US EPA ARCHIVE DOCUMENT
Data Evaluation Report of Surface Water Monitoring Study

PMRA Submission Number {......}  
EPA MRID Number 46477003

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]-1H-pyrazole-3-carbonitrile

Primary Reviewer: James Hetrick, Ph.D.  
Signature:  
Date:

Secondary Reviewer: Thuy Nguyen  
Signature:  
Date:

EPA PC Code: 129121


EXECUTIVE SUMMARY: The study provides acceptable data on the edge-of-field runoff for fipronil residues for field corn in the Mid-Western United States. The study provides a probabilistic site selection process to represent a 1 year distribution of edge-of-field runoff of fipronil residues in the Mid-Western U.S. corn belt. These data indicate that the maximum edge-of-field concentration of fipronil residues range from 0 to 3,600 ng/L for fipronil, <10 to 13 ng/L for MB 46513, <10 to 165 ng/L for MB 46950, and <10 to 61 ng/L for MB 46136. Several sites had farm ponds for sample collection. The maximum concentration in pond water was 159 ng/L for fipronil and 24 ng/L for MB46513. MB 45950 and MB 46136 were not detected in the farm pond water. As expected, runoff of fipronil residues were correlated to precipitation. However, an analysis of the time series of fipronil concentrations on short time intervals (0 to 12 hours after runoff event) indicate a sinus curve of fipronil concentration independent of rainfall amounts. These fluctuations in concentrations appear to correspond to changes in volume and velocity of runoff waters.
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, 5-6).

A. MATERIALS:

B. MONITORING DESIGN:

Site Selection Process- Twenty monitoring sites were selected to represent runoff sites for fipronil use on field corn in the Mid-Western United States. Selection of runoff sites were based on county level GIS assessment of geographic location, 1980-1990 NRCS rainfall intensity (USLE R-factor), and kriged Regent® total sales data relative to potential sampling points on receiving waters. Selected monitoring sites had an appropriate hydrology to allow sampling of runoff points into surface water or a water channel flowing into surface water. The equation used for deriving a site vulnerability is as follows:

\[
\text{Vulnerability Ranking} = (\text{use lb/mile}^2) \times 0.01 \int (916 + 331 \times \log \text{USLE R factor (in/hr)})
\]

Site were selected to be statistically representative of regional populations of fields. Representative sites were selected according to allow appropriate local hydrology for monitoring edge-of-field runoff and surface water.

Field Treatment/Application- Selected field sites were amended with a single application of in-furrow fipronil (formulated as Regent®) at 4.16 ounces/A on field corn during planting in April or May. The fields in the monitoring study remained in corn production during the 2004 season. All monitoring sites required a 60 foot runoff buffer from the edge-of-field and monitoring site to be in accordance with the Regent® label. Farmers were allowed to make other maintenance pesticide applications.
Summary of Locations - Site locations were found in IL, KY, NE, IA, MN, MO, IN, MI, and OH. Information on each monitoring site is shown in Table 1.

<table>
<thead>
<tr>
<th>State</th>
<th>Site ID</th>
<th>Sampling Locations</th>
<th>Sampling Method</th>
<th>Total Acreage in Watershed</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL</td>
<td>IL3</td>
<td>edge-of-field</td>
<td>Grab/Auto</td>
<td>~58</td>
</tr>
<tr>
<td>IL</td>
<td>IL5</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~20</td>
</tr>
<tr>
<td>IL</td>
<td>IL6</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~37</td>
</tr>
<tr>
<td>IL</td>
<td>IL4</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~20</td>
</tr>
<tr>
<td>KY</td>
<td>KY4</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~14</td>
</tr>
<tr>
<td>NE</td>
<td>NE11</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~45</td>
</tr>
<tr>
<td>NE</td>
<td>NE5</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~44</td>
</tr>
<tr>
<td>NE</td>
<td>NE1</td>
<td>edge-of-field</td>
<td>Siphon/Auto</td>
<td>~50</td>
</tr>
<tr>
<td>IA</td>
<td>IA9</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~24</td>
</tr>
<tr>
<td>IA</td>
<td>IA10</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~23</td>
</tr>
<tr>
<td>MN</td>
<td>MN1</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~48</td>
</tr>
<tr>
<td>MO</td>
<td>MO4</td>
<td>Pond</td>
<td>Grab</td>
<td>~60</td>
</tr>
<tr>
<td>IN</td>
<td>IN7</td>
<td>Ditch</td>
<td>Grab/Siphon/Auto</td>
<td>~55</td>
</tr>
<tr>
<td>IN</td>
<td>IN8</td>
<td>Ditch</td>
<td>Grab/Siphon</td>
<td>~66</td>
</tr>
<tr>
<td>IN</td>
<td>IN10</td>
<td>Pond</td>
<td>Grab/Siphon</td>
<td>~21</td>
</tr>
<tr>
<td>IN</td>
<td>IN12</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~15</td>
</tr>
<tr>
<td>IN</td>
<td>IN13</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~27</td>
</tr>
<tr>
<td>MI</td>
<td>MI3</td>
<td>edge-of-field</td>
<td>Grab/Siphon/Auto</td>
<td>~85</td>
</tr>
<tr>
<td>OH</td>
<td>OH3</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~31</td>
</tr>
<tr>
<td>OH</td>
<td>OH4</td>
<td>edge-of-field</td>
<td>Grab/Siphon</td>
<td>~30</td>
</tr>
</tbody>
</table>
SAMPLING AND ANALYTICAL METHODS:

