 occurred on 11, 15, 21, 22, 25, 27, 52, 58, 69, 122, 123, 140, 156, 178 and 180 days post-treatment. In 2004, sampling triggered by rainfall events occurred on 9, 12, 15, 27, 34, 35, 38-42, 59, 67, 72, 78, 142-145, 153, 157, 161, 165, 166 and 175 days post-treatment. Water samples were stored refrigerated at the test site (35-40^{0}F) prior to transfer to the analytical facility.

Four random sediment samples were taken from the pond near the 4 water sampling points. Samples were taken prior to fipronil treatment, 90 days post-treatment, and 180 days post-treatment. The random samples at each sampling period were composited and then a subsample was taken. Subsamples were placed on blue ice and then transported to laboratory for frozen storage until chemical analysis.

5. Analytical

Water samples were stored frozen for a maximum time period of 180 days (**Appendix F, pp 98-107**). The source of storage stability data were referenced to Texas runoff study (MRID 46733902). The storage stability data indicate fipronil, MB46513, MB45950, and MB46136 were stable during a 25 month storage period **(Tables VIII and IX, pp 37).**

Residues of fipronil in water samples were analyzed using a LC/MS/MS method entitled Insecticides, Fipronil: Method of Analysis for Possible Residues of Fipronil, MB46513, MB45950, and MB46136 in Water- Revisions 5 (August 28, 2003). This method has a method detection limit (MDL) of 0.004 µg/L and limit of quantification (LOQ) of 0.010 µg/L. (Reviewer Note: The procedure requires filtration for cloudy extracts. The extracts are filtered through a nylon filtration disk after an acetonitrile extraction of surface water.)

Method verification in duplicate samples of drainage pond water with no fortification (controls) and duplicate samples of pond water fortified with 0.01 and 0.10 **ng/mL** showed recoveries of 92.4% for fipronil (n=4), 99.7% for MB46513 (n=4), 95.4% for MB45950 (n=4), and 95.9% for MB46136 (n=4) (**Table IV, pp 27**). Procedural recoveries were conducted using pond water at 0.100 ng/mL. Average recoveries were 86% (n=30) for fipronil, 90% (n=30) for MB46513, 89% (n=30) MB45950, and 94% (n=30) for MB46136 (**Table V, pp 27**). Field spike fortifications were conducted in fortified drainage canal water at the 0.02 µg/L and 0.20 µg/L. Fortification studies were conducted using 0, 0.01 ng/mL, and 0.10 ng/mL. Average recoveries ranged from 70 to 101% for fipronil, 74 to 108% for MB46513, 71 to 102% for MB45950, and 70 to 96 % for MB46136 (**Table VII, pp 29**).

Residues of fipronil in sediment samples were analyzed using a LC/MS/MS method entitled Method of Analysis for Possible Residues of Fipronil, MB46513, MB45950, and MB46136 in Sediment (November 19, 2003). This method has a method detection limit (MDL) of 0.030 µg/kg and limit of quantification (LOQ) of 0.100 µg/kg. Average procedural recoveries from fortified sediment at 0.10, 0.2, 1.00, and 2.00 µg/kg was 99% (n=6) for fipronil, 102% (n=6) for MB46513, 99% (n=6) for MB45950, and 104% (n=6) for MB46136 (**Table VII, pp 30**).

B. REPORTED RESULTS

1. Fipronil Residues in Water Samples

Fipronil residues were detected in pond waters and the pond outlet water. In 2003, the peak concentration in pond water was 0.348 µg/L for fipronil at 21 days post-treatment, 0.046 µg/L for MB46513 at 32 days post-treatment, 0.016 µg/L for MB45950 at 58 days post-treatment, and 0.044 µg/L at 27days post-treatment (**Table X, pp 38 to 44**). The pond overflow water had a maximum concentration of 0.271 µg/L of fipronil at 22 days post-treatment, 0.018 µg/L of MB46513 at 26 days post-treatment, 0.004 µg/L of MB45950 at 23 and 24 days post-treatment, and 0.042 µg/L of MB46136 at 22 days post-treatment (**Table XI, pp 45**).

In 2004, the peak concentration was 0.214 µg/L for fipronil at 13 days post-treatment, 0.033 ug/L for MB46513 at 29 days post-treatment, 0.065 ug/L for MB45950 at 90 days post-treatment, and 0.043 µg/L at 43 days post-treatment (**Table XIII, pp 47 to 54**). The pond overflow water had a maximum concentration of 0.168 µg/L of fipronil at 13 days post-treatment, 0.027 µg/L of MB46513 at 15 days post-treatment, 0.018 µg/L of MB45950 at 45 days post-treatment, and 0.065 µg/L of MB46136 at 45 days post-treatment (**Table XIV, pp 55**).

2. Fipronil Residues in Sediment Samples

Fipronil was not detected in sediment samples (**Table XII, pp 46 and Table XV, pp 56**). Fipronil degradation products, however, were detected in sediment samples. In 2003, the peak concentration in sediment was 0.051 µg/kg for MB46513 at 90 days post-treatment, 0.191 µg/kg for MB45950 at 90 days post-treatment, and 0.085 µg/kg for MB46136 at 90 days post-treatment (**Table XII, pp 46**). In 2004, the peak concentration in sediment was 0.065 µg/kg for MB45950 at 90 days post-treatment, and 0.098 µg/kg for MB46136 in a post-treatment sample (**Table XV, pp 56**).

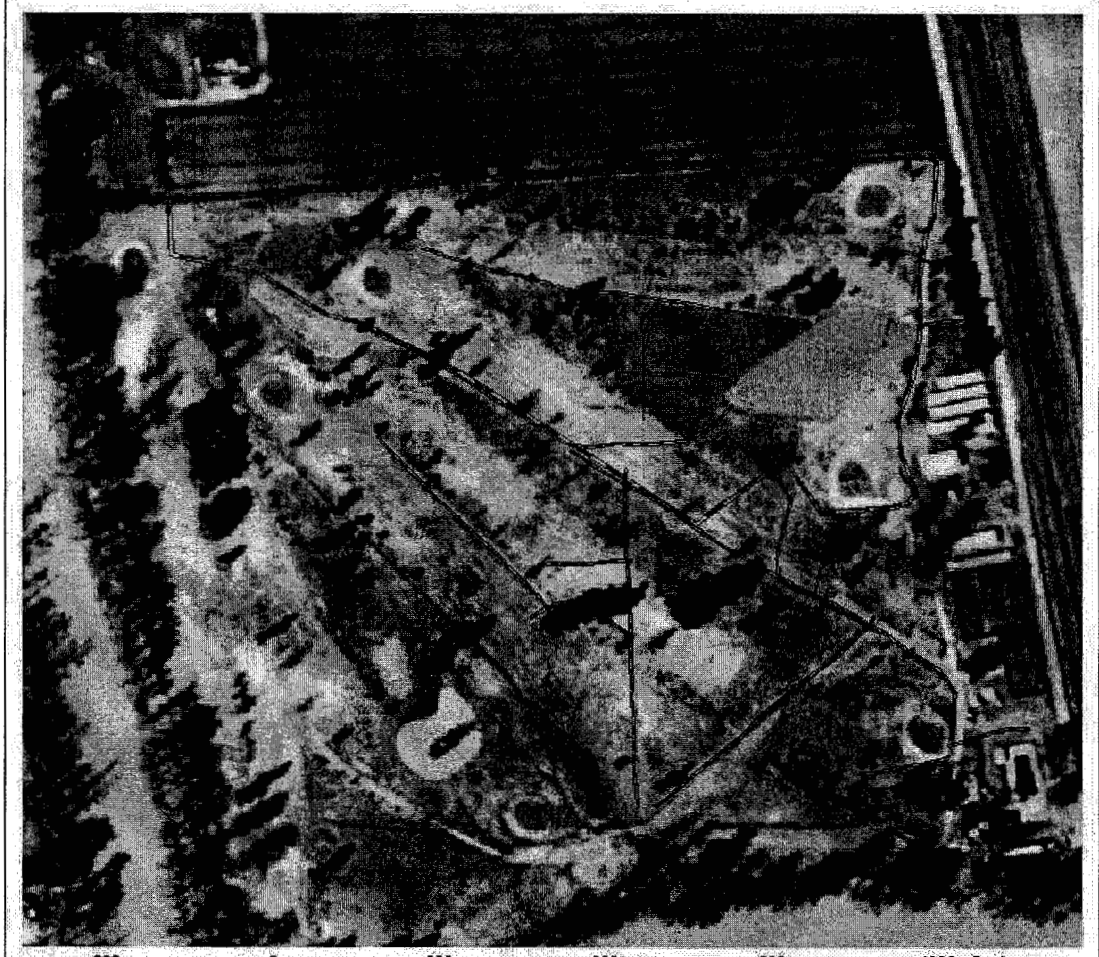
C. REVIEWER COMMENTS

1. The fipronil water monitoring study (MRID 46733905) provides supplemental data on the runoff potential of fipronil and its degradation products (MB46136, MB46513, and MB 46950) and its impact on estimated environmental concentrations in surface water from use of Chipco Topchoice® on a golf course in Pickens, AK. This study was submitted to fulfill a condition of registration for the broadcast use of fipronil to control fire ants. The registrant did not provide any concurrent biological monitoring of the aquatic environment to assess the impact of fipronil and its degradation products on aquatic invertebrates.

2. The registrant referenced a storage stability study in Texas runoff study (MRID 46733902). The Texas runoff study does not provide a detailed description of the storage stability study.

3. The registrant did not attempt to quantify the runoff potential of fipronil (% applied fipronil). There was no description of the geometry and volume of the pond to allow estimation of the mass of fipronil residues lost from runoff.

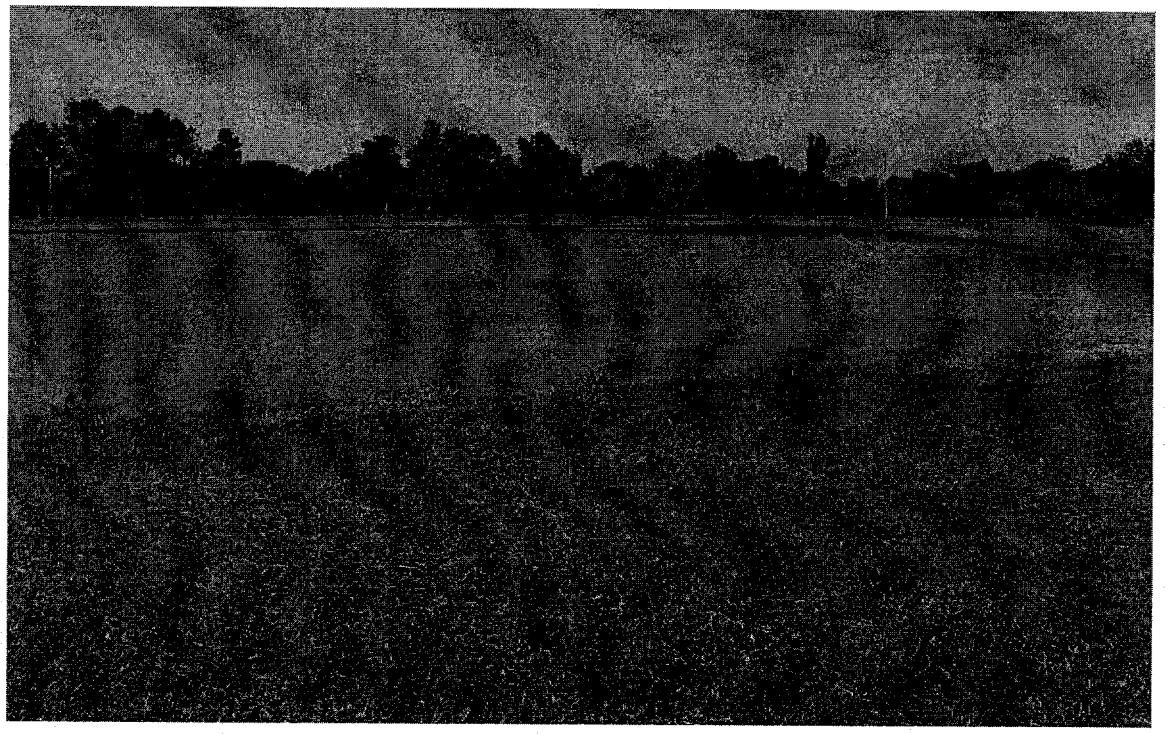
Golf Course: Chipco Topchoice Treatment Area



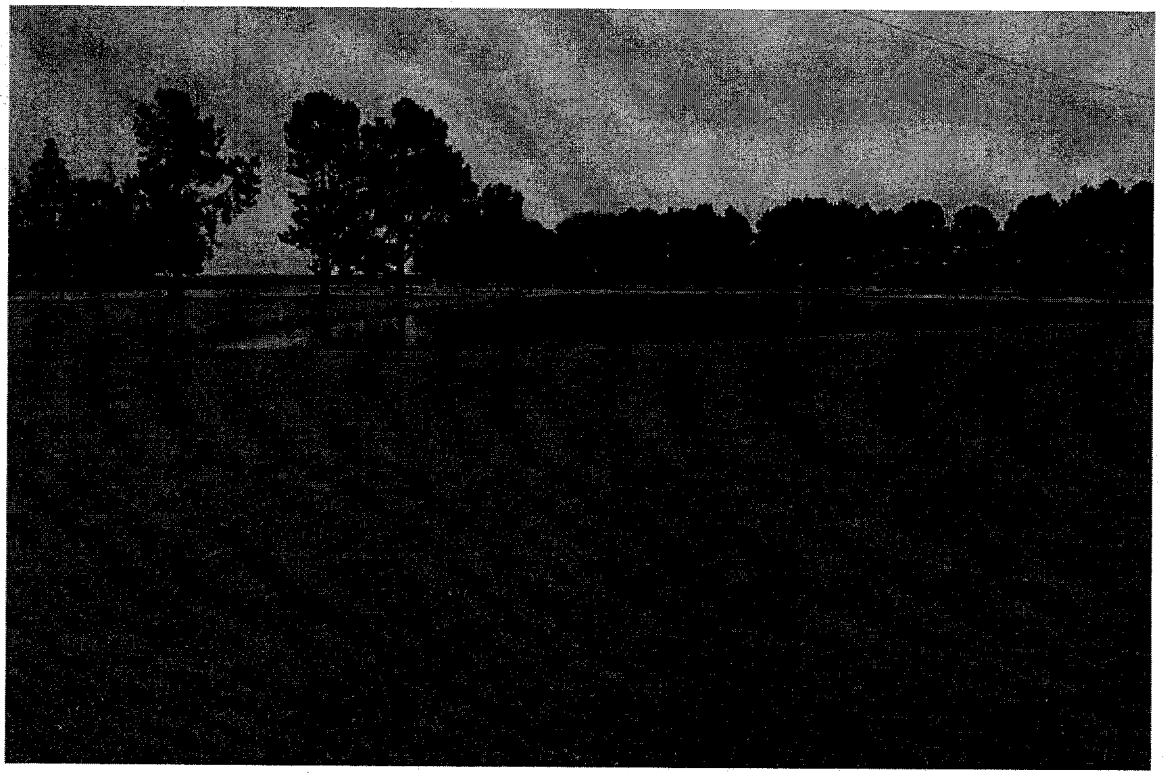
Walnut Lake Club; 03

Date: May 19, 2003
Field Name: Golf Course; 03
Location: Desha Co., Arkansas, United States
Name: Walnut Lake Club
Client Name: Bayer Crop Science
Chipco Topchoice Treatment Area Acres: 11.6
Ditches in Black

Pickens, Arkansas Golf Course Pond Overview



Turf Drainage Furrow (Swale)



Soil

On 27 November 2003, four soil samples were obtained from the top 6 inches of soil within the treatment area for characterization analysis. These samples were held at the Principle Field Investigators storage facility then shipped to Agvise Laboratories for analysis, where they were received on 09 September 2004. The results of the soil characterization analyses are listed in Table I. Copies of the laboratory reports are included in this Appendix.