Sampling Methods-

Three sampling methods were used in the study including grab sample, siphon sample, and automatic sample collection. Siphon collection employed a simple siphon bottle with an inlet port for surface water and exhaust port for displaced air. Automatic sampling was conducted using a fraction collector connected to a peristaltic pump. Water samples were taken at triplicate, sequential time intervals of 2, 5, 10, 30, 45 minutes; and 1, 2, and 4 hours.

Analytical Methods-

Analytical methods were designed to determine concentrations of fipronil, MB 45950, MB 46513, and MB 46136. Water samples collected at each site were kept cooled and then shipped via overnight courier to the BASF laboratory. At the laboratory, the samples were frozen and stored (< - 5°C) prior to analysis. Samples were initially analyzed using an analytical method by Bayer\(^1\). The method limit or quantification is 10 ng/L (10 ppt) and the limit of detection is 2 ng/L (2 ppt). Frozen samples were thawed, shaken vigorously and filtered. Acetonitrile was added to each sample prior to chemical analysis. Samples were analyzed using LC/MS/MS in negative ion mode.

BASF modified the Bayer analytical method to account for turbidity of surface waters. Water samples were shaken vigorously prior to sampling. A 5 ml aliquot was removed and then filtered through a 4.5 µm teflon filter. An aliquot of the filtered extract was spiked with acetonitrile and then analyzed using HPLC-MS/MS. LC-MS/MS analysis was based on the following transitions m/z 434.9-330.0 for fipronil, m/z 386.9-351 for MB46513, m/z 418.9 - 383.1 for MB 45950, and m/z 450.9 - 415 for MB46136. Because the Bayer analytical method was modified during study, several samples were not be analyzed using the new BASF method due to destructive sample extraction method. Sample recoveries from fortified surface water at 10 ng/L are as follows: 99±15 % for fipronil, 86± 9 % for MB46513, 82±7 % for MB45950, and 60±4 % for MB46136. Procedural recoveries in HPLC water range from 91 to 104 % for fipronil, 84 to 97 % for MB46513, 71 to 86% for MB45950, and 63 to 82% for MB46136.

Calculation of Compound Edge of Field Loss

Equations used for estimating mass of fipronil loss and % of runoff are as follows:

\[
\text{µg Lost} = \text{runoff volume (inches)/12 (inches)* 1233531 L/ac ft* concentration (µg/L)}
\]

\(^1\) "Insecticides, Fipronil: Method of Analysis for possible Residues of Fipronil, MB46513, MB45950, and MB46136 in Water-Revision 4" Issued May 21, 2002.
% edge of field loss = μg/ac applied/μg lost* 100 (This equation should be reversed.)

II. RESULTS AND DISCUSSION:

A. Rainfall totals in the month of April were generally below historical rainfall totals for 1971-2000 rainfall data from the Parameter-elevation Regressions on Independent Slopes Model (PRISM grids) (Figure 26). In contrast, rainfall totals in the month of May were above historical rainfall totals. Therefore, monitoring sites planted in April were exposed to lower runoff conditions compared to sites planted in May.

B. Peak runoff concentrations for fipronil residues are shown in Table 2. The maximum edge of field concentration in runoff water was 3600 ng/L for fipronil, 216 ng/L for MB46513, 165 ng/L for MB 45950, and 218 ng/L for MB 46136. The maximum fipronil loss accounted for 0.761% of applied fipronil. Complete data set summaries are shown in Tables 5 to 24.

<table>
<thead>
<tr>
<th>State</th>
<th>Site ID</th>
<th>Fipronil</th>
<th>MB46513</th>
<th>MB 45950</th>
<th>MB 46136</th>
<th>Total edge-of field runoff % of applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL</td>
<td>IL3</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
</tr>
<tr>
<td>IL</td>
<td>IL5</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
</tr>
<tr>
<td>IL</td>
<td>IL6</td>
<td>65</td>
<td>&lt;10</td>
<td>12</td>
<td>49</td>
<td>0.028</td>
</tr>
<tr>
<td>IL</td>
<td>IL4</td>
<td>1038</td>
<td>&lt;10</td>
<td>12</td>
<td>53</td>
<td>0.068</td>
</tr>
<tr>
<td>KY</td>
<td>KY4</td>
<td>648</td>
<td>14</td>
<td>13</td>
<td>53</td>
<td>0.34</td>
</tr>
<tr>
<td>NE</td>
<td>NE11</td>
<td>38</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.013</td>
</tr>
<tr>
<td>NE</td>
<td>NE5</td>
<td>3600</td>
<td>167</td>
<td>165</td>
<td>218</td>
<td>0.761</td>
</tr>
<tr>
<td>NE</td>
<td>NE1</td>
<td>665</td>
<td>21</td>
<td>&lt;10</td>
<td>38</td>
<td>0.152</td>
</tr>
<tr>
<td>IA</td>
<td>IA9</td>
<td>226</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>43</td>
<td>0.35</td>
</tr>
<tr>
<td>IA</td>
<td>IA10</td>
<td>226</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>49</td>
<td>0.133</td>
</tr>
<tr>
<td>MN</td>
<td>MN1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
</tr>
<tr>
<td>MO</td>
<td>MO4</td>
<td>159</td>
<td>11</td>
<td>21</td>
<td>61</td>
<td>0.095</td>
</tr>
<tr>
<td>IN</td>
<td>IN7</td>
<td>203</td>
<td>29</td>
<td>&lt;10</td>
<td>17</td>
<td>0.027</td>
</tr>
<tr>
<td>IN</td>
<td>IN8</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>24</td>
<td>0.0</td>
</tr>
</tbody>
</table>
C. There was no consistent management practice among monitoring sites that appear to increase runoff of fipronil (Table 25). Management practices among the monitoring sites generally consisted of side dressed N fertilization or cultivation for weed control.

D. Fipronil loss generally corresponded to rainfall patterns with highest loss occurring with maximum rainfall amounts (Figures 27 and 43; Figure 46). However, an analysis of time series of fipronil concentrations on short time intervals (0 to 12 hours after runoff event) indicate a sinus curve of fipronil concentration independent of rainfall amounts (Figures 48, 49 and 50). These fluctuations in concentrations appear to correspond to changes in volume and velocity of runoff waters.

F. Several of the monitoring sites (IL3, MO4, IN10) had farm ponds as a collection point for monitoring fipronil residue concentrations in the ponds. The maximum concentration in pond water was 159 ng/L for fipronil and 24 ng/L for MB46513. MB 45950 and MB 46136 were not detected in the farm pond water.

III. STUDY DEFICIENCIES:

A. The general monitoring study design is excellent. The reviewer notes that a single year of monitoring is not be sufficient to represent variability in rainfall occurrence.

IV. REVIEWER’S COMMENTS:

A. The reviewer complements the registrant’s attempt to provide probabilistic context to the edge-of-field monitoring data.
Figure 26. Summary of rainfall during the month of May at the twenty sites.

Sample designation used in the summary tables are summarized below.

1. G1, G2 - grab sample rep 1 and rep 2
2. A, B, C - siphon samples 1st, 2nd, and 3rd (height 1, 2 and 3)
3. B1-B24 - autosampler samples 1 through a maximum of 24
4. P1 - sampling point 1
5. E01 - runoff event 1
Table 5. Fipronil edge of field loss summary for the Iowa 9 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA9 P1E01G2</td>
<td>73</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>73</td>
<td>1.65</td>
<td>0.073</td>
<td>0.021</td>
<td>0.021</td>
<td>12,381.6</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>IA9 P1E02G2</td>
<td>198</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>15</td>
<td>1.1</td>
<td>0.198</td>
<td>0.038</td>
<td>0.038</td>
<td>22,388.6</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>IA9 P1E03A</td>
<td>183</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>17</td>
<td></td>
<td>0.183</td>
<td>0.135</td>
<td>0.144</td>
<td>79,572.0</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>IA9 P1E03B</td>
<td>178</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>18</td>
<td>4.23</td>
<td>0.178</td>
<td>0.131</td>
<td>0.144</td>
<td>77,397.9</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>IA9 P1E03C</td>
<td>224</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>21</td>
<td></td>
<td>0.224</td>
<td>0.165</td>
<td>0.144</td>
<td>97,399.6</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>IA9 P1E04A</td>
<td>480</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>33</td>
<td>529</td>
<td>0.48</td>
<td>0.074</td>
<td>0.081</td>
<td>43,420.3</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>IA9 P1E04B</td>
<td>578</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>35</td>
<td></td>
<td>0.578</td>
<td>0.089</td>
<td>0.089</td>
<td>52,285.3</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>IA9 P1E07A</td>
<td>226</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>43</td>
<td>214.5</td>
<td>0.83</td>
<td>0.226</td>
<td>0.033</td>
<td>91,282.2</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>IA9 P1E07B</td>
<td>203</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>35</td>
<td></td>
<td>0.203</td>
<td>0.029</td>
<td>0.031</td>
<td>91,319.8</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>IA9 P1E08G1</td>
<td>123</td>
<td>&lt;10</td>
<td>13</td>
<td>29</td>
<td>123.00</td>
<td>1.3</td>
<td>0.123</td>
<td>0.028</td>
<td>16,436.8</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>IA9 P1E09G1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>6.5</td>
<td>2.52</td>
<td>0</td>
<td>0</td>
<td>0.0065</td>
<td>0</td>
<td>1.5</td>
<td>24</td>
</tr>
<tr>
<td>IA9 P1E09A</td>
<td>13</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td></td>
<td>0.013</td>
<td>0.006</td>
<td>0.006</td>
<td>3,367.5</td>
<td>1.5</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