Table I: Soil Characterization

Parameter	Sample							
	6531A-04-0870		6532A-04-0871		6533A-04-0872		6534A-04-0873	
Depth	6"		6"		6"		6"	
Sand (%)	34		26		28		26	
Silt (%)	46		47		36		46	
Clay (%)	20		27		36		28	
USDA Textural Class (hydrometer method)	Loam		Loam		Clay Loam		Clay Loam	
Bulk Density (disturbed) (gm/cc)	1.09		1.08		1.1		1.12	
Cation Exchange Capacity (meq/100 g)	8.9		13.7		17		14.4	
% moisture at 1/3 bar	22.8		28.9		31.1		30.2	
% moisture at 15 bar	8.4		11.4		14.5		12	
% Organic Matter	0.5		0.3		0.6		0.4	
pH (1:1 soil:water)	6.8		6.9		6.2		5.9	
Phosphorus (ppm)	18		15		14		16	
Nitrogen ((%)	0.054		0.05		0.064		0.057	
Soluble Salts (mmhos/cm)	0.24		0.22		0.12		0.08	
Base Saturation:	**%**	**ppm**	**%**	**ppm**	**%**	**ppm**	**%**	**ppm**
Calcium	42.8	761	45.3	1240	36.1	1230	38.1	1100
Magnesium	23.5	251	31.1	511	37.1	758	32.1	556
Sodium	2.8	57	1.9	59	2.1	82	1.8	60
Potassium	4	138	3.5	188	3.6	238	3.5	197
Hydrogen	27	24	18.1	25	21.1	36	24.4	35

Appendix E – Weather Data

Daily Climate Data - May 2003

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-May-03	NA	NA	NA	0.00	60	84
2-May-03	NA	NA	NA	0.00	64	81
3-May-03	NA	NA	NA	0.00	63	85
4-May-03	NA	NA	NA	0.00	64	80
5-May-03	NA	NA	NA	0.00	63	86
6-May-03	NA	NA	NA	2.46	69	80
7-May-03	NA	NA	NA	0.05	69	83
8-May-03	NA	NA	NA	0.00	73	87
9-May-03	NA	NA	NA	0.00	72	89
10-May-03	NA	NA	NA	0.00	72	87
11-May-03	NA	NA	NA	0.00	66	87
12-May-03	NA	NA	NA	0.00	50	77
13-May-03	NA	NA	NA	0.00	53	80
14-May-03	NA	NA	NA	0.01	54	76
15-May-03	NA	NA	NA	0.21	54	76
16-May-03	NA	NA	NA	0.00	54	87
17-May-03	NA	NA	NA	1.00	66	86
18-May-03	NA	NA	NA	0.00	65	76
19-May-03	NA	NA	NA	0.00	60	75
20-May-03	NA	NA	NA	0.00	60	80
21-May-03	NA	NA	NA	0.22	59	85
5/22/2003**	0	0.0	0.0	0.00	54	71
23-May-03	1	0.0	0.0	0.00	51	77
24-May-03	2	0.0	0.0	0.00	53	79
25-May-03	3	0.0	0.0	0.00	64	81
26-May-03	4	0.0	0.0	0.00	60	79
27-May-03	5	0.0	0.0	0.00	53	78
28-May-03	6	0.0	0.0	0.00	52	81
29-May-03	7	0.0	0.0	0.00	52	83
30-May-03	8	0.0	0.0	0.00	61	92
31-May-03	9		0.0	0.00	61	89
Total Irrigation & Rainfall		0.0	0.0	3.95		
29-Year Historical Rainfall (1974-2003)				4.83		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

** Date of Test Substance Application.

Daily Climate Data - June 2003

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Jun-03	10	0.0	0.00	0.00	66	91
2-Jun-03	11	0.0	0.67	0.00	65	80
3-Jun-03	12	0.0	0.01	0.00	60	84
4-Jun-03	13	0.0	0.01	0.00	58	86
5-Jun-03	14	0.0	0.00	0.00	62	80
6-Jun-03	15	0.0	0.49	"T"	60	79
7-Jun-03	16	0.0	0.00	0.00	65	84
8-Jun-03	17	0.0	0.00	0.00	61	85
9-Jun-03	18	0.0	0.00	0.00	55	83
10-Jun-03	19	0.0	0.00	0.00	67	87
11-Jun-03	20	0.0	0.00	1.00	71	88
12-Jun-03	21	0.0	3.32	2.20	65	90
13-Jun-03	22	0.0	2.39	0.30	67	86
14-Jun-03	23	0.0	0.00	0.02	65	84
15-Jun-03	24	0.0	0.00	0.90	69	80
16-Jun-03	25	0.0	0.47	0.05	70	85
17-Jun-03	26	0.0	0.00	1.10	69	87
18-Jun-03	27	0.0	2.52	1.15	68	85
19-Jun-03	28	0.0	0.12	0.40	70	89
20-Jun-03	29	0.0	0.00	0.00	67	87
21-Jun-03	30	0.0	0.00	0.00	68	86
22-Jun-03	31	0.0	0.00	0.00	66	86
23-Jun-03	32	0.0	0.00	0.00	65	91
24-Jun-03	33	0.0	0.00	0.00	69	92
25-Jun-03	34	0.0	0.00	0.00	74	94
26-Jun-03	35	0.0	0.00	0.00	68	90
27-Jun-03	36	0.0	0.01	0.00	63	83
28-Jun-03	37	0.0	0.00	0.00	59	84
29-Jun-03	38	0.0	0.00	0.00	70	91
30-Jun-03	39	0.0	0.00	"T"	64	90
Total Irrigation & Rainfall		0.0	10.01	7.12		
29-Year Historical Rainfall (1974-2003)				4.63		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

Daily Climate Data - July 2003

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Jul-03	40	0.0	0.03	0.00	64	86
2-Jul-03	41	0.0	0.00	0.00	70	87
3-Jul-03	42	0.0	0.00	0.00	70	90
4-Jul-03	43	0.0	0.01	0.00	70	93
5-Jul-03	44	0.0	0.16	0.20	70	92
6-Jul-03	45	0.0	0.00	0.20	71	85
7-Jul-03	46	0.0	0.00	0.00	72	92
8-Jul-03	47	0.0	0.00	0.00	71	91
9-Jul-03	48	0.0	0.00	0.00	71	91
10-Jul-03	49	0.0	0.01	"T"	72	90
11-Jul-03	50	0.0	0.00	0.00	71	84
12-Jul-03	51	0.0	0.00	0.00	69	94
13-Jul-03	52	0.0	1.34	0.00	70	89
14-Jul-03	53	0.0	0.01	0.00	69	90
15-Jul-03	54	0.0	0.00	0.00	73	91
16-Jul-03	55	0.0	0.00	0.00	71	92
17-Jul-03	56	0.0	0.00	0.00	73	94
18-Jul-03	57	0.0	0.00	0.00	73	96
19-Jul-03	58	0.0	0.56	0.70	70	90
20-Jul-03	59	0.0	0.00	0.00	70	85
21-Jul-03	60	0.0	0.00	0.00	71	90
22-Jul-03	61	0.0	0.00	0.00	75	92
23-Jul-03	62	0.0	0.00	0.00	70	89
24-Jul-03	63	0.0	0.00	0.00	60	87
25-Jul-03	64	0.0	0.00	0.00	62	87
26-Jul-03	65	0.0	0.00	0.00	62	90
27-Jul-03	66	0.0	0.00	0.00	72	91
28-Jul-03	67	0.0	0.02	0.00	72	94
29-Jul-03	68	0.0	0.00	0.00	74	89
30-Jul-03	69	0.0	1.21	0.00	74	95
31-Jul-03	70	0.0	0.12	0.40	70	90
Total Irrigation & Rainfall		0.0	3.47	1.50		
29-Year Historical Rainfall (1974-2003)				3.79		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

Daily Climate Data - August 2003

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Aug-03	71	0.0	0.02	0.00	71	93
2-Aug-03	72	0.0	0.01	0.00	73	94
3-Aug-03	73	0.0	0.02	0.12	72	89
4-Aug-03	74	0.0	0.00	0.00	72	93
5-Aug-03	75	0.0	0.01	0.00	71	93
6-Aug-03	76	0.0	0.04	0.10	71	85
7-Aug-03	7	0.0	0.02	0.00	71	92
8-Aug-03	78	0.0	0.01	0.00	65	89
9-Aug-03	79	0.0	0.00	0.00	66	92
10-Aug-03	80	0.0	0.00	0.00	67	91
11-Aug-03	81	0.0	0.01	0.00	68	91
12-Aug-03	82	0.0	0.05	0.00	70	89
13-Aug-03	83	0.0	0.02	0.08	69	87
14-Aug-03	84	0.0	0.00	0.00	70	88
15-Aug-03	85	0.0	0.00	0.00	69	90
16-Aug-03	86	0.0	0.00	0.00	73	94
17-Aug-03	87	0.0	0.00	0.00	71	96
18-Aug-03	88	0.0	0.00	0.00	71	96
19-Aug-03	89	0.0	0.09	0.00	74	99
20-Aug-03	90	0.0	0.00	0.00	75	100
21-Aug-03	91	0.0	0.00	0.00	74	98
22-Aug-03	92	0.0	0.00	0.00	74	97
23-Aug-03	93	0.0	0.00	0.00	70	95
24-Aug-03	94	0.0	0.00	0.00	71	96
25-Aug-03	95	0.0	0.01	0.00	73	98
26-Aug-03	96	0.0	0.01	0.00	75	96
27-Aug-03	97	0.0	0.08	"T"	73	95
28-Aug-03	98	0.0	0.01	0.00	71	95
29-Aug-03	99	0.0	0.00	0.00	70	90
30-Aug-03	100	0.0	0.00	0.00	73	93
31-Aug-03	101	0.0	0.00	0.00	71	92
Total Irrigation & Rainfall		0.0	0.41	0.30		
29-Year Historical Rainfall (1974-2003)				3.09		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

Daily Climate Data - September 2003

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Sep-03	102	0.0	0.00	0.15	70	92
2-Sep-03	103	0.0	0.00	1.50	72	85
3-Sep-03	104	0.0	0.00	0.10	73	86
4-Sep-03	105	0.0	0.00	0.00	70	90
5-Sep-03	106	0.0	0.00	0.00	62	89
6-Sep-03	107	0.0	0.00	0.00	60	83
7-Sep-03	108	0.0	0.00	0.00	60	89
8-Sep-03	109	0.0	0.00	0.00	62	90
9-Sep-03	110	0.0	0.01	0.00	63	89
10-Sep-03	111	0.0	0.00	0.00	65	89
11-Sep-03	112	0.0	0.00	0.00	70	90
12-Sep-03	113	0.0	0.00	0.50	69	92
13-Sep-03	114	0.0	0.00	0.80	71	83
14-Sep-03	115	0.0	0.00	0.00	60	85
15-Sep-03	116	0.0	0.00	0.00	61	85
16-Sep-03	117	0.0	0.00	0.00	56	83
17-Sep-03	118	0.0	0.00	0.00	51	88
18-Sep-03	119	0.0	0.00	0.00	54	88
19-Sep-03	120	0.0	0.00	0.00	60	88
20-Sep-03	121	0.0	0.00	0.00	58	87
21-Sep-03	122	0.0	0.81	0.00	56	86
22-Sep-03	123	0.0	1.18	1.50	56	74
23-Sep-03	124	0.0	0.00	0.00	61	82
24-Sep-03	125	0.0	0.00	0.00	64	83
25-Sep-03	126	0.0	0.00	0.00	60	86
26-Sep-03	127	0.0	0.00	0.00	61	87
27-Sep-03	128	0.0	0.00	0.00	64	87
28-Sep-03	129	0.0	0.00	0.00	50	87
29-Sep-03	130	0.0	0.00	0.00	44	76
30-Sep-03	131	0.0	0.00	0.00	44	76
Total Irrigation & Rainfall		0.0	2.00	4.55		
29-Year Historical Rainfall (1974-2003)				2.99		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

Daily Climate Data - October 2003

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Oct-03	132	0.0	0.00	0.00	41	76
2-Oct-03	133	0.0	0.00	0.00	41	72
3-Oct-03	134	0.0	0.00	0.00	43	73
4-Oct-03	135	0.0	0.00	0.00	40	74
5-Oct-03	136	0.0	0.00	0.00	52	82
6-Oct-03	137	0.0	0.00	0.00	59	75
7-Oct-03	138	0.0	0.12	0.00	59	80
8-Oct-03	139	0.0	0.01	0.00	59	79
9-Oct-03	140	0.0	0.48	0.00	64	80
10-Oct-03	141	0.0	0.17	0.47	59	81
11-Oct-03	142	0.0	0.00	0.00	60	77
12-Oct-03	143	0.0	0.00	0.00	61	79
13-Oct-03	144	0.0	0.01	0.00	61	76
14-Oct-03	145	0.0	0.00	0.05	61	76
15-Oct-03	146	0.0	0.00	0.00	51	75
16-Oct-03	147	0.0	0.00	0.00	45	78
17-Oct-03	148	0.0	0.00	0.00	47	76
18-Oct-03	149	0.0	0.01	0.00	42	68
19-Oct-03	150	0.0	0.00	0.00	43	81
20-Oct-03	151	0.0	0.00	0.00	43	82
21-Oct-03	152	0.0	0.00	0.00	51	88
22-Oct-03	153	0.0	0.00	0.00	51	88
23-Oct-03	154	0.0	0.00	0.00	49	89
24-Oct-03	155	0.0	0.00	0.00	49	89
25-Oct-03	156	0.0	0.78	0.00	57	92
26-Oct-03	157	0.0	0.22	0.60	50	81
27-Oct-03	158	0.0	0.00	0.00	43	60
28-Oct-03	159	0.0	0.00	0.00	41	62
29-Oct-03	160	0.0	0.00	0.00	43	75
30-Oct-03	161	0.0	0.00	0.00	46	78
31-Oct-03	162	0.0	0.00	0.00	58	80
Total Irrigation & Rainfall		0.0	1.80	1.12		
29-Year Historical Rainfall (1974-2003)				4.20		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

Daily Climate Data - November 2003

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Nov-03	163	0.0	0.00	0.00	61	85
2-Nov-03	164	0.0	0.00	0.00	60	83
3-Nov-03	165	0.0	0.00	0.00	56	83
4-Nov-03	166	0.0	0.00	0.00	56	80
5-Nov-03	167	0.0	0.00	0.00	57	85
6-Nov-03	168	0.0	0.00	0.00	55	84
7-Nov-03	169	0.0	0.13	"T"	46	60
8-Nov-03	170	0.0	0.01	0.10	44	48
9-Nov-03	171	0.0	0.08	0.00	44	60
10-Nov-03	172	0.0	0.00	0.00	46	68
11-Nov-03	173	0.0	0.00	0.00	46	72
12-Nov-03	174	0.0	0.31	0.00	61	75
13-Nov-03	175	0.0	0.00	0.23	48	78
14-Nov-03	176	0.0	0.00	0.00	43	54
15-Nov-03	177	0.0	0.82	0.00	43	59
16-Nov-03	178	0.0	1.43	0.80	52	74
17-Nov-03	179	0.0	0.31	0.14	62	74
11/18/2003**	180	0.0	1.72	0.00	64	74
19-Nov-03	NA	NA	NA	0.60	45	75
20-Nov-03	NA	NA	NA	0.00	43	75
21-Nov-03	NA	NA	NA	0.00	39	73
22-Nov-03	NA	NA	NA	0.00	51	73
23-Nov-03	NA	NA	NA	0.00	58	78
24-Nov-03	NA	NA	NA	0.00	28	74
25-Nov-03	NA	NA	NA	0.00	29	50
26-Nov-03	NA	NA	NA	0.00	29	52
27-Nov-03	NA	NA	NA	0.75	44	66
28-Nov-03	NA	NA	NA	0.20	36	72
29-Nov-03	NA	NA	NA	0.00	24	57
30-Nov-03	NA	NA	NA	0.00	24	53
Total Irrigation & Rainfall		0.0	4.81	2.82		
29-Year Historical Rainfall (1974-2003)				4.94		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