Soil Texture = silty clay loam
Mean edge of field loss = 0.053%
Total edge of field loss = 0.35%
<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA10 P1E01G2</td>
<td>130</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>193.67</td>
<td>1.22</td>
<td>0.13</td>
<td>0.028</td>
<td>0.041</td>
<td>16,303.2</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E01A</td>
<td>225</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>193.67</td>
<td>1.22</td>
<td>0.225</td>
<td>0.048</td>
<td>0.041</td>
<td>28,217.0</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E01B</td>
<td>226</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>53.50</td>
<td>3.88</td>
<td>0.087</td>
<td>0.059</td>
<td>0.036</td>
<td>34,699.2</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E02A</td>
<td>87</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>61.50</td>
<td>2.58</td>
<td>0.02</td>
<td>0.014</td>
<td>0.028</td>
<td>7,976.8</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E03G2</td>
<td>59</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>61.50</td>
<td>2.58</td>
<td>0.059</td>
<td>0.027</td>
<td>0.028</td>
<td>15,647.3</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E03C</td>
<td>64</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>61.50</td>
<td>2.58</td>
<td>0.064</td>
<td>0.029</td>
<td>0.028</td>
<td>16,973.4</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E04G1</td>
<td>29</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>19.75</td>
<td>5.7</td>
<td>0.029</td>
<td>0.029</td>
<td>0.020</td>
<td>16,991.9</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E04A</td>
<td>29</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>19.75</td>
<td>5.7</td>
<td>0.029</td>
<td>0.029</td>
<td>0.020</td>
<td>16,991.9</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E04B</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>19.75</td>
<td>5.7</td>
<td>0</td>
<td>0.000</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E04C</td>
<td>21</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>19.75</td>
<td>5.7</td>
<td>0.021</td>
<td>0.021</td>
<td>0.008</td>
<td>12,304.5</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E05G1</td>
<td>45</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>24.67</td>
<td>1.92</td>
<td>0.045</td>
<td>0.015</td>
<td>0.008</td>
<td>8,881.4</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E05B</td>
<td>29</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>24.67</td>
<td>1.92</td>
<td>0.029</td>
<td>0.010</td>
<td>0.008</td>
<td>5,723.6</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>IA10 P1E05C</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>24.67</td>
<td>1.92</td>
<td>0</td>
<td>0.000</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>23</td>
</tr>
</tbody>
</table>

Soil Texture = silt loam  
Mean edge of field loss = 0.027%  
Total edge of field loss = 0.133%
Table 7. Fipronil edge of field loss summary for the Illinois 3 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513</th>
<th>MB 45950</th>
<th>MB 46136</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-IL3P1E01G1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>2.16</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>6</td>
<td>58</td>
</tr>
</tbody>
</table>

p-pond
Soil Texture = silt loam
Mean edge of field loss = 0.0%
Total edge of field loss = 0.0%

Table 8. Fipronil edge of field loss summary for the Illinois 4 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513</th>
<th>MB 45950</th>
<th>MB 46136</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL4P1E01A</td>
<td>57</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.057</td>
<td>0.057</td>
<td>0.014</td>
<td>8,203.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL4P1E01B</td>
<td>34</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.034</td>
<td>0.034</td>
<td>0.008</td>
<td>4,893.0</td>
<td>2.5</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL4P1E01C</td>
<td>11</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.011</td>
<td>0.011</td>
<td>0.003</td>
<td>1,583.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL4P2E01A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL4P2E01B</td>
<td>15</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.015</td>
<td>0.015</td>
<td>0.004</td>
<td>2,158.7</td>
<td>2.5</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL4P2E01C</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL4P3E01A</td>
<td>565</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.565</td>
<td>0.565</td>
<td>0.138</td>
<td>81,310.3</td>
<td>2.5</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL4P3E01B</td>
<td>1038</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;12</td>
<td>1.038</td>
<td>1.038</td>
<td>0.253</td>
<td>149,380.7</td>
<td>3.4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Event Average loss 0.068

Soil Texture = silt loam
Mean edge of field loss = 0.023%
Total edge of field loss = 0.068%
Table 9. Fipronil edge of field loss summary for the Illinois 5 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45956 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL5P1E01A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>12.5</td>
</tr>
<tr>
<td>IL5P1E01B</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>1.4</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01C</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>12.5</td>
</tr>
<tr>
<td>IL5P2E01A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P2E01B</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.1</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P2E01C</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>1.4</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>12.5</td>
</tr>
<tr>
<td>IL5P1E01B2</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B3</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B4</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B5</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B6</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B7</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B8</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B9</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B10</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B11</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B12</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B13</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B14</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B15</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B16</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B17</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B18</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>IL5P1E01B19</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Sample ID</td>
<td>FIPRONIL (ppt)</td>
<td>MB 46513 (ppt)</td>
<td>MB 45950 (ppt)</td>
<td>MB 46136 (ppt)</td>
<td>Sample Avg. (ug)</td>
<td>Rain Event (in)</td>
<td>Concentration (ug/L)</td>
<td>%Loss</td>
<td>Average % Loss</td>
<td>ug Lost</td>
<td>Slope (%)</td>
<td>Drainage Area (ac)</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>------------------</td>
<td>-----------------</td>
<td>----------------------</td>
<td>-------</td>
<td>---------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>IL5P1E01B20</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IL5P1E01B21</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IL5P1E01B22</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IL5P1E01B23</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IL5P1E01B24</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IL5P1E02A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.1</td>
<td>0</td>
<td>0.000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IL5P1E02B</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>0.1</td>
<td>0.000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IL5P1E02C</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.1</td>
<td>0</td>
<td>0.000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Soil Texture = silt loam
Mean edge of field loss = 0.0%
Total edge of field loss = 0.0%

Table 10. Fipronil edge of field loss summary for the Illinois 6 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL6P1E02G2</td>
<td>26</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>45.50</td>
<td>0.48</td>
<td>0.026</td>
<td>0.002</td>
<td>0.004</td>
<td>1,282.9</td>
<td>1.5</td>
<td>36</td>
</tr>
<tr>
<td>IL6P1E02A</td>
<td>65</td>
<td>&lt;10</td>
<td>12</td>
<td>45</td>
<td>45.50</td>
<td>0.48</td>
<td>0.065</td>
<td>0.005</td>
<td>0.004</td>
<td>3,207.2</td>
<td>1.5</td>
<td>36</td>
</tr>
<tr>
<td>IL6P1E03A</td>
<td>41</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>20</td>
<td>37.67</td>
<td>3.68</td>
<td>0.041</td>
<td>0.026</td>
<td>0.028</td>
<td>15,509.6</td>
<td>1.5</td>
<td>36</td>
</tr>
<tr>
<td>IL6P1E03B</td>
<td>33</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>26</td>
<td>37.67</td>
<td>3.68</td>
<td>0.033</td>
<td>0.024</td>
<td>0.025</td>
<td>12,483.3</td>
<td>1.5</td>
<td>36</td>
</tr>
<tr>
<td>IL6P1E03C</td>
<td>39</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>27</td>
<td>37.67</td>
<td>3.68</td>
<td>0.039</td>
<td>0.025</td>
<td>0.028</td>
<td>14,753.0</td>
<td>1.5</td>
<td>36</td>
</tr>
</tbody>
</table>

Soil Texture = silt loam
Mean edge of field loss = 0.014%
Total edge of field loss = 0.028%
Table 11. Fipronil edge of field loss summary for the Indiana 7 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL Concentration (ug/L)</th>
<th>Rain Event Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN7P1E00G2</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>IN7P1E01G2</td>
<td>0.00</td>
<td>0.53</td>
<td>0.53</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>IN7P1E02G2</td>
<td>203</td>
<td>0.75</td>
<td>0.75</td>
<td>0.027</td>
<td>0.027</td>
<td>15,650.4</td>
<td>1</td>
</tr>
<tr>
<td>IN7P1E04G2</td>
<td>0.00</td>
<td>2.18</td>
<td>2.18</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>IN7P1E07A</td>
<td>0.00</td>
<td>2.44</td>
<td>2.44</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>IN7P1E08G1</td>
<td>0.00</td>
<td>1.86</td>
<td>1.86</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>IN7P1E09G1</td>
<td>0.00</td>
<td>0.69</td>
<td>0.69</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>IN7P1E09A</td>
<td>0.00</td>
<td>0.69</td>
<td>0.69</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>IN7P1E10G1</td>
<td>0.00</td>
<td>1.40</td>
<td>1.40</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>IN7P1E10A</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>1</td>
</tr>
</tbody>
</table>