** Date Sampling Terminated for 2003.

Daily Climate Data - May 2004

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-May-04	NA	NA	NA	0.00	61	68
2-May-04	NA	NA	NA	0.00	49	82
3-May-04	NA	NA	NA	0.00	44	70
4-May-04	NA	NA	NA	0.00	48	77
5-May-04	NA	NA	NA	0.00	52	81
6-May-04	NA	NA	NA	0.00	56	85
7-May-04	NA	NA	NA	0.00	59	84
8-May-04	NA	NA	NA	0.00	59	85
9-May-04	NA	NA	NA	0.00	62	85
10-May-04	NA	NA	NA	0.00	64	84
11-May-04	NA	NA	NA	0.00	66	85
12-May-04	NA	NA	NA	0.00	66	72
13-May-04	NA	NA	NA	1.86	64	84
14-May-04	NA	NA	NA	0.00	64	73
15-May-04	NA	NA	NA	0.60	61	82
16-May-04	NA	NA	NA	0.00	61	73
17-May-04	NA	NA	NA	0.63	61	80
18-May-04	NA	NA	NA	0.00	64	80
5/19/2004**	0	0.0	0.00	0.00	64	84
20-May-04	1	0.0	0.00	0.00	67	87
21-May-04	2	0.0	0.00	0.00	65	85
22-May-04	3	0.0	0.00	0.00	68	87
23-May-04	4	0.0	0.00	0.00	68	86
24-May-04	5	0.0	0.00	0.00	67	87
25-May-04	6	0.0	0.00	0.00	67	87
26-May-04	7	0.0	0.00	0.00	71	87
27-May-04	8	0.0	0.00	0.00	70	86
28-May-04	9	0.0	1.52	0.00	70	83
29-May-04	10	0.0	0.00	0.00	70	88
30-May-04	11	0.0	0.00	0.00	72	88
31-May-04	12	0.0	1.42	4.80	65	88
Total Irrigation & Rainfall		0.0	2.94	7.89		
29-Year Historical Rainfall (1975-2004)				4.85		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

** Date of Test Substance Application.

Daily Climate Data - June 2004

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Jun-04	13	0.0	0.00	0.00	62	88
2-Jun-04	14	0.0	0.00	0.03	61	88
3-Jun-04	15	0.0	0.51	0.51	65	87
4-Jun-04	16	0.0	0.00	0.00	64	84
5-Jun-04	17	0.0	0.00	0.00	62	90
6-Jun-04	18	0.0	0.00	0.00	65	90
7-Jun-04	19	0.0	0.00	0.00	72	82
8-Jun-04	20	0.0	0.00	0.00	62	88
9-Jun-04	21	0.0	0.00	0.00	68	90
10-Jun-04	22	0.0	0.00	0.00	73	89
11-Jun-04	23	0.0	0.00	0.00	73	91
12-Jun-04	24	0.0	0.00	0.00	74	90
13-Jun-04	25	0.0	0.00	0.00	74	91
14-Jun-04	26	0.0	0.00	0.00	70	88
15-Jun-04	27	0.0	1.22	0.00	71	83
16-Jun-04	28	0.0	0.00	2.34	70	91
17-Jun-04	29	0.0	0.00	0.00	71	87
18-Jun-04	30	0.0	0.00	1.02	72	86
19-Jun-04	31	0.0	0.00	0.00	73	92
20-Jun-04	32	0.0	0.00	0.00	70	90
21-Jun-04	33	0.0	0.00	0.00	70	88
22-Jun-04	34	0.0	1.61	0.72	68	89
23-Jun-04	35	0.0	1.10	0.00	66	86
24-Jun-04	36	0.0	0.00	0.53	70	85
25-Jun-04	37	0.0	0.11	0.00	70	76
26-Jun-04	38	0.0	0.42	0.00	69	81
27-Jun-04	39	0.0	0.82	0.00	68	79
28-Jun-04	40	0.0	1.11	0.45	70	84
29-Jun-04	41	0.0	0.43	0.00	70	86
30-Jun-04	42	0.0	0.91	0.30	67	85
Total Irrigation & Rainfall		0.0	8.24	5.90		
29-Year Historical Rainfall (1975-2004)				4.55		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

Daily Climate Data - July 2004

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Jul-04	43	0.0	0.20	0.00	71	79
2-Jul-04	44	0.0	0.00	1.27	68	82
3-Jul-04	45	0.0	0.06	0.15	61	85
4-Jul-04	46	0.0	0.00	0.00	71	82
5-Jul-04	47	0.0	0.00	0.00	74	91
6-Jul-04	48	0.0	0.40	0.00	72	90
7-Jul-04	49	0.0	0.00	0.00	74	90
8-Jul-04	50	0.0	0.00	0.00	72	92
9-Jul-04	51	0.0	0.00	0.00	70	90
10-Jul-04	52	0.0	0.00	0.28	69	90
11-Jul-04	53	0.0	0.00	0.00	72	91
12-Jul-04	54	0.0	0.00	0.00	72	91
13-Jul-04	55	0.0	0.00	0.00	73	95
14-Jul-04	56	0.0	0.00	0.00	74	96
15-Jul-04	57	0.0	0.00	0.00	72	94
16-Jul-04	58	0.0	0.00	1.20	71	95
17-Jul-04	59	0.0	1.13	0.00	72	89
18-Jul-04	60	0.0	0.00	0.00	72	89
19-Jul-04	61	0.0	0.00	0.00	64	86
20-Jul-04	62	0.0	0.00	0.00	66	84
21-Jul-04	63	0.0	0.00	0.00	68	90
22-Jul-04	64	0.0	0.00	0.00	67	88
23-Jul-04	65	0.0	0.01	0.00	72	94
24-Jul-04	66	0.0	0.00	0.00	73	93
25-Jul-04	67	0.0	0.82	0.00	71	90
26-Jul-04	68	0.0	0.16	2.02	66	93
27-Jul-04	69	0.0	0.01	0.00	60	82
28-Jul-04	70	0.0	0.00	0.00	64	85
29-Jul-04	71	0.0	0.00	0.00	65	89
30-Jul-04	72	0.0	0.96	0.00	70	90
31-Jul-04	73	0.0	0.00	0.00	72	90
Total Irrigation & Rainfall		0.0	3.75	4.92		
29-Year Historical Rainfall (1975-2004)				3.81		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

Daily Climate Data - August 2004

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Aug-04	74	0.0	0.00	0.00	72	91
2-Aug-04	75	0.0	0.00	0.00	69	90
3-Aug-04	76	0.0	0.00	0.00	66	92
4-Aug-04	77	0.0	0.00	0.00	70	93
5-Aug-04	78	0.0	0.42	0.00	68	93
6-Aug-04	79	0.0	0.00	0.00	65	87
7-Aug-04	80	0.0	0.00	0.00	61	84
8-Aug-04	81	0.0	0.00	0.00	61	89
9-Aug-04	82	0.0	0.00	0.00	60	90
10-Aug-04	83	0.0	0.00	0.00	67	91
11-Aug-04	84	0.0	0.00	0.00	65	92
12-Aug-04	85	0.0	0.00	0.00	64	79
13-Aug-04	86	0.0	0.00	0.00	55	89
14-Aug-04	87	0.0	0.00	0.00	53	82
15-Aug-04	88	0.0	0.00	0.00	52	82
16-Aug-04	89	0.0	0.00	0.00	56	84
17-Aug-04	90	0.0	0.00	0.00	58	84
18-Aug-04	91	0.0	0.00	0.00	62	91
19-Aug-04	92	0.0	0.00	0.00	65	90
20-Aug-04	93	0.0	0.00	0.00	67	84
21-Aug-04	94	0.0	0.00	0.00	60	90
22-Aug-04	95	0.0	0.00	0.00	70	88
23-Aug-04	96	0.0	0.00	0.00	71	87
24-Aug-04	97	0.0	0.01	0.00	71	90
25-Aug-04	98	0.0	0.00	0.00	72	89
26-Aug-04	99	0.0	0.00	0.00	75	92
27-Aug-04	100	0.0	0.00	0.00	74	92
28-Aug-04	101	0.0	0.01	0.00	73	91
29-Aug-04	102	0.0	0.00	0.00	68	93
30-Aug-04	103	0.0	0.00	0.00	66	85
31-Aug-04	104	0.0	0.00	0.00	61	84
Total Irrigation & Rainfall		0.0	0.44	0.00		
29-Year Historical Rainfall (1975-2004)				2.85		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

Daily Climate Data - September 2004

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Sep-04	105	0.0	0.00	0.00	64	89
2-Sep-04	106	0.0	0.00	0.00	61	87
3-Sep-04	107	0.0	0.01	0.00	66	86
4-Sep-04	108	0.0	0.00	0.00	62	89
5-Sep-04	109	0.0	0.00	0.00	69	90
6-Sep-04	110	0.0	0.00	0.00	69	91
7-Sep-04	111	0.0	0.00	0.00	69	86
8-Sep-04	112	0.0	0.00	0.00	62	92
9-Sep-04	113	0.0	0.00	0.00	61	90
10-Sep-04	114	0.0	0.00	0.00	60	88
11-Sep-04	115	0.0	0.00	0.00	63	88
12-Sep-04	116	0.0	0.00	0.00	61	90
13-Sep-04	117	0.0	0.00	0.00	71	93
14-Sep-04	118	0.0	0.00	0.00	71	91
15-Sep-04	119	0.0	0.00	0.00	67	91
16-Sep-04	120	0.0	0.00	0.00	68	91
17-Sep-04	121	0.0	0.00	0.00	67	91
18-Sep-04	122	0.0	0.00	0.00	58	93
19-Sep-04	123	0.0	0.00	0.00	58	88
20-Sep-04	124	0.0	0.00	0.00	61	93
21-Sep-04	125	0.0	0.00	0.00	54	86
22-Sep-04	126	0.0	0.00	0.00	54	86
23-Sep-04	127	0.0	0.04	0.10	65	88
24-Sep-04	128	0.0	0.00	0.00	65	83
25-Sep-04	129	0.0	0.00	0.00	68	84
26-Sep-04	130	0.0	0.00	0.00	65	86
27-Sep-04	131	0.0	0.00	0.00	57	84
28-Sep-04	132	0.0	0.00	0.00	54	86
29-Sep-04	133	0.0	0.00	0.00	56	82
30-Sep-04	134	0.0	0.00	0.00	54	83
Total Irrigation & Rainfall		0.0	0.05	0.10		
29-Year Historical Rainfall (1975-2004)				2.87		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

Daily Climate Data - October 2004

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Oct-04	135	0.0	0.00	0.00	54	85
2-Oct-04	136	0.0	0.00	0.00	62	87
3-Oct-04	137	0.0	0.00	0.00	61	87
4-Oct-04	138	0.0	0.00	0.00	54	84
5-Oct-04	139	0.0	0.00	0.00	57	82
6-Oct-04	140	0.0	0.00	0.00	58	83
7-Oct-04	141	0.0	0.00	0.00	58	88
8-Oct-04	142	0.0	1.87	0.02	66	87
9-Oct-04	143	0.0	1.15	2.30	61	67
10-Oct-04	144	0.0	4.96	2.05	62	65
11-Oct-04	145	0.0	0.44	0.00	63	67
12-Oct-04	146	0.0	0.00	0.00	63	77
13-Oct-04	147	0.0	0.00	0.00	50	73
14-Oct-04	148	0.0	0.00	0.00	47	74
15-Oct-04	149	0.0	0.00	0.00	49	61
16-Oct-04	150	0.0	0.00	0.00	54	72
17-Oct-04	151	0.0	0.37	0.00	54	71
18-Oct-04	152	0.0	0.00	"T"	52	82
19-Oct-04	153	0.0	0.52	0.00	71	87
20-Oct-04	154	0.0	0.01	0.80	69	85
21-Oct-04	155	0.0	0.00	0.00	63	74
22-Oct-04	156	0.0	0.02	0.00	63	86
23-Oct-04	157	0.0	0.92	0.00	60	84
24-Oct-04	158	0.0	0.02	0.00	60	82
25-Oct-04	159	0.0	0.00	0.00	62	83
26-Oct-04	160	0.0	0.00	0.60	68	83
27-Oct-04	161	0.0	0.47	0.00	67	84
28-Oct-04	162	0.0	0.01	"T"	68	85
29-Oct-04	163	0.0	0.00	0.45	67	85
30-Oct-04	164	0.0	0.30	0.00	65	85
31-Oct-04	165	0.0	2.65	0.00	66	83
Total Irrigation & Rainfall		0.0	13.71	6.22		
29-Year Historical Rainfall (1975-2004)				4.22		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

Daily Climate Data - November 2004

Date	Days After Application	On-Site Irrigation (inches)	On-Site Precipitation (inches)	NOAA Weather Data*		
				Precipitation (inches)	Minimum Temperature (°F)	Maximum Temperature (°F)
1-Nov-04	166	0.0	0.96	0.43	67	85
2-Nov-04	167	0.0	0.11	2.25	58	79
3-Nov-04	168	0.0	0.01	"T"	53	58
4-Nov-04	169	0.0	0.01	0.00	49	59
5-Nov-04	170	0.0	0.00	0.00	38	59
6-Nov-04	171	0.0	0.00	0.00	42	75
7-Nov-04	172	0.0	0.00	0.00	40	75
8-Nov-04	173	0.0	0.00	0.00	51	80
9-Nov-04	174	0.0	0.00	0.00	41	80
10-Nov-04	175	0.0	1.09	0.00	45	69
11-Nov-04	176	0.0	0.00	0.60	44	70
12-Nov-04	177	0.0	0.00	0.00	41	65
13-Nov-04	178	0.0	0.00	0.00	43	55
14-Nov-04	179	0.0	0.00	0.00	45	62
11/15/2004**	180	0.0	0.00	0.00	51	63
16-Nov-04	NA	NA	NA	0.00	49	66
17-Nov-04	NA	NA	NA	0.00	50	73
18-Nov-04	NA	NA	NA	0.00	51	63
19-Nov-04	NA	NA	NA	0.00	53	65
20-Nov-04	NA	NA	NA	0.00	52	71
21-Nov-04	NA	NA	NA	2.06	52	71
22-Nov-04	NA	NA	NA	0.00	57	60
23-Nov-04	NA	NA	NA	0.37	58	61
24-Nov-04	NA	NA	NA	1.65	59	68
25-Nov-04	NA	NA	NA	0.00	32	68
26-Nov-04	NA	NA	NA	0.00	32	54
27-Nov-04	NA	NA	NA	0.45	39	60
28-Nov-04	NA	NA	NA	0.00	34	61
29-Nov-04	NA	NA	NA	0.00	46	50
30-Nov-04	NA	NA	NA	0.00	46	52
Total Irrigation & Rainfall		0.0	2.18	7.81		
29-Year Historical Rainfall (1975-2004)				4.95		

* Obtained from NOAA Weather Station (34900), Monticello, AR, about 23.4 miles from the test site.

** Date Sampling Terminated for 2004.

Water

Prior to application in 2003, two, 5-gallon bulk water samples were collected from the pond in the runoff area. These samples were collected on 22 May 2003 then shipped to Bayer CropScience on 3 June 2003. Two additional 5-gallon bulk water samples were collected on 13 May 2004 and were delivered on 20 May 2004 to Bayer CropScience at Stilwell, KS by the Study Director. A subsample was taken and forwarded to Agvise Laboratories on 8 September 2004 for characterization. The results are listed in Table II. A copy of the laboratory report is included in the Appendix.

Table II: Water Characterization

	Sample ID					
Parameter	**A**	**B**	**C**	**D**	**E**	**F**
pH	6.5	6.6	6.9	7.0	7.3	7.0
Calcium (ppm)	2.3	3.1	2.8	2.4	3.1	1.9
Magnesium (ppm)	1.1	1.3	1.3	1.1	1.3	0.8
Sodium (ppm)	2.7	3.4	3.1	2.8	3.5	1.7
Hardness mq equivalent CaC03/L	10.0	13.0	12.0	11.0	13.0	8.0
Conductivity (mmhos/cm)	0.1	0.1	0.1	0.1	0.1	0.0
Sodium Adsorption Ratio	0.4	0.4	0.4	0.4	0.4	0.3
Total Dissolved Solids (ppm)	20.0	28.0	30.0	34.0	18.0	32.0
Turbidity (NTU)	44.4	30.4	33.7	41.9	31.4	36.1

2003 Critical Dates for Water Samples Analyzed for Fipronil-Related Residues

Sample ID RAFIX019-	Sampling Event	Sampling Date Date	Shipping Date	Analysis Date
5001A	Pre-Treatment	22-May-03	3-Jun-03	28-Aug-03
5002A	Pre-Treatment	22-May-03	3-Jun-03	28-Aug-03
5003A	Pre-Treatment	22-May-03	3-Jun-03	28-Aug-03
5004A	Pre-Treatment	22-May-03	3-Jun-03	28-Aug-03
5531A	Pre-Treatment	22-May-03	3-Jun-03	2/25/2004**
5532A	Pre-Treatment	22-May-03	3-Jun-03	2/25/2004**
5533A	Pre-Treatment	22-May-03	3-Jun-03	2/25/2004**
5534A	Pre-Treatment	22-May-03	3-Jun-03	2/25/2004**
5005A	0	22-May-03	3-Jun-03	28-Aug-03
5006A	0	22-May-03	3-Jun-03	28-Aug-03
5007A	0	22-May-03	3-Jun-03	28-Aug-03
5008A	0	22-May-03	3-Jun-03	28-Aug-03
5049A	11	2-Jun-03	3-Jun-03	29-Aug-03
5050A	11	2-Jun-03	3-Jun-03	29-Aug-03
5051A	11	2-Jun-03	3-Jun-03	29-Aug-03
5052A	11	2-Jun-03	3-Jun-03	29-Aug-03
5053A	12	3-Jun-03	3-Jun-03	29-Aug-03
5054A	12	3-Jun-03	3-Jun-03	29-Aug-03
5055A	12	3-Jun-03	3-Jun-03	29-Aug-03
5056B	12	3-Jun-03	3-Jun-03	29-Aug-03
5065A	15	6-Jun-03	1-Jul-03	29-Aug-03
5066A	15	6-Jun-03	1-Jul-03	29-Aug-03
5067A	15	6-Jun-03	1-Jul-03	29-Aug-03
5068A	15	6-Jun-03	1-Jul-03	29-Aug-03
5069A	16	7-Jun-03	1-Jul-03	29-Aug-03
5070A	16	7-Jun-03	1-Jul-03	29-Aug-03
5071A	16	7-Jun-03	1-Jul-03	29-Aug-03
5072A	16	7-Jun-03	1-Jul-03	29-Aug-03
5077A	18	9-Jun-03	1-Jul-03	28-Mar-04
5078A	18	9-Jun-03	1-Jul-03	28-Mar-04
5079A	18	9-Jun-03	1-Jul-03	28-Mar-04
5080A	18	9-Jun-03	1-Jul-03	28-Mar-04
5081A	19	10-Jun-03	1-Jul-03	28-Mar-04
5082A	19	10-Jun-03	1-Jul-03	28-Mar-04
5083A	19	10-Jun-03	1-Jul-03	28-Mar-04
5084A	19	10-Jun-03	1-Jul-03	28-Mar-04
5085A	20	11-Jun-03	1-Jul-03	28-Mar-04
5086A	20	11-Jun-03	1-Jul-03	28-Mar-04
5087A	20	11-Jun-03	1-Jul-03	28-Mar-04
5088A	20	11-Jun-03	1-Jul-03	28-Mar-04
5089A	21	12-Jun-03	1-Jul-03	9-Sep-03
5090A	21	12-Jun-03	1-Jul-03	9-Sep-03

** Sediment Samples

2003 Critical Dates for Water Samples Analyzed for Fipronil-Related Residues

Sample ID RAFIX019-	Sampling Event	Sampling Date Date	Shipping Date	Analysis Date
5090A	21	12-Jun-03	1-Jul-03	9-Sep-03
5091A	21	12-Jun-03	1-Jul-03	9-Sep-03
5092A	21	12-Jun-03	1-Jul-03	9-Sep-03
5447A	21	12-Jun-03	1-Jul-03	12/10/2003*
5093A	22	13-Jun-03	1-Jul-03	9-Sep-03
5094A	22	13-Jun-03	1-Jul-03	9-Sep-03
5095A	22	13-Jun-03	1-Jul-03	9-Sep-03
5096A	22	13-Jun-03	1-Jul-03	9-Sep-03
5448A	22	13-Jun-03	1-Jul-03	12/10/2003*
5097A	23	14-Jun-03	1-Jul-03	9-Sep-03
5098A	23	14-Jun-03	1-Jul-03	9-Sep-03
5099A	23	14-Jun-03	1-Jul-03	9-Sep-03
5100A	23	14-Jun-03	1-Jul-03	9-Sep-03
5449A	23	14-Jun-03	1-Jul-03	12/10/2003*
5105A	25	16-Jun-03	1-Jul-03	22-Sep-03
5106A	25	16-Jun-03	1-Jul-03	22-Sep-03
5107A	25	16-Jun-03	1-Jul-03	22-Sep-03
5108A	25	16-Jun-03	1-Jul-03	22-Sep-03
5109A	26	17-Jun-03	1-Jul-03	22-Sep-03
5110A	26	17-Jun-03	1-Jul-03	22-Sep-03
5111A	26	17-Jun-03	1-Jul-03	22-Sep-03
5112A	26	17-Jun-03	1-Jul-03	22-Sep-03
5452A	26	17-Jun-03	1-Jul-03	12/10/2003*
5113A	27	18-Jun-03	1-Jul-03	22-Sep-03
5114A	27	18-Jun-03	1-Jul-03	22-Sep-03
5115A	27	18-Jun-03	1-Jul-03	22-Sep-03
5116A	27	18-Jun-03	1-Jul-03	22-Sep-03
5117A	28	19-Jun-03	1-Jul-03	22-Sep-03
5119A	28	19-Jun-03	1-Jul-03	22-Sep-03
5120A	28	19-Jun-03	1-Jul-03	22-Sep-03
5121A	29	20-Jun-03	1-Jul-03	10-Dec-03
5122A	29	20-Jun-03	1-Jul-03	10-Dec-03
5123A	29	20-Jun-03	1-Jul-03	10-Dec-03
5124A	29	20-Jun-03	1-Jul-03	10-Dec-03
5133A	32	23-Jun-03	1-Jul-03	10-Dec-03
5134A	32	23-Jun-03	1-Jul-03	10-Dec-03
5135A	32	23-Jun-03	1-Jul-03	10-Dec-03
5136A	32	23-Jun-03	1-Jul-03	10-Dec-03
5137A	33	24-Jun-03	1-Jul-03	10-Dec-03
5138A	33	24-Jun-03	1-Jul-03	10-Dec-03
5139A	33	24-Jun-03	1-Jul-03	10-Dec-03
5140A	33	24-Jun-03	1-Jul-03	10-Dec-03

* Pond Overflow

2003 Critical Dates for Water Samples Analyzed for Fipronil-Related Residues

Sample ID RAFIX019-	Sampling Event	Sampling Date Date	Shipping Date	Analysis Date
5141A	34	25-Jun-03	1-Jul-03	10-Dec-03
5142A	34	25-Jun-03	1-Jul-03	10-Dec-03
5143A	34	25-Jun-03	1-Jul-03	10-Dec-03
5144A	34	25-Jun-03	1-Jul-03	10-Dec-03
5145A	35	26-Jun-03	1-Jul-03	10-Dec-03
5146A	35	26-Jun-03	1-Jul-03	10-Dec-03
5147A	35	26-Jun-03	1-Jul-03	10-Dec-03
5148A	35	26-Jun-03	1-Jul-03	10-Dec-03
5149A	36	27-Jun-03	1-Jul-03	10-Dec-03
5150A	36	27-Jun-03	1-Jul-03	10-Dec-03
5151A	36	27-Jun-03	1-Jul-03	10-Dec-03
5152A	36	27-Jun-03	1-Jul-03	10-Dec-03
5161A	39	30-Jun-03	1-Jul-03	10-Dec-03
5162A	39	30-Jun-03	1-Jul-03	10-Dec-03
5163A	39	30-Jun-03	1-Jul-03	10-Dec-03
5164A	39	30-Jun-03	1-Jul-03	10-Dec-03
5165A	40	1-Jul-03	1-Jul-03	10-Dec-03
5166A	40	1-Jul-03	1-Jul-03	10-Dec-03
5177A	43	4-Jul-03	19-Aug-03	29-Oct-03
5178A	43	4-Jul-03	19-Aug-03	29-Oct-03
5179A	43	4-Jul-03	19-Aug-03	29-Oct-03
5180A	43	4-Jul-03	19-Aug-03	29-Oct-03
5217A	53	14-Jul-03	19-Aug-03	29-Oct-03
5218A	53	14-Jul-03	19-Aug-03	29-Oct-03
5219A	53	14-Jul-03	19-Aug-03	29-Oct-03
5220A	53	14-Jul-03	19-Aug-03	29-Oct-03
5221A	54	15-Jul-03	19-Aug-03	29-Oct-03
5222A	54	15-Jul-03	19-Aug-03	29-Oct-03
5223A	54	15-Jul-03	19-Aug-03	29-Oct-03
5224A	54	15-Jul-03	19-Aug-03	29-Oct-03
5237A	58	19-Jul-03	19-Aug-03	29-Oct-03
5238A	58	19-Jul-03	19-Aug-03	29-Oct-03
5239A	58	19-Jul-03	19-Aug-03	29-Oct-03
5240A	58	19-Jul-03	19-Aug-03	29-Oct-03
5285A	70	31-Jul-03	19-Aug-03	29-Oct-03
5286A	70	31-Jul-03	19-Aug-03	29-Oct-03
5287A	70	31-Jul-03	19-Aug-03	29-Oct-03
5288A	70	31-Jul-03	19-Aug-03	29-Oct-03
5289A	71	1-Aug-03	19-Aug-03	29-Oct-03
5290A	71	1-Aug-03	19-Aug-03	29-Oct-03
5291A	71	1-Aug-03	19-Aug-03	29-Oct-03
5292A	71	1-Aug-03	19-Aug-03	29-Oct-03
5301A	74	4-Aug-03	19-Aug-03	29-Oct-03

2003 Critical Dates for Water Samples Analyzed for Fipronil-Related Residues

Sample ID RAFIX019-	Sampling Event	Sampling Date Date	Shipping Date	Analysis Date
5302A	74	4-Aug-03	19-Aug-03	29-Oct-03
5303A	74	4-Aug-03	19-Aug-03	29-Oct-03
5304A	74	4-Aug-03	19-Aug-03	29-Oct-03
5313A	77	7-Aug-03	19-Aug-03	29-Oct-03
5314A	77	7-Aug-03	19-Aug-03	29-Oct-03
5315A	77	7-Aug-03	19-Aug-03	29-Oct-03
5316A	77	7-Aug-03	19-Aug-03	29-Oct-03
5535A	90	20-Aug-03	4-Nov-03	2/26/2004**
5536A	90	20-Aug-03	4-Nov-03	2/26/2004**
5537A	90	20-Aug-03	4-Nov-03	2/26/2004**
5538A	90	20-Aug-03	4-Nov-03	2/26/2004**
5409A	123	22-Sep-03	4-Nov-03	14-Sep-04
5410A	123	22-Sep-03	4-Nov-03	14-Sep-04
5411A	123	22-Sep-03	4-Nov-03	14-Sep-04
5412A	123	22-Sep-03	4-Nov-03	14-Sep-04
5413A	140	9-Oct-03	4-Nov-03	14-Sep-04
5414A	140	9-Oct-03	4-Nov-03	14-Sep-04
5415A	140	9-Oct-03	4-Nov-03	14-Sep-04
5416A	140	9-Oct-03	4-Nov-03	14-Sep-04
5417A	160	29-Oct-03	4-Nov-03	14-Sep-04
5418A	160	29-Oct-03	4-Nov-03	14-Sep-04
5419A	160	29-Oct-03	4-Nov-03	14-Sep-04
5420A	160	29-Oct-03	4-Nov-03	14-Sep-04
5421A	180	18-Nov-03	24-Nov-03	10-Dec-03
5422A	180	18-Nov-03	24-Nov-03	10-Dec-03
5423A	180	18-Nov-03	24-Nov-03	10-Dec-03
5424A	180	18-Nov-03	24-Nov-03	10-Dec-03
5539A	180	18-Nov-03	24-Nov-03	11/11/2004**
5540A	180	18-Nov-03	24-Nov-03	11/11/2004**
5541A	180	18-Nov-03	24-Nov-03	11/11/2004**
5542A	180	18-Nov-03	24-Nov-03	11/11/2004**