Soil Texture = silt loam
Mean edge of field loss = 0.005%
Total edge of field loss = 0.027%
Table 12. Fipronil edge of field loss summary for the Indiana 8 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN8P2E02A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>2.18</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>61</td>
</tr>
<tr>
<td>IN8P1E02A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>2.18</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E02B</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B2</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B3</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B4</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B5</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B6</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B7</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B8</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B9</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B10</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B11</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B12</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B13</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B14</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B15</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B16</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B17</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B18</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B19</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B20</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B21</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B22</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IN8P1E02B23</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.18</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Sample ID</td>
<td>FIPRONIL (ppt)</td>
<td>MB 46513 (ppt)</td>
<td>MB 45950 (ppt)</td>
<td>MB 46136 (ppt)</td>
<td>Sample Avg. (ug)</td>
<td>Rain Event (in)</td>
<td>Concentration (ug/L)</td>
<td>%Loss</td>
<td>Average % Loss</td>
<td>ug Lost</td>
<td>Slope (%)</td>
<td>Drainage Area (ac)</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>---------------------</td>
<td>-------</td>
<td>--------------</td>
<td>--------</td>
<td>------------</td>
<td>------------------</td>
</tr>
<tr>
<td>IN8P1E02B24</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>2.18 0</td>
<td>0</td>
<td>0.00</td>
<td>0.4</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P2E03A</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>2.47 0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04A</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B1</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B2</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B3</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B4</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B5</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B6</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B7</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B8</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B9</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B10</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B11</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B12</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B13</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04B14</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P2E04A</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0.0 2.47</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E04A</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0.0 2.47</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P2E05A</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0.0 1.86</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E05A</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0.0 1.86</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P2E06A</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0.0 0.69</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E06A</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0.0 0.69</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P2E07A</td>
<td>0 &lt;10 &lt;10 24</td>
<td>0.0 2</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E07A</td>
<td>0 &lt;10 &lt;10 13</td>
<td>0.0 2</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN8P1E07B</td>
<td>0 &lt;10 &lt;10 &lt;10</td>
<td>0.0 2</td>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample ID</td>
<td>FIPRONIL (ppt)</td>
<td>MB 46513 (ppt)</td>
<td>MB 45950 (ppt)</td>
<td>MB 46136 (ppt)</td>
<td>Sample Avg. (ug)</td>
<td>Rain Event (in)</td>
<td>Concentration (ug/L)</td>
<td>%Loss</td>
<td>Average % Loss</td>
<td>ug Lost</td>
<td>Slope (%)</td>
<td>Drainage Area (ac)</td>
</tr>
<tr>
<td>------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>------------------</td>
<td>----------------</td>
<td>----------------------</td>
<td>-------</td>
<td>---------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>IN8P1E07B1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B2</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B3</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B4</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B5</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B6</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B7</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B8</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B9</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B10</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B11</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>IN8P1E07B12</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.0</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>3</td>
<td>64</td>
</tr>
</tbody>
</table>

Soil Texture = sand
Mean edge of field loss = 0.0%
Total edge of field loss = 0.0%
Table 13. Fipronil edge of field loss summary for the Indiana 10 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN10P2E01G2</td>
<td>41</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>41</td>
<td>0.92</td>
<td>0.041</td>
<td>0.007</td>
<td>0.007</td>
<td>3,877.4</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>IN10P3E01G2</td>
<td>116</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>116</td>
<td>0.92</td>
<td>0.116</td>
<td>0.019</td>
<td>0.019</td>
<td>10,970.2</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN10P2E02G2</td>
<td>137</td>
<td>14</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>137</td>
<td>3.01</td>
<td>0.137</td>
<td>0.072</td>
<td>0.072</td>
<td>42,389.3</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>IN10P3E02G2</td>
<td>410</td>
<td>18</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>410</td>
<td>3.01</td>
<td>0.41</td>
<td>0.215</td>
<td>0.215</td>
<td>126,858.4</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN10P2E03G1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>23.3</td>
<td>3.38</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>IN10P2E03A</td>
<td>40</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>30</td>
<td>3.38</td>
<td>0.04</td>
<td>0.024</td>
<td>0.014</td>
<td>13,897.8</td>
<td>10,423.3</td>
<td></td>
</tr>
<tr>
<td>IN10P2E03B</td>
<td>30</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>28</td>
<td>3.38</td>
<td>0.03</td>
<td>0.018</td>
<td>0.018</td>
<td>9,728.5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>IN10P3E03A</td>
<td>28</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>13</td>
<td>21.67</td>
<td>3.38</td>
<td>0.028</td>
<td>0.028</td>
<td>8,338.7</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>IN10P3E03B</td>
<td>24</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>24</td>
<td>3.38</td>
<td>0.024</td>
<td>0.014</td>
<td>0.014</td>
<td>4,516.8</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>IN10P3E03G1</td>
<td>13</td>
<td>26</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>13</td>
<td>3.38</td>
<td>0.013</td>
<td>0.008</td>
<td>0.008</td>
<td>4,516.8</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