** Sediment Samples

2004 Critical Dates for Water Samples Analyzed for Fipronil-Related Residues

Sample ID RAFIX019-	Sampling Event	Sampling Date Date	Shipping Date	Analysis Date
6001A	Pre-Treatment	19-May-04	23-Jun-04	14-Aug-04
6002A	Pre-Treatment	19-May-04	23-Jun-04	14-Aug-04
6003A	Pre-Treatment	19-May-04	23-Jun-04	14-Aug-04
6004A	Pre-Treatment	19-May-04	23-Jun-04	14-Aug-04
6531B	Pre-Treatment	19-May-04	23-Jun-04	2/3/2005**
6532B	Pre-Treatment	19-May-04	23-Jun-04	2/3/2005**
6533B	Pre-Treatment	19-May-04	23-Jun-04	2/3/2005**
6534B	Pre-Treatment	19-May-04	23-Jun-04	2/3/2005**
6005A	0	19-May-04	23-Jun-04	14-Aug-04
6006A	0	19-May-04	23-Jun-04	14-Aug-04
6007A	0	19-May-04	23-Jun-04	14-Aug-04
6008A	0	19-May-04	23-Jun-04	14-Aug-04
6009A	1	20-May-04	23-Jun-04	14-Aug-04
6010A	1	20-May-04	23-Jun-04	14-Aug-04
6011A	1	20-May-04	23-Jun-04	14-Aug-04
6012A	1	20-May-04	23-Jun-04	14-Aug-04
6013A	2	21-May-04	23-Jun-04	14-Aug-04
6014A	2	21-May-04	23-Jun-04	14-Aug-04
6015A	2	21-May-04	23-Jun-04	14-Aug-04
6016A	2	21-May-04	23-Jun-04	14-Aug-04
6017A	3	22-May-04	23-Jun-04	18-Aug-04
6018A	3	22-May-04	23-Jun-04	18-Aug-04
6019A	3	22-May-04	23-Jun-04	18-Aug-04
6020A	3	22-May-04	23-Jun-04	18-Aug-04
6045A	10	29-May-04	23-Jun-04	18-Aug-04
6046A	10	29-May-04	23-Jun-04	18-Aug-04
6047A	10	29-May-04	23-Jun-04	18-Aug-04
6048A	10	29-May-04	23-Jun-04	18-Aug-04
6436A	10	29-May-04	23-Jun-04	8/24/2004*
6053A	12	31-May-04	23-Jun-04	18-Aug-04
6054A	12	31-May-04	23-Jun-04	18-Aug-04
6055A	12	31-May-04	23-Jun-04	18-Aug-04
6056A	12	31-May-04	23-Jun-04	18-Aug-04
6438A	12	31-May-04	23-Jun-04	8/24/2004*
6057A	13	1-Jun-04	23-Jun-04	18-Aug-04
6058A	13	1-Jun-04	23-Jun-04	18-Aug-04
6059A	13	1-Jun-04	23-Jun-04	18-Aug-04
6060A	13	1-Jun-04	23-Jun-04	18-Aug-04
6439A	13	1-Jun-04	23-Jun-04	8/24/2004*
6065A	15	3-Jun-04	23-Jun-04	20-Aug-04
6066A	15	3-Jun-04	23-Jun-04	20-Aug-04

* Pond Overflow

** Sediment Samples

2004 Critical Dates for Water Samples Analyzed for Fipronil-Related Residues

Sample ID RAFIX019-	Sampling Event	Sampling Date Date	Shipping Date	Analysis Date
6067A	15	3-Jun-04	23-Jun-04	20-Aug-04
6068A	15	3-Jun-04	23-Jun-04	20-Aug-04
6441A	15	3-Jun-04	23-Jun-04	8/24/2004*
6081A	19	7-Jun-04	23-Jun-04	20-Aug-04
6082A	19	7-Jun-04	23-Jun-04	20-Aug-04
6083A	19	7-Jun-04	23-Jun-04	20-Aug-04
6084A	19	7-Jun-04	23-Jun-04	20-Aug-04
6093A	22	10-Jun-04	23-Jun-04	20-Aug-04
6094A	22	10-Jun-04	23-Jun-04	20-Aug-04
6095A	22	10-Jun-04	23-Jun-04	20-Aug-04
6096A	22	10-Jun-04	23-Jun-04	20-Aug-04
6117A	28	16-Jun-04	23-Jun-04	20-Aug-04
6118A	28	16-Jun-04	23-Jun-04	20-Aug-04
6119A	28	16-Jun-04	23-Jun-04	20-Aug-04
6120A	28	16-Jun-04	23-Jun-04	20-Aug-04
6121A	29	17-Jun-04	23-Jun-04	24-Aug-04
6122A	29	17-Jun-04	23-Jun-04	24-Aug-04
6123A	29	17-Jun-04	23-Jun-04	24-Aug-04
6124A	29	17-Jun-04	23-Jun-04	24-Aug-04
6129A	31	19-Jun-04	23-Jun-04	24-Aug-04
6130A	31	19-Jun-04	23-Jun-04	24-Aug-04
6131A	31	19-Jun-04	23-Jun-04	24-Aug-04
6132A	31	19-Jun-04	23-Jun-04	24-Aug-04
6141A	34	22-Jun-04	23-Jun-04	24-Aug-04
6142A	34	22-Jun-04	23-Jun-04	24-Aug-04
6143A	34	22-Jun-04	23-Jun-04	24-Aug-04
6144A	34	22-Jun-04	23-Jun-04	24-Aug-04
6145A	35	23-Jun-04	23-Jun-04	24-Aug-04
6146A	35	23-Jun-04	23-Jun-04	24-Aug-04
6147A	35	23-Jun-04	23-Jun-04	24-Aug-04
6148A	35	23-Jun-04	23-Jun-04	24-Aug-04
6461A	35	23-Jun-04	23-Jun-04	8/24/2004*
6149A	36	24-Jun-04	10-Aug-04	7-Oct-04
6150A	36	24-Jun-04	10-Aug-04	7-Oct-04
6151A	36	24-Jun-04	10-Aug-04	7-Oct-04
6152A	36	24-Jun-04	10-Aug-04	7-Oct-04
6462A	36	24-Jun-04	10-Aug-04	10/10/2004*
6157A	38	26-Jun-04	10-Aug-04	7-Oct-04
6158A	38	26-Jun-04	10-Aug-04	7-Oct-04
6159A	38	26-Jun-04	10-Aug-04	7-Oct-04
6160A	38	26-Jun-04	10-Aug-04	7-Oct-04
6464A	38	26-Jun-04	10-Aug-04	10/10/2004*

* Pond Overflow

2004 Critical Dates for Water Samples Analyzed for Fipronil-Related Residues

Sample ID RAFIX019-	Sampling Event	Sampling Date Date	Shipping Date	Analysis Date
6161A	39	27-Jun-04	10-Aug-04	7-Oct-04
6162B	39	27-Jun-04	10-Aug-04	7-Oct-04
6163A	39	27-Jun-04	10-Aug-04	7-Oct-04
6164A	39	27-Jun-04	10-Aug-04	7-Oct-04
6465A	39	27-Jun-04	10-Aug-04	10/10/2004*
6165A	40	28-Jun-04	10-Aug-04	10-Oct-04
6166A	40	28-Jun-04	10-Aug-04	10-Oct-04
6167A	40	28-Jun-04	10-Aug-04	10-Oct-04
6168A	40	28-Jun-04	10-Aug-04	10-Oct-04
6466A	40	28-Jun-04	10-Aug-04	10/10/2004*
6169A	41	29-Jun-04	10-Aug-04	10-Oct-04
6170A	41	29-Jun-04	10-Aug-04	10-Oct-04
6171A	41	29-Jun-04	10-Aug-04	10-Oct-04
6172A	41	29-Jun-04	10-Aug-04	10-Oct-04
6467A	41	29-Jun-04	10-Aug-04	10/10/2004*
6173A	42	30-Jun-04	10-Aug-04	10-Oct-04
6174A	42	30-Jun-04	10-Aug-04	10-Oct-04
6175A	42	30-Jun-04	10-Aug-04	10-Oct-04
6176A	42	30-Jun-04	10-Aug-04	10-Oct-04
6468A	42	30-Jun-04	10-Aug-04	10/10/2004*
6177A	43	1-Jul-04	10-Aug-04	8-Oct-04
6178A	43	1-Jul-04	10-Aug-04	8-Oct-04
6179A	43	1-Jul-04	10-Aug-04	8-Oct-04
6180A	43	1-Jul-04	10-Aug-04	8-Oct-04
6469A	43	1-Jul-04	10-Aug-04	10-Oct-04
6181A	44	2-Jul-04	10-Aug-04	10-Oct-04
6182A	44	2-Jul-04	10-Aug-04	10-Oct-04
6183A	44	2-Jul-04	10-Aug-04	10-Oct-04
6184A	44	2-Jul-04	10-Aug-04	10-Oct-04
6470A	44	2-Jul-04	10-Aug-04	10/10/2004*
6185A	45	3-Jul-04	10-Aug-04	10-Oct-04
6186A	45	3-Jul-04	10-Aug-04	10-Oct-04
6187A	45	3-Jul-04	10-Aug-04	10-Oct-04
6188A	45	3-Jul-04	10-Aug-04	10-Oct-04
6471A	45	3-Jul-04	10-Aug-04	10/10/2004*
6193A	47	5-Jul-04	10-Aug-04	10-Oct-04
6194A	47	5-Jul-04	10-Aug-04	10-Oct-04
6195A	47	5-Jul-04	10-Aug-04	10-Oct-04
6196A	47	5-Jul-04	10-Aug-04	10-Oct-04
6473A	47	5-Jul-04	10-Aug-04	10/10/2004*
6205A	50	8-Jul-04	10-Aug-04	8-Oct-04
6206A	50	8-Jul-04	10-Aug-04	8-Oct-04

* Pond Overflow

2004 Critical Dates for Water Samples Analyzed for Fipronil-Related Residues

Sample ID RAFIX019- RAFIX019-	Sampling Event	Sampling Date Date	Shipping Date	Analysis Date
6207A	50	8-Jul-04	10-Aug-04	8-Oct-04
6208A	50	8-Jul-04	10-Aug-04	8-Oct-04
6217A	53	11-Jul-04	10-Aug-04	8-Oct-04
6218A	53	11-Jul-04	10-Aug-04	8-Oct-04
6219A	53	11-Jul-04	10-Aug-04	8-Oct-04
6220A	53	11-Jul-04	10-Aug-04	8-Oct-04
6241A	59	17-Jul-04	10-Aug-04	4-Oct-04
6242A	59	17-Jul-04	10-Aug-04	4-Oct-04
6243A	59	17-Jul-04	10-Aug-04	4-Oct-04
6244A	59	17-Jul-04	10-Aug-04	4-Oct-04
6245A	60	18-Jul-04	10-Aug-04	4-Oct-04
6246A	60	18-Jul-04	10-Aug-04	4-Oct-04
6247A	60	18-Jul-04	10-Aug-04	4-Oct-04
6248A	60	18-Jul-04	10-Aug-04	4-Oct-04
6253A	62	20-Jul-04	10-Aug-04	10-Oct-04
6254A	62	20-Jul-04	10-Aug-04	10-Oct-04
6255A	62	20-Jul-04	10-Aug-04	10-Oct-04
6256A	62	20-Jul-04	10-Aug-04	10-Oct-04
6269A	66	24-Jul-04	10-Aug-04	4-Oct-04
6270A	66	24-Jul-04	10-Aug-04	4-Oct-04
6271A	66	24-Jul-04	10-Aug-04	4-Oct-04
6272A	66	24-Jul-04	10-Aug-04	4-Oct-04
6277A	68	26-Jul-04	10-Aug-04	4-Oct-04
6278A	68	26-Jul-04	10-Aug-04	4-Oct-04
6279A	68	26-Jul-04	10-Aug-04	4-Oct-04
6280A	68	26-Jul-04	10-Aug-04	4-Oct-04
6281A	69	27-Jul-04	10-Aug-04	11-Oct-04
6282A	69	27-Jul-04	10-Aug-04	11-Oct-04
6283A	69	27-Jul-04	10-Aug-04	11-Oct-04
6284A	69	27-Jul-04	10-Aug-04	11-Oct-04
6281A	71	29-Jul-04	10-Aug-04	4-Oct-04
6282A	71	29-Jul-04	10-Aug-04	4-Oct-04
6283A	71	29-Jul-04	10-Aug-04	4-Oct-04
6284A	71	29-Jul-04	10-Aug-04	4-Oct-04
6301A	74	1-Aug-04	10-Aug-04	11-Oct-04
6302A	74	1-Aug-04	10-Aug-04	11-Oct-04
6303A	74	1-Aug-04	10-Aug-04	11-Oct-04
6304A	74	1-Aug-04	10-Aug-04	11-Oct-04
6313A	77	4-Aug-04	10-Aug-04	11-Oct-04
6314A	77	4-Aug-04	10-Aug-04	11-Oct-04
6315A	77	4-Aug-04	10-Aug-04	11-Oct-04
6316A	77	4-Aug-04	10-Aug-04	11-Oct-04

** Sediment Samples

2004 Critical Dates for Water Samples Analyzed for Fipronil-Related Residues

Sample ID RAFIX019-RAFIX019-	Sampling Event	Sampling Date Date	Shipping Date	Analysis Date
6325A	80	7-Aug-04	10-Aug-04	11-Oct-04
6326A	80	7-Aug-04	10-Aug-04	11-Oct-04
6327A	80	7-Aug-04	10-Aug-04	11-Oct-04
6328A	80	7-Aug-04	10-Aug-04	11-Oct-04
6337A	83	10-Aug-04	15-Nov-04	8-Dec-04
6338A	83	10-Aug-04	15-Nov-04	8-Dec-04
6339A	83	10-Aug-04	15-Nov-04	8-Dec-04
6340A	83	10-Aug-04	15-Nov-04	8-Dec-04
6365A	90	17-Aug-04	15-Nov-04	8-Dec-04
6366A	90	17-Aug-04	15-Nov-04	8-Dec-04
6367A	90	17-Aug-04	15-Nov-04	8-Dec-04
6368A	90	17-Aug-04	15-Nov-04	8-Dec-04
6535A	90	17-Aug-04	15-Nov-04	1/12/2005**
6536A	90	17-Aug-04	15-Nov-04	1/12/2005**
6537A	90	17-Aug-04	15-Nov-04	1/12/2005**
6538A	90	17-Aug-04	15-Nov-04	1/12/2005**
6405A	100	27-Aug-04	15-Nov-04	8-Dec-04
6406A	100	27-Aug-04	15-Nov-04	8-Dec-04
6407A	100	27-Aug-04	15-Nov-04	8-Dec-04
6408A	100	27-Aug-04	15-Nov-04	8-Dec-04
6409A	119	15-Sep-04	15-Nov-04	14-Dec-04
6410A	119	15-Sep-04	15-Nov-04	14-Dec-04
6411A	119	15-Sep-04	15-Nov-04	14-Dec-04
6412A	119	15-Sep-04	15-Nov-04	14-Dec-04
6413A	144	10-Oct-04	15-Nov-04	14-Dec-04
6414A	144	10-Oct-04	15-Nov-04	14-Dec-04
6415A	144	10-Oct-04	15-Nov-04	14-Dec-04
6416A	144	10-Oct-04	15-Nov-04	14-Dec-04
6528A	144	10-Oct-04	15-Nov-04	12/14/2004*
6543A	145	11-Oct-04	15-Nov-04	14-Dec-04
6544A	145	11-Oct-04	15-Nov-04	14-Dec-04
6545A	145	11-Oct-04	15-Nov-04	14-Dec-04
6546A	145	11-Oct-04	15-Nov-04	14-Dec-04
6547A	145	11-Oct-04	15-Nov-04	12/14/2004*
6548A	147	13-Oct-04	15-Nov-04	14-Dec-04
6549A	147	13-Oct-04	15-Nov-04	14-Dec-04
6550A	147	13-Oct-04	15-Nov-04	15-Dec-04
6551A	147	13-Oct-04	15-Nov-04	15-Dec-04
6552A	147	13-Oct-04	15-Nov-04	12/15/2004*
6553A	150	16-Oct-04	15-Nov-04	15-Dec-04
6554A	150	16-Oct-04	15-Nov-04	15-Dec-04

* Pond Overflow

** Sediment Samples

2004 Critical Dates for Water Samples Analyzed for Fipronil-Related Residues

Sample ID RAFIX019-RAFIX019-	Sampling Event	Sampling Date Date	Shipping Date	Analysis Date
6555A	150	16-Oct-04	15-Nov-04	15-Dec-04
6556A	150	16-Oct-04	15-Nov-04	15-Dec-04
6557A	153	19-Oct-04	15-Nov-04	15-Dec-04
6558A	153	19-Oct-04	15-Nov-04	15-Dec-04
6559A	153	19-Oct-04	15-Nov-04	15-Dec-04
6560A	153	19-Oct-04	15-Nov-04	15-Dec-04
6417A	159	25-Oct-04	15-Nov-04	14-Dec-04
6418A	159	25-Oct-04	15-Nov-04	14-Dec-04
6419A	159	25-Oct-04	15-Nov-04	14-Dec-04
6420A	159	25-Oct-04	15-Nov-04	14-Dec-04
6421A	177	12-Nov-04	15-Nov-04	14-Dec-04
6422A	177	12-Nov-04	15-Nov-04	14-Dec-04
6423A	177	12-Nov-04	15-Nov-04	14-Dec-04
6424A	177	12-Nov-04	15-Nov-04	14-Dec-04
6539A	178	12-Nov-04	15-Nov-04	1/12/2005**
6540A	178	12-Nov-04	15-Nov-04	1/12/2005**
6541A	178	12-Nov-04	15-Nov-04	1/12/2005**
6542A	178	12-Nov-04	15-Nov-04	1/12/2005**

** Sediment Samples

Table VIII. Concurrent Recoveries of Fipronil, MB46513, MB45950 and MB46136 Spiked at 1.0 ppb and Analyzed with Storage Stability Samples.