Field Averaged Event loss

- IN10P2E02G2 0.013
- IN10P3E02G2 0.18

Field Averaged Event loss

- IN10P2E03G1 0.012
- IN10P2E03A 0.014
- IN10P2E03B 0.015
- IN10P3E03A 0.016
- IN10P3E03B 0.014
- IN10P3E03G1 0.008

p - pond
Soil Texture = silt loam
Mean edge of field loss = 0.068%
Total edge of field loss = 0.205%
<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN12P1E06A</td>
<td>30</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>16</td>
<td>0.03</td>
<td>0.011</td>
<td>0.017</td>
<td>20,171.3</td>
<td>6,506.9</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E06B</td>
<td>60</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>55.33</td>
<td>2.11</td>
<td>0.093</td>
<td>0.034</td>
<td>9,326.5</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E06C</td>
<td>43</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>18</td>
<td>0.043</td>
<td>0.016</td>
<td>0.004</td>
<td>4,502.4</td>
<td>4,502.4</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E07A</td>
<td>60</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>30.00</td>
<td>0.73</td>
<td>0.06</td>
<td>0.008</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IN12P1E07B</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.004</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IN12P1E08A</td>
<td>29</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.029</td>
<td>0.006</td>
<td>0.005</td>
<td>2,600.7</td>
<td>3,279.1</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E08B</td>
<td>23</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>25.67</td>
<td>1.1</td>
<td>0.023</td>
<td>0.004</td>
<td>2,826.8</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E09A</td>
<td>30</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.03</td>
<td>0.008</td>
<td>0.007</td>
<td>2,017.9</td>
<td>4,656.6</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E09B</td>
<td>13</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>26.00</td>
<td>1.51</td>
<td>0.013</td>
<td>0.003</td>
<td>5,432.7</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E09C</td>
<td>35</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.025</td>
<td>0.005</td>
<td>0.005</td>
<td>3,324.4</td>
<td>3,324.4</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E10A</td>
<td>42</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.042</td>
<td>0.006</td>
<td>0.005</td>
<td>2,295.4</td>
<td>3,324.4</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E10B</td>
<td>42</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>37.67</td>
<td>0.77</td>
<td>0.042</td>
<td>0.006</td>
<td>1,167.7</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E10C</td>
<td>29</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.029</td>
<td>0.004</td>
<td>0.002</td>
<td>1,459.7</td>
<td>948.8</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E11A</td>
<td>16</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>17</td>
<td>16.33</td>
<td>0.71</td>
<td>0.016</td>
<td>0.002</td>
<td>1,854.4</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E11B</td>
<td>20</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>31</td>
<td>0.013</td>
<td>0.002</td>
<td>0.002</td>
<td>927.2</td>
<td>927.2</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E11C</td>
<td>13</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>20</td>
<td>0.022</td>
<td>0.003</td>
<td>0.002</td>
<td>1,264.4</td>
<td>1,264.4</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>Sample ID</td>
<td>FIPRONIL (ppt)</td>
<td>MB 46513 (ppt)</td>
<td>MB 45950 (ppt)</td>
<td>MB 46136 (ppt)</td>
<td>Sample Avg. (ug)</td>
<td>Rain Event Concentration (ug/L)</td>
<td>%Loss</td>
<td>Average % Loss</td>
<td>ug Lost</td>
<td>Slope (%)</td>
<td>Drainage Area (ac)</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>-----------------</td>
<td>---------------------------------</td>
<td>-------</td>
<td>----------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>IN12P1E13G1</td>
<td>16</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td></td>
<td>0.016</td>
<td>0.008</td>
<td></td>
<td>4,934.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN12P1E13A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>7.50</td>
<td>3</td>
<td>0.000</td>
<td>0.004</td>
<td>0.0</td>
<td>8.5</td>
<td>15</td>
</tr>
<tr>
<td>IN12P1E13B</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td></td>
<td>0</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN12P1E13C</td>
<td>14</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td></td>
<td>0.014</td>
<td>0.007</td>
<td></td>
<td>4,317.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Soil Texture = silt loam  
Mean edge of field loss = 0.006%  
Total edge of field loss = 0.046%
Table 15. Fipronil edge of field loss summary for the Indiana 13 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN13P2E02C</td>
<td>308</td>
<td>11</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>308.00</td>
<td>0.75</td>
<td>0.308</td>
<td>0.040</td>
<td>0.040</td>
<td>23,745.5</td>
<td>3.5</td>
<td>13</td>
</tr>
<tr>
<td>IN13P1E05A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>0.89</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>3.5</td>
<td>13</td>
</tr>
<tr>
<td>IN13P1E06A</td>
<td>154</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>11</td>
<td>154.00</td>
<td>2.11</td>
<td>0.154</td>
<td>0.057</td>
<td>0.057</td>
<td>33,402.0</td>
<td>3.5</td>
<td>13</td>
</tr>
<tr>
<td>IN13P1E07A</td>
<td>44</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>21</td>
<td>44.00</td>
<td>1.1</td>
<td>0.044</td>
<td>0.008</td>
<td>0.008</td>
<td>4,975.2</td>
<td>3.5</td>
<td>13</td>
</tr>
<tr>
<td>IN13P1E08A</td>
<td>95</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>95.00</td>
<td>1.51</td>
<td>0.095</td>
<td>0.025</td>
<td>0.025</td>
<td>14,745.8</td>
<td>3.5</td>
<td>13</td>
</tr>
<tr>
<td>IN13P2E08A</td>
<td>49</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>49.00</td>
<td>0.049</td>
<td>0.013</td>
<td>0.013</td>
<td>7,605.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Event Average loss: 0.019