	Concurrent Recovery			
Storage Period	Fipronil	MB46513	MB45950	MB46136
Day 0	93	96	86	93
Week 1	67	64	73	86
Month 1	74	91	105	112
Month 3	86	63	60	72
Month 6	90	93	92	90
Month 9	75	79	78	84
Month 12	94	93	88	90
Month 25	97	101	103	106

Table IX. Storage Stability Recovery Summary for Fipronil, MB46513, MB45950 and MB46136.[1, 2]

	Percent Recovery			
Storage Period	Fipronil	MB46513	MB45950	MB46136
Day 0	103	100	107	103
	100	98	101	101
	99	97	100	100
Average	**101**	**98**	**103**	**101**
Week 1	116	114	93	92
	112	111	93	94
	125	128	103	102
Average	**118**	**118**	**96**	**96**
Month 1	104	95	82	79
	116	96	90	88
	115	100	86	80
Average	**112**	**97**	**86**	**82**
Month 3	115	156	142	124
	119	167	162	128
	115	159	160	124
Average	**116**	**161**	**155**	**125**
Month 6	106	97	97	96
	106	102	95	93
	99	100	93	92
Average	**104**	**100**	**95**	**94**
Month 9	99	90	94	89
	103	95	96	88
	101	92	95	87
Average	**101**	**92**	**95**	**88**
Month 12	100	100	102	103
	98	105	108	108
	100	104	109	110
Average	**99**	**103**	**106**	**107**
Month 25	104	102	95	96
	100	99	96	94
	103	98	99	98
Average	**102**	**100**	**97**	**96**

[1] Corrected for concurrent recoveries.

[2] Raw data is archived with Study Number 02YV35979

Table IV. Water Method Verification Results

Sample Identification	Fortification Level (ng/mL)	Percent Recovery			
		Fipronil	MB46513	MB45950	MB46136
03RAFIX019-BULK 2-UTC-1	0	ND	ND	ND	ND
03RAFIX019-Bulk 2-UTC-2	0	ND	ND	ND	ND
03RAFIX019-Bulk-2-10ppt-1	0.01	88.5	104.1	88.6	96.0
03RAFIX019-Bulk-2-10ppt-2	0.01	99.4	96.2	100.7	94.6
03RAFIX019-Bulk-2-10ppt-3	0.01	86.1	98.7	91.5	94.3
03RAFIX019-Bulk-2-100ppt-1	0.10	92.0	99.7	95.2	97.0
03RAFIX019-Bulk-2-100ppt-2	0.10	92.5	96.5	99.1	95.9
03RAFIX019-Bulk-2-100ppt-3	0.10	96.2	103.1	97.4	97.4
Mean Recovery		**92.4 n=6**	**99.7 n=6**	**95.4 n=6**	**95.9 n=6**

5.4.2 Procedural Recoveries

Each sample set contained at least one control sample (pre-application bulk water) fortified with a mixture of fipronil, MB46513, MB45950 and MB46136. The fortification level was 0.100 ng/mL. The procedural recoveries are summarized in Table V. In addition, all quantitative data for the procedural recoveries are included in Appendix I.

Table V. Mean Procedural Recoveries from Fortified Bulk Water

Analyte	Fortification Level (ng/mL)	Number of Fortifications	Mean Percent Recovery
Fipronil	0.100	30	86
MB46513	0.100	30	90
MB45950	0.100	30	89
MB46136	0.100	30	94

5.4.3 Analytical Results of Water Samples

Samples from the pond and pond overflow outlet were analyzed to evaluate the possibility of runoff containing fipronil related residues. The LOQ was 0.010 ng/mL, and the MDL was 0.004 ng/mL for fipronil and its metabolites,

application (bulk) pond water with a mixture of fipronil, MB46513, MB45950, and MB46136 to yield concentrations of 0.01 ng/mL and 0.10 ng/mL. The results are summarized in Table VI and demonstrate good accountability for the analyte after storage and transfer to the analytical facility. All quantitative data for the field recovery samples are included in Appendix I.

Table VI. Recoveries from Field Fortified Water Samples

Fortification Level (ng/mL)	Replicate	Percent Recovery			
		Fipronil	MB46513	MB45950	MB46136
0	A	ND	ND	ND	ND
	B	ND	ND	ND	ND
0.01	A	70	76	71	70
	B	76	90	86	75
	C	70	74	77	81
	D	83	92	86	87
0.10	A	85	98	97	95
	B	101	108	94	93
	C	94	106	102	96
	D	89	95	85	88

5.4.5 Storage Stability

The majority of the water samples from the Pickens, AR site were analyzed within approximately 120 days of collection each year. A few were analyzed late to evaluate and confirm the stability of fipronil-related residues in frozen water with a storage interval extending beyond 180 days. The storage stability data summarized in Tables VIII, IX and generated in (Reference 3) demonstrate the stability of fipronil and its metabolites in frozen water stored for up to 25 months which includes the longest period between receipt and analysis.

5.5 Sediment Analysis

5.5.1 Method of Analysis

During the course of this study, a method of analysis was developed for the sediment samples. The acceptable recoveries observed in the sample sets demonstrated the capability of the method to extract fipronil-related residues from sediment. The procedural recoveries in this study are provided in Table VII.

Table VII. Mean Procedural Recoveries from Fortified Sediment

Analyte	Fortification Level (ng/mL)	Number of Fortifications	Mean Percent Recovery
Fipronil	0.10	2	103
	0.20	2	86
	1.00	1	104
	2.00	1	102
	Mean	**6**	**99**
MB46513	0.10	2	107
	0.20	2	99
	1.00	1	104
	2.00	1	98
	Mean	**6**	**102**
MB45950	0.10	2	100
	0.20	2	94
	1.00	1	102
	2.00	1	99
	Mean	**6**	**99**
MB46136	0.10	2	105
	0.20	2	93
	1.00	1	105
	2.00	1	100
	Mean	**6**	**101**

5.5.2 Analytical Results of Sediment Samples

Sediment samples were collected prior to application and again at 90 and 180 DAT in 2003. In 2004, sediment samples were collected before application and at 90 and 178 DAT. Both years the sediment samples were analyzed for fipronil-related residues. Parent fipronil residues were not detected in any of the sediment samples collected before application or at 90 and 180 days after application in 2003 and 2004. The fipronil-related metabolite detects that occurred were at or below the LOQ of 0.10 ppb. (NOTE: Exception is 0.191 ppb at 90 DAT in 2003). Metabolite MB46513 was detected in two sediment samples 90 DAT in 2003 but not dectected in any samples in 2004. Metabolite MB45950 was detected in one pretreatment sample and four 90 DAT samples in 2003. Detects also occurred in three pretreatment samples and two 90 DAT samples in 2004. Detects of metabolite MB46136 occurred in two 90 DAT samples in 2003, and three pretreatment samples and one 90 DAT sample in 2004. The results are summarized in Tables XII and XV.

6.0 DISCUSSION

The test site investigated in this study was in an established golf course near Pickens, Arkansas where runoff water from this site entered the pond primarily

Table X. 2003 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
Pre-Treatment	RAFIX019-5001A	22 May 2003	ND	ND	ND	ND
Pre-Treatment	RAFIX019-5002A	22 May 2003	ND	ND	ND	ND
Pre-Treatment	RAFIX019-5003A	22 May 2003	ND	ND	ND	ND
Pre-Treatment	RAFIX019-5004A	22 May 2003	ND	ND	ND	ND
0	RAFIX019-5005A	22 May 2003	ND	ND	ND	ND
0	RAFIX019-5006A	22 May 2003	ND	ND	ND	ND
0	RAFIX019-5007A	22 May 2003	ND	ND	ND	ND
0	RAFIX019-5008A	22 May 2003	ND	ND	ND	ND
11	RAFIX019-5049A	2 June 2003	0.017	ND	ND	ND
11	RAFIX019-5050A	2 June 2003	0.010	ND	ND	ND
11	RAFIX019-5051A	2 June 2003	0.011	ND	ND	ND
11	RAFIX019-5052A	2 June 2003	<LOQ (0.006)	ND	ND	ND
12	RAFIX019-5053A	3 June 2003	<LOQ (0.005)	ND	ND	ND
12	RAFIX019-5054A	3 June 2003	<LOQ (0.007)	ND	ND	ND
12	RAFIX019-5055A	3 June 2003	<LOQ (0.004)	ND	ND	ND
12	RAFIX019-5056B	3 June 2003	<LOQ (0.006)	ND	ND	ND
15	RAFIX019-5065A	6 June 2003	<LOQ (0.004)	ND	ND	ND
15	RAFIX019-5066A	6 June 2003	<LOQ (0.008)	ND	ND	ND
15	RAFIX019-5067A	6 June 2003	0.015	ND	ND	ND
15	RAFIX019-5068A	6 June 2003	<LOQ (0.006)	ND	<LOQ (0.004)	ND
16	RAFIX019-5069A	7 June 2003	ND	ND	ND	ND
16	RAFIX019-5070A	7 June 2003	<LOQ (0.0070	ND	ND	ND
16	RAFIX019-5071A	7 June 2003	<LOQ (0.008)	ND	ND	ND
16	RAFIX019-5072A	7 June 2003	<LOQ (0.005)	ND	ND	ND
18	RAFIX019-5077A	9 June 2003	ND	ND	ND	ND

(continued; footnotes to follow)

Table X. (continued). 2003 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
18	RAFIX019-5078A	9 June 2003	ND	ND	ND	ND
18	RAFIX019-5079A	9 June 2003	<LOQ (0.006)	ND	ND	ND
18	RAFIX019-5080A	9 June 2003	ND	ND	ND	ND
19	RAFIX019-5081A	10 June 2003	ND	ND	ND	ND
19	RAFIX019-5082A	10 June 2003	<LOQ (0.004)	ND	ND	ND
19	RAFIX019-5083A	10 June 2003	<LOQ (0.006)	ND	ND	ND
19	RAFIX019-5084A	10 June 2003	ND	ND	ND	ND
20	RAFIX019-5085A	11 June 2003	ND	ND	ND	ND
20	RAFIX019-5086A	11 June 2003	<LOQ (0.004)	ND	ND	ND
20	RAFIX019-5087A	11 June 2003	<LOQ (0.008)	ND	ND	ND
20	RAFIX019-5088A	11 June 2003	0.013	ND	ND	ND
21	RAFIX019-5089A	12 June 2003	0.304	ND	ND	0.035
21	RAFIX019-5090A	12 June 2003	0.348	ND	<LOQ (0.004)	0.038
21	RAFIX019-5091A	12 June 2003	0.283	ND	ND	0.034
21	RAFIX019-5092A	12 June 2003	0.256	ND	ND	0.032
22	RAFIX019-5093A	13 June 2003	0.279	0.011	ND	0.035
22	RAFIX019-5094A	13 June 2003	0.288	0.010	<LOQ (0.004)	0.037
22	RAFIX019-5095A	13 June 2003	0.280	0.011	ND	0.035
22	RAFIX019-5096A	13 June 2003	0.281	0.013	ND	0.035
23	RAFIX019-5097A	14 June 2003	0.262	0.014	ND	0.034
23	RAFIX019-5098A	14 June 2003	0.264	0.014	ND	0.036
23	RAFIX019-5099A	14 June 2003	0.260	0.013	ND	0.033
23	RAFIX019-5100A	14 June 2003	0.276	0.012	ND	0.033
25	RAFIX019-5105A	16 June 2003	0.218	0.026	<LOQ (0.004)	0.030
25	RAFIX019-5106A	16 June 2003	0.228	0.034	<LOQ (0.004)	0.031
25	RAFIX019-5107A	16 June 2003	0.204	0.031	<LOQ (0.004)	0.028

(continued; footnotes to follow)

Table X. (continued). 2003 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
25	RAFIX019-5108A	16 June 2003	0.218	0.029	<LOQ (0.004)	0.029
26	RAFIX019-5109A	17 June 2003	0.204	0.023	<LOQ (0.005)	0.029
26	RAFIX019-5110A	17 June 2003	0.214	0.021	<LOQ (0.005)	0.037
26	RAFIX019-5111A	17 June 2003	0.229	0.020	<LOQ (0.005)	0.036
26	RAFIX019-5112A	17 June 2003	0.219	0.022	<LOQ (0.006)	0.033
27	RAFIX019-5113A	18 June 2003	0.222	0.021	<LOQ (0.007)	0.040
27	RAFIX019-5114A	18 June 2003	0.212	0.027	<LOQ (0.006)	0.039
27	RAFIX019-5115A	18 June 2003	0.234	0.026	<LOQ (0.007)	0.042
27	RAFIX019-5116A	18 June 2003	0.219	0.027	<LOQ (0.007)	0.044
28	RAFIX019-5117A	19 June 2003	0.210	0.030	<LOQ (0.007)	0.041
28	RAFIX019-5119A	19 June 2003	0.203	0.028	<LOQ (0.009)	0.038
28	RAFIX019-5120A	19 June 2003	0.202	0.029	<LOQ (0.007)	0.039
29	RAFIX019-5121A	20 June 2003	0.193	0.028	<LOQ (0.008)	0.041
29	RAFIX019-5122A	20 June 2003	0.185	0.030	<LOQ (0.007)	0.042
29	RAFIX019-5123A	20 June 2003	0.192	0.027	<LOQ (0.008)	0.040
29	RAFIX019-5124A	20 June 2003	0.189	0.028	<LOQ (0.007)	0.039
32	RAFIX019-5133A	23 June 2003	0.096	0.046	0.011	0.024
32	RAFIX019-5134A	23 June 2003	0.063	0.028	<LOQ (0.006)	0.014
32	RAFIX019-5135A	23 June 2003	0.054	0.021	<LOQ (0.006)	0.016

(continued; footnotes to follow)

Table X. (continued). 2003 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
32	RAFIX019-5136A	23 June 2003	0.063	0.023	<LOQ (0.007)	0.017
33	RAFIX019-5137A	24 June 2003	0.089	0.045	0.010	0.024
33	RAFIX019-5138A	24 June 2003	0.060	0.028	<LOQ (0.006)	0.014
33	RAFIX019-5139A	24 June 2003	0.052	0.019	<LOQ (0.006)	0.014
33	RAFIX019-5140A	24 June 2003	0.058	0.024	<LOQ (0.008)	0.016
34	RAFIX019-5141A	25 June 2003	0.086	0.042	0.010	0.021
34	RAFIX019-5142A	25 June 2003	0.060	0.029	<LOQ (0.006)	0.014
34	RAFIX019-5143A	25 June 2003	0.052	0.018	<LOQ (0.006)	0.015
34	RAFIX019-5144A	25 June 2003	0.064	0.024	<LOQ (0.008)	0.018
35	RAFIX019-5145A	26 June 2003	0.103	0.044	0.010	0.022
35	RAFIX019-5146A	26 June 2003	0.059	0.029	<LOQ (0.007)	0.014
35	RAFIX019-5147A	26 June 2003	0.049	0.018	<LOQ (0.006)	0.014
35	RAFIX019-5148A	26 June 2003	0.062	0.024	<LOQ (0.007)	0.017
36	RAFIX019-5149A	27 June 2003	0.084	0.041	<LOQ (0.009)	0.021
36	RAFIX019-5150A	27 June 2003	0.063	0.029	<LOQ (0.005)	0.015
36	RAFIX019-5151A	27 June 2003	0.053	0.018	<LOQ (0.006)	0.015
36	RAFIX019-5152A	27 June 2003	0.061	0.024	<LOQ (0.007)	0.017
39	RAFIX019-5161A	30 June 2003	0.034	0.026	0.014	0.016
39	RAFIX019-5162A	30 June 2003	0.042	0.027	0.015	0.017
39	RAFIX019-5163A	30 June 2003	0.035	0.026	0.013	0.017
39	RAFIX019-5164A	30 June 2003	0.037	0.027	0.014	0.017
40	RAFIX019-5165A	1 July 2003	0.034	0.027	0.014	0.017
40	RAFIX019-5166A	1 July 2003	0.042	0.027	0.014	0.017

(continued; footnotes to follow)

Table X. (continued). 2003 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
43	RAFIX019-5177A	4 July 2003	0.029	0.024	0.016	0.015
43	RAFIX019-5178A	4 July 2003	0.036	0.024	0.015	0.016
43	RAFIX019-5179A	4 July 2003	0.031	0.023	0.013	0.015
43	RAFIX019-5180A	4 July 2003	0.031	0.022	0.014	0.015
53	RAFIX019-5217A	14 July 2003	0.010	0.016	0.013	0.011
53	RAFIX019-5218A	14 July 2003	0.014	0.017	0.013	0.012
53	RAFIX019-5219A	14 July 2003	0.013	0.017	0.013	0.011
53	RAFIX019-5220A	14 July 2003	0.013	0.018	0.014	0.011
54	RAFIX019-5221A	15 July 2003	0.010	0.016	0.013	<LOQ (0.009)
54	RAFIX019-5222A	15 July 2003	<LOQ (0.009)	0.014	0.014	0.010
54	RAFIX019-5223A	15 July 2003	0.010	0.016	0.014	0.010
54	RAFIX019-5224A	15 July 2003	<LOQ (0.009)	0.016	0.015	0.011
58	RAFIX019-5237A	19 July 2003	<LOQ (0.009)	0.017	0.014	0.010
58	RAFIX019-5238A	19 July 2003	<LOQ (0.008)	0.014	0.016	0.010
58	RAFIX019-5239A	19 July 2003	<LOQ (0.008)	0.015	0.016	<LOQ (0.009)
58	RAFIX019-5240A	19 July 2003	<LOQ (0.009)	0.016	0.016	0.010
70	RAFIX019-5285A	31 July 2003	<LOQ (0.005)	0.012	0.012	<LOQ (0.009)
70	RAFIX019-5286A	31 July 2003	<LOQ (0.005)	0.012	0.012	<LOQ (0.008)
70	RAFIX019-5287A	31 July 2003	0.011	0.013	0.011	<LOQ (0.009)
70	RAFIX019-5288A	31 July 2003	<LOQ (0.007)	0.012	0.012	0.010
71	RAFIX019-5289A	1 August 2003	<LOQ (0.005)	0.011	0.012	<LOQ (0.008)
71	RAFIX019-5290A	1 August 2003	<LOQ (0.004)	0.011	0.011	<LOQ (0.007)

(continued; footnotes to follow)

Table X. (continued). 2003 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
71	RAFIX019-5291A	1 August 2003	<LOQ (0.005)	0.012	0.012	<LOQ (0.008)
71	RAFIX019-5292A	1 August 2003	<LOQ (0.005)	0.011	0.010	<LOQ (0.006)
74	RAFIX019-5301A	4 August 2003	ND	ND	<LOQ (0.009)	ND
74	RAFIX019-5302A	4 August 2003	<LOQ (0.004)	<LOQ (0.004)	0.010	ND
74	RAFIX019-5303A	4 August 2003	ND	<LOQ (0.004)	<LOQ (0.007)	<LOQ (0.008)
74	RAFIX019-5304A	4 August 2003	ND	ND	0.010	ND
77	RAFIX019-5313A	7 August 2003	ND	ND	<LOQ (0.009)	ND
77	RAFIX019-5314A	7 August 2003	<LOQ (0.004)	<LOQ (0.004)	<LOQ (0.008)	ND
77	RAFIX019-5315A	7 August 2003	<LOQ (0.004)	ND	0.010	ND
77	RAFIX019-5316A	7 August 2003	ND	ND	0.011	ND
123	RAFIX019-5409A	22 Sept 2003	ND	ND	<LOQ (0.005)	ND
123	RAFIX019-5410A	22 Sept 2003	ND	ND	<LOQ (0.005)	ND
123	RAFIX019-5411A	22 Sept 2003	ND	ND	<LOQ (0.005)	ND
123	RAFIX019-5412A	22 Sept 2003	ND	ND	ND	ND
140	RAFIX019-5413A	9 October 2003	ND	ND	ND	ND
140	RAFIX019-5414A	9 October 2003	ND	ND	ND	ND
140	RAFIX019-5415A	9 October 2003	ND	ND	ND	ND
140	RAFIX019-5416A	9 October 2003	ND	ND	ND	ND
160	RAFIX019-5417A	29 October 2003	ND	ND	ND	ND
160	RAFIX019-5418A	29 October 2003	ND	ND	ND	ND
160	RAFIX019-5419A	29 October 2003	ND	ND	ND	ND
160	RAFIX019-5420A	29 October 2003	ND	ND	ND	ND

(continued; footnotes to follow)

Table X. (continued). 2003 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
180	RAFIX019-5421A	18 Nov 2003	ND	ND	<LOQ (0.004)	<LOQ (0.006)
180	RAFIX019-5422A	18 Nov 2003	<LOQ (0.005)	ND	ND	<LOQ (0.005)
180	RAFIX019-5423A	18 Nov 2003	<LOQ (0.004)	ND	ND	<LOQ (0.005)
180	RAFIX019-5424A	18 Nov 2003	<LOQ (0.005)	ND	ND	<LOQ (0.006)

[a] ND = nondetectable. The limits of quantification (LOQ) for all analytes = 0.010 ppb. The method limit of detection (MDL) for all analytes = 0.004 ppb.

Table XI. 2003 Analytical Results of Golf Course Pond Overflow Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
21	RAFIX019-5447A	12 June 2003	0.228	ND	ND	0.030
22	RAFIX019-5448A	13 June 2003	0.271	0.015	ND	0.042
23	RAFIX019-5449A	14 June 2003	0.241	0.014	<LOQ (0.004)	0.033
26	RAFIX019-5452A	17 June 2003	0.196	0.018	<LOQ (0.004)	0.035

[a] ND = nondetectable. The limits of quantification (LOQ) for all analytes = 0.010 ppb. The method limit of detection (MDL) for all analytes = 0.004 ppb.

Table XIII. 2004 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
Pre-Treatment	RAFIX019-6001A	19 May 2004	ND	ND	ND	<LOQ (0.008)
Pre-Treatment	RAFIX019-6002A	19 May 2004	ND	ND	ND	<LOQ (0.009)
Pre-Treatment	RAFIX019-6003A	19 May 2004	ND	ND	ND	<LOQ (0.008)
Pre-Treatment	RAFIX019-6004A	19 May 2004	ND	ND	ND	<LOQ (0.009)
0	RAFIX019-6005A	19 May 2004	ND	ND	ND	<LOQ (0.009)
0	RAFIX019-6006A	19 May 2004	ND	ND	ND	<LOQ (0.009)
0	RAFIX019-6007A	19 May 2004	ND	ND	ND	<LOQ (0.009)
0	RAFIX019-6008A	19 May 2004	ND	ND	ND	<LOQ (0.009)
1	RAFIX019-6009A	20 May 2004	ND	ND	ND	<LOQ (0.008)
1	RAFIX019-6010A	20 May 2004	ND	ND	ND	<LOQ (0.008)
1	RAFIX019-6011A	20 May 2004	ND	ND	ND	<LOQ (0.009)
1	RAFIX019-6012A	20 May 2004	ND	ND	ND	<LOQ (0.008)
2	RAFIX019-6013A	21 May 2004	ND	ND	ND	<LOQ (0.009)
2	RAFIX019-6014A	21 May 2004	ND	ND	ND	<LOQ (0.008)
2	RAFIX019-6015A	21 May 2004	ND	ND	ND	<LOQ (0.008)
2	RAFIX019-6016B	21 May 2004	ND	ND	ND	<LOQ (0.008)
3	RAFIX019-6017A	22 May 2004	ND	ND	ND	<LOQ (0.008)
3	RAFIX019-6018A	22 May 2004	ND	ND	ND	<LOQ (0.008)
3	RAFIX019-6019A	22 May 2004	ND	ND	ND	<LOQ (0.008)

(continued; footnotes to follow)

Table XIII. (continued). 2004 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
3	RAFIX019-6020A	22 May 2004	ND	ND	ND	<LOQ (0.009)
10	RAFIX019-6045A	29 May 2004	0.100	<LOQ (0.004)	ND	0.014
10	RAFIX019-6046A	29 May 2004	0.092	<LOQ (0.004)	ND	0.015
10	RAFIX019-6047A	29 May 2004	0.096	<LOQ (0.004)	ND	0.013
10	RAFIX019-6048A	29 May 2004	0.108	<LOQ (0.004)	ND	0.015
12	RAFIX019-6053A	31 May 2004	0.211	0.012	ND	0.025
12	RAFIX019-6054A	31 May 2004	0.222	0.011	ND	0.026
12	RAFIX019-6055A	31 May 2004	0.217	0.014	ND	0.026
12	RAFIX019-6056A	31 May 2004	0.232	0.015	ND	0.030
13	RAFIX019-6057A	1 June 2004	0.180	0.017	ND	0.025
13	RAFIX019-6058A	1 June 2004	0.181	0.017	<LOQ (0.004)	0.027
13	RAFIX019-6059A	1 June 2004	0.212	0.015	<LOQ (0.004)	0.032
13	RAFIX019-6060A	1 June 2004	0.214	0.017	<LOQ (0.004)	0.031
15	RAFIX019-6065A	3 June 2004	0.129	0.020	<LOQ (0.007)	0.020
15	RAFIX019-6066A	3 June 2004	0.130	0.019	<LOQ (0.008)	0.021
15	RAFIX019-6067A	3 June 2004	0.132	0.022	<LOQ (0.008)	0.022
15	RAFIX019-6068A	3 June 2004	0.118	0.022	<LOQ (0.008)	0.021
19	RAFIX019-6081A	7 June 2004	0.088	0.029	0.012	0.022
19	RAFIX019-6082A	7 June 2004	0.093	0.031	0.010	0.020
19	RAFIX019-6083A	7 June 2004	0.093	0.030	0.011	0.020
19	RAFIX019-6084A	7 June 2004	0.091	0.023	0.010	0.021
22	RAFIX019-6093A	10 June 2004	0.053	0.020	0.012	0.016
22	RAFIX019-6094A	10 June 2004	0.060	0.017	0.011	0.016

(continued; footnotes to follow)

Table XIII. (continued). 2004 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
22	RAFIX019-6095A	10 June 2004	0.049	0.020	0.011	0.015
22	RAFIX019-6096A	10 June 2004	0.049	0.016	0.011	0.015
28	RAFIX019-6117A	16 June 2004	0.029	0.016	0.013	0.014
28	RAFIX019-6118A	16 June 2004	0.027	0.017	0.014	0.014
28	RAFIX019-6119A	16 June 2004	0.032	0.028	0.019	0.016
28	RAFIX019-6120A	16 June 2004	0.030	0.028	0.019	0.017
29	RAFIX019-6121A	17 June 2004	0.026	0.024	0.013	0.014
29	RAFIX019-6122A	17 June 2004	0.030	0.029	0.015	0.017
29	RAFIX019-6123A	17 June 2004	0.070	0.030	0.016	0.019
29	RAFIX019-6124A	17 June 2004	0.032	0.033	0.016	0.017
31	RAFIX019-6129A	19 June 2004	0.023	0.021	0.013	0.013
31	RAFIX019-6130A	19 June 2004	0.024	0.021	0.013	0.014
31	RAFIX019-6131A	19 June 2004	0.025	0.028	0.016	0.015
31	RAFIX019-6132A	19 June 2004	0.023	0.030	0.017	0.015
34	RAFIX019-6141A	22 June 2004	0.029	0.022	0.011	0.019
34	RAFIX019-6142A	22 June 2004	0.030	0.016	0.011	0.018
34	RAFIX019-6143A	22 June 2004	0.029	0.024	0.015	0.022
34	RAFIX019-6144A	22 June 2004	0.034	0.025	0.012	0.022
35	RAFIX019-6145A	23 June 2004	0.035	0.016	0.012	0.020
35	RAFIX019-6146A	23 June 2004	0.035	0.021	0.014	0.019
35	RAFIX019-6147A	23 June 2004	0.031	0.022	0.014	0.020
35	RAFIX019-6148A	23 June 2004	0.033	0.024	0.016	0.023
36	RAFIX019-6149A	24 June 2004	0.031	0.020	0.013	0.023
36	RAFIX019-6150A	24 June 2004	0.030	0.021	0.013	0.021
36	RAFIX019-6151A	24 June 2004	0.027	0.020	0.012	0.021
36	RAFIX019-6152A	24 June 2004	0.033	0.019	0.012	0.024
38	RAFIX019-6157A	26 June 2004	0.024	0.021	0.012	0.021
38	RAFIX019-6158A	26 June 2004	0.025	0.020	0.014	0.025
38	RAFIX019-6159A	26 June 2004	0.031	0.020	0.013	0.025
38	RAFIX019-6160A	26 June 2004	0.027	0.020	0.012	0.020
39	RAFIX019-6161A	27 June 2004	0.032	0.019	0.012	0.025
39	RAFIX019-6162A	27 June 2004	0.032	0.019	0.012	0.025
39	RAFIX019-6163A	27 June 2004	0.036	0.019	0.012	0.032
39	RAFIX019-6164A	27 June 2004	0.032	0.021	0.011	0.030

(continued; footnotes to follow)

Table XIII. (continued). 2004 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
40	RAFIX019-6165A	28 June 2004	0.040	0.018	0.013	0.030
40	RAFIX019-6166A	28 June 2004	0.040	0.017	0.013	0.030
40	RAFIX019-6167A	28 June 2004	0.048	0.015	0.013	0.036
40	RAFIX019-6168A	28 June 2004	0.067	0.015	0.015	0.052
41	RAFIX019-6169A	29 June 2004	0.041	0.016	0.013	0.031
41	RAFIX019-6170A	29 June 2004	0.038	0.016	0.012	0.029
41	RAFIX019-6171A	29 June 2004	0.038	0.018	0.013	0.033
41	RAFIX019-6172A	29 June 2004	0.045	0.018	0.013	0.037
42	RAFIX019-6173A	30 June 2004	0.036	0.016	0.013	0.032
42	RAFIX019-6174A	30 June 2004	0.039	0.016	0.013	0.032
42	RAFIX019-6175A	30 June 2004	0.033	0.013	0.012	0.033
42	RAFIX019-6176A	30 June 2004	0.038	0.015	0.012	0.034
43	RAFIX019-6177A	1 July 2004	0.045	0.017	0.013	0.038
43	RAFIX019-6178A	1 July 2004	0.040	0.016	0.014	0.037
43	RAFIX019-6179A	1 July 2004	0.041	0.017	0.015	0.043
43	RAFIX019-6180A	1 July 2004	0.037	0.014	0.012	0.037
44	RAFIX019-6181A	2 July 2004	0.049	0.017	0.014	0.038
44	RAFIX019-6182A	2 July 2004	0.049	0.018	0.013	0.040
44	RAFIX019-6183A	2 July 2004	0.045	0.019	0.016	0.042
44	RAFIX019-6184A	2 July 2004	0.043	0.019	0.015	0.041
45	RAFIX019-6185A	3 July 2004	0.040	0.019	0.016	0.042
45	RAFIX019-6186A	3 July 2004	0.038	0.020	0.016	0.038
45	RAFIX019-6187A	3 July 2004	0.036	0.018	0.014	0.036
45	RAFIX019-6188A	3 July 2004	0.039	0.019	0.015	0.039
47	RAFIX019-6193A	5 July 2004	0.031	0.020	0.014	0.036
47	RAFIX019-6194A	5 July 2004	0.031	0.019	0.014	0.034
47	RAFIX019-6195A	5 July 2004	0.031	0.020	0.016	0.035
47	RAFIX019-6196A	5 July 2004	0.033	0.021	0.016	0.043
50	RAFIX019-6205A	8 July 2004	0.026	0.018	0.014	0.032
50	RAFIX019-6206A	8 July 2004	0.024	0.018	0.015	0.032
50	RAFIX019-6207A	8 July 2004	0.023	0.018	0.015	0.030
50	RAFIX019-6208A	8 July 2004	0.022	0.018	0.014	0.031
53	RAFIX019-6217A	11 July 2004	0.014	0.011	0.012	0.023

(continued; footnotes to follow)

Table XIII. (continued). 2004 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
53	RAFIX019-6218A	11 July 2004	0.015	0.014	0.013	0.021
53	RAFIX019-6219A	11 July 2004	0.015	0.015	0.014	0.024
53	RAFIX019-6220A	11 July 2004	0.015	0.013	0.013	0.024
59	RAFIX019-6241A	17 July 2004	ND	0.010	0.021	0.011
59	RAFIX019-6242A	17 July 2004	<LOQ (0.004)	0.010	0.014	<LOQ (0.008)
59	RAFIX019-6243A	17 July 2004	ND	0.010	0.018	0.010
59	RAFIX019-6244A	17 July 2004	ND	0.010	0.018	<LOQ (0.008)
60	RAFIX019-6245A	18 July 2004	ND	0.010	0.018	<LOQ (0.006)
60	RAFIX019-6246A	18 July 2004	ND	0.010	0.014	<LOQ (0.006)
60	RAFIX019-6247A	18 July 2004	<LOQ (0.004)	0.010	0.020	<LOQ (0.008)
60	RAFIX019-6248A	18 July 2004	ND	0.010	0.016	<LOQ (0.007)
62	RAFIX019-6253A	20 July 2004	ND	<LOQ (0.005)	0.014	<LOQ (0.005)
62	RAFIX019-6254A	20 July 2004	ND	ND	0.014	<LOQ (0.005)
62	RAFIX019-6255A	20 July 2004	ND	<LOQ (0.004)	0.014	<LOQ (0.006)
62	RAFIX019-6256A	20 July 2004	ND	<LOQ (0.004)	0.013	<LOQ (0.006)
69	RAFIX019-6281A	27 July 2004	ND	ND	0.010	ND
69	RAFIX019-6282A	27 July 2004	ND	<LOQ (0.004)	0.014	<LOQ (0.004)
69	RAFIX019-6283A	27 July 2004	ND	ND	<LOQ (0.009)	ND
69	RAFIX019-6284A	27 July 2004	ND	ND	0.010	ND
71	RAFIX019-6289A	29 July 2004	ND	<LOQ (0.004)	0.017	<LOQ (0.005)
71	RAFIX019-6290B	29 July 2004	ND	ND	0.013	<LOQ (0.004)
71	RAFIX019-6291A	29 July 2004	ND	<LOQ (0.004)	0.014	<LOQ (0.005)

(continued; footnotes to follow)

Table XIII. (continued). 2004 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
71	RAFIX019-6292A	29 July 2004	ND	ND	0.020	<LOQ (0.005)
74	RAFIX019-6301A	1 August 2004	ND	ND	<LOQ (0.008)	ND
74	RAFIX019-6302A	1 August 2004	ND	ND	<LOQ (0.009)	ND
74	RAFIX019-6303A	1 August 2004	ND	ND	0.012	ND
74	RAFIX019-6304A	1 August 2004	ND	ND	0.010	ND
77	RAFIX019-6313A	4 August 2004	ND	ND	0.014	<LOQ (0.004)
77	RAFIX019-6314A	4 August 2004	ND	ND	<LOQ (0.009)	<LOQ (0.004)
77	RAFIX019-6315A	4 August 2004	ND	ND	<LOQ (0.009)	<LOQ (0.004)
77	RAFIX019-6316A	4 August 2004	ND	ND	0.010	ND
80	RAFIX019-6325A	7 August 2004	ND	ND	<LOQ (0.009)	<LOQ (0.004)
80	RAFIX019-6326A	7 August 2004	ND	ND	0.011	<LOQ (0.006)
80	RAFIX019-6327A	7 August 2004	ND	ND	0.012	<LOQ (0.005)
80	RAFIX019-6328A	7 August 2004	0.057	ND	<LOQ (0.009)	<LOQ (0.006)
83	RAFIX019-6337A	10 August 2004	ND	ND	0.010	<LOQ (0.006)
83	RAFIX019-6338A	10 August 2004	ND	ND	0.010	<LOQ (0.006)
83	RAFIX019-6339A	10 August 2004	ND	ND	0.010	<LOQ (0.005)
83	RAFIX019-6340A	10 August 2004	<LOQ (0.004)	ND	<LOQ (0.009)	<LOQ (0.007)
90	RAFIX019-6365A	17 August 2004	<LOQ (0.004)	ND	0.017	<LOQ (0.008)
90	RAFIX019-6366A	17 August 2004	ND	ND	<LOQ (0.008)	ND
90	RAFIX019-6367A	17 August 2004	ND	ND	<LOQ (0.009)	<LOQ (0.005)

(continued; footnotes to follow)

Table XIII. (continued). 2004 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
90	RAFIX019-6368A	17 August 2004	ND	ND	<LOQ (0.009)	<LOQ (0.004)
100	RAFIX019-6405A	27 August 2004	ND	ND	<LOQ (0.007)	<LOQ (0.005)
100	RAFIX019-6406A	27 August 2004	ND	ND	<LOQ (0.007)	<LOQ (0.004)
100	RAFIX019-6407A	27 August 2004	ND	ND	<LOQ (0.008)	<LOQ (0.004)
100	RAFIX019-6408A	27 August 2004	<LOQ (0.006)	ND	<LOQ (0.007)	<LOQ (0.006)
119	RAFIX019-6409A	15 Sept 2004	ND	ND	<LOQ (0.005)	<LOQ (0.004)
119	RAFIX019-6410A	15 Sept 2004	ND	ND	<LOQ (0.005)	ND
119	RAFIX019-6411A	15 Sept 2004	ND	ND	<LOQ (0.005)	<LOQ (0.004)
119	RAFIX019-6412A	15 Sept 2004	ND	ND	<LOQ (0.006)	ND
144	RAFIX019-6413A	10 October 2004	ND	ND	<LOQ (0.004)	<LOQ (0.007)
144	RAFIX019-6414A	10 October 2004	ND	ND	ND	<LOQ (0.005)
144	RAFIX019-6415A	10 October 2004	ND	ND	<LOQ (0.004)	0.010
144	RAFIX019-6416A	10 October 2004	0.016	<LOQ (0.004)	<LOQ (0.006)	0.016
145	RAFIX019-6543A	11 October 2004	ND	ND	ND	<LOQ (0.007)
145	RAFIX019-6544A	11 October 2004	ND	ND	ND	0.010
145	RAFIX019-6545A	11 October 2004	<LOQ (0.004)	ND	<LOQ (0.004)	0.012
145	RAFIX019-6546A	11 October 2004	0.012	ND	<LOQ (0.005)	0.022
147	RAFIX019-6548A	13 October 2004	ND	ND	<LOQ (0.004)	0.012
147	RAFIX019-6549A	13 October 2004	ND	ND	<LOQ (0.004)	0.012
147	RAFIX019-6550A	13 October 2004	ND	ND	ND	0.011

(continued; footnotes to follow)

Table XIII. (continued). 2004 Analytical Results of Golf Course Pond Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
147	RAFIX019-6551A	13 October 2004	<LOQ (0.006)	ND	ND	0.010
150	RAFIX019-6553A	16 October 2004	<LOQ (0.009)	ND	ND	<LOQ (0.008)
150	RAFIX019-6554A	16 October 2004	<LOQ (0.006)	ND	<LOQ (0.005)	0.017
150	RAFIX019-6555A	16 October 2004	<LOQ (0.006)	ND	<LOQ (0.005)	0.014
150	RAFIX019-6556A	16 October 2004	ND	ND	ND	<LOQ (0.008)
153	RAFIX019-6557A	19 October 2004	ND	ND	ND	<LOQ (0.008)
153	RAFIX019-6558A	19 October 2004	<LOQ (0.005)	ND	<LOQ (0.005)	0.016
153	RAFIX019-6559A	19 October 2004	<LOQ (0.004)	ND	<LOQ (0.004)	0.011
153	RAFIX019-6560A	19 October 2004	ND	ND	<LOQ (0.004)	0.012
159	RAFIX019-6417A	25 October 2004	ND	ND	ND	<LOQ (0.006)
159	RAFIX019-6418A	25 October 2004	ND	ND	<LOQ (0.005)	0.010
159	RAFIX019-6419A	25 October 2004	ND	ND	<LOQ (0.004)	0.012
159	RAFIX019-6420A	25 October 2004	ND	ND	<LOQ (0.004)	0.010
177	RAFIX019-6421A	12 Nov 2004	ND	ND	ND	0.011
177	RAFIX019-6422A	12 Nov 2004	ND	ND	ND	0.010
177	RAFIX019-6423A	12 Nov 2004	ND	ND	ND	0.011
177	RAFIX019-6424A	12 Nov 2004	ND	ND	ND	0.012

[a] ND = nondetectable. The limits of quantification (LOQ) for all analytes = 0.010 ppb. The method limit of detection (MDL) for all analytes = 0.004 ppb.

Table XIV. 2004 Analytical Results of Golf Course Pond Overflow Water Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
10	RAFIX019-6436A	29 May 2004	0.071	<LOQ (0.004)	ND	0.011
12	RAFIX019-6438A	31 May 2004	0.164	0.012	<LOQ (0.004)	0.021
13	RAFIX019-6439A	1 June 2004	0.168	0.018	<LOQ (0.004)	0.023
15	RAFIX019-6441A	3 June 2004	0.111	0.027	<LOQ (0.005)	0.023
35	RAFIX019-6461A	23 June 2004	0.028	0.022	0.012	0.019
36	RAFIX019-6462A	24 June 2004	0.031	0.021	0.014	0.022
38	RAFIX019-6464A	26 June 2004	0.029	0.020	0.015	0.023
39	RAFIX019-6465A	27 June 2004	0.029	0.020	0.015	0.024
40	RAFIX019-6466A	28 June 2004	0.038	0.017	0.013	0.030
41	RAFIX019-6467A	29 June 2004	0.041	0.016	0.013	0.034
42	RAFIX019-6468A	30 June 2004	0.040	0.019	0.014	0.034
43	RAFIX019-6469A	01 July 2004	0.036	0.018	0.012	0.034
44	RAFIX019-6470A	02 July 2004	0.041	0.018	0.014	0.039
45	RAFIX019-6471A	03 July 2004	0.041	0.020	0.018	0.065
47	RAFIX019-6473A	05 July 2004	0.033	0.024	0.016	0.039
140	RAFIX019-6528A	06 October 2004	ND	ND	ND	<LOQ (0.005)
145	RAFIX019-6547A	11 October 2004	<LOQ (0.004)	ND	<LOQ (0.004)	0.011
147	RAFIX019-6552A	13 October 2004	ND	ND	ND	0.010

[a] ND = nondetectable. The limits of quantification (LOQ) for all analytes = 0.010 ppb. The method limit of detection (MDL) for all analytes = 0.004 ppb.

Table XII. 2003 Analytical Results of Golf Course Pond Sediment Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
Pre-Treatment	RAFIX019-5531A	22 May 2003	ND	ND	ND	ND
Pre-Treatment	RAFIX019-5532A	22 May 2003	ND	ND	ND	ND
Pre-Treatment	RAFIX019-5533A	22 May 2003	ND	ND	ND	ND
Pre-Treatment	RAFIX019-5534A	22 May 2003	ND	ND	0.129	ND
90	RAFIX019-5535A	20 August 2003	ND	0.034	0.103	0.069
90	RAFIX019-5536A	20 August 2003	ND	ND	0.061	ND
90	RAFIX019-5537A	20 August 2003	ND	ND	0.046	ND
90	RAFIX019-5538A	20 August 2003	ND	0.051	0.191	0.085
180	RAFIX019-5539A	18 Nov. 2003	ND	ND	0.031	ND
180	RAFIX019-5540A	18 Nov. 2003	ND	ND	ND	ND
180	RAFIX019-5541A	18 Nov. 2003	ND	ND	ND	ND
180	RAFIX019-5542A	18 Nov. 2003	ND	ND	ND	ND

[a] ND = nondetectable. The limits of quantification (LOQ) for all analytes = 0.10 ppb. The method limit of detection (MDL) for all analytes = 0.030 ppb.

Table XV. 2004 Analytical Results of Golf Course Pond Sediment Samples

Days After Application	Sample ID	Collection Date	Analytical Results (ppb) [a]			
			Fipronil	MB46513	MB45950	MB46136
Pre-Treatment	RAFIX019-6531B	19 May 2004	ND	ND	0.062	0.082
Pre-Treatment	RAFIX019-6532B	19 May 2004	ND	ND	ND	ND
Pre-Treatment	RAFIX019-6533B	19 May 2004	ND	ND	0.060	0.098
Pre-Treatment	RAFIX019-6534B	19 May 2004	ND	ND	0.048	0.068
90	RAFIX019-6535A	17 August 2004	ND	ND	0.065	0.057
90	RAFIX019-6536A	17 August 2004	ND	ND	ND	ND
90	RAFIX019-6537A	17 August 2004	ND	ND	ND	ND
90	RAFIX019-6538A	17 August 2004	ND	ND	0.031	ND
178	RAFIX019-6539A	12 Nov. 2004	ND	ND	ND	ND
178	RAFIX019-6540A	12 Nov. 2004	ND	ND	ND	ND
178	RAFIX019-6541A	12 Nov. 2004	ND	ND	ND	ND
178	RAFIX019-6542A	12 Nov. 2004	ND	ND	ND	ND

[a] ND = nondetectable. The limits of quantification (LOQ) for all analytes = 0.10 ppb. The method limit of detection (MDL) for all analytes = 0.030 ppb.