Soil Texture = silt loam
Mean edge of field loss = 0.020%
Total edge of field loss = 0.162%
Table 16. Fipronil edge of field loss summary for the Kentucky 4 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRINOL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KY4P1E01G2</td>
<td>645</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>648</td>
<td>648.00</td>
<td>2.52</td>
<td>0.648</td>
<td>0.284</td>
<td>0.284</td>
<td>167,859.0</td>
</tr>
<tr>
<td>KY4P1E02G1</td>
<td>52 (14)</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>52</td>
<td>52.00</td>
<td>0.55</td>
<td>0.052</td>
<td>0.005</td>
<td>0.005</td>
<td>2,939.9</td>
</tr>
<tr>
<td>KY4P1E03G1</td>
<td>69</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>43</td>
<td>89.00</td>
<td>0.9</td>
<td>0.089</td>
<td>0.014</td>
<td>0.014</td>
<td>8,233.8</td>
</tr>
<tr>
<td>KY4P2E03G1</td>
<td>72</td>
<td>&lt;10</td>
<td>11</td>
<td>32</td>
<td>72.00</td>
<td>0.9</td>
<td>0.072</td>
<td>0.011</td>
<td>0.011</td>
<td>6,661.1</td>
</tr>
<tr>
<td>KY4P3E03G1</td>
<td>53</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>35</td>
<td>53.00</td>
<td>0.9</td>
<td>0.053</td>
<td>0.008</td>
<td>0.008</td>
<td>4,903.3</td>
</tr>
</tbody>
</table>

Field Event Average loss: 0.011

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRINOL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KY4P1E04G1</td>
<td>112</td>
<td>&lt;10</td>
<td>12</td>
<td>53</td>
<td>112.00</td>
<td>2.1</td>
<td>0.112</td>
<td>0.041</td>
<td>0.041</td>
<td>24,177.2</td>
</tr>
<tr>
<td>KY4P2E04G1</td>
<td>111</td>
<td>10</td>
<td>11</td>
<td>52</td>
<td>111.00</td>
<td>2.1</td>
<td>0.111</td>
<td>0.041</td>
<td>0.041</td>
<td>23,961.3</td>
</tr>
<tr>
<td>KY4P3E04G1</td>
<td>126</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>29</td>
<td>126.00</td>
<td>2.1</td>
<td>0.126</td>
<td>0.046</td>
<td>0.046</td>
<td>27,199.4</td>
</tr>
</tbody>
</table>

Field Event Average loss: 0.043

Soil Texture = silt loam
Mean edge of field loss = 0.086%
Total edge of field loss = 0.34%
Table 17. Fipronil edge of field loss summary for the Michigan 3 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI3P2E01G2</td>
<td>(305)</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>(11)</td>
<td>305.00</td>
<td>1.85</td>
<td>0.305</td>
<td>0.098</td>
<td>0.098</td>
<td>58,001.7</td>
<td>1.5</td>
<td>60</td>
</tr>
<tr>
<td>MI3P1E01B1</td>
<td>101</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.101</td>
<td>0.033</td>
<td>19,207.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E01B2</td>
<td>49</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.049</td>
<td>0.016</td>
<td>9,318.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E01B3</td>
<td>97</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>11</td>
<td>0.097</td>
<td>0.031</td>
<td>18,446.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E01B4</td>
<td>48</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.048</td>
<td>0.015</td>
<td>9,128.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E01B5</td>
<td>27</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>67.44</td>
<td>1.85</td>
<td>0.027</td>
<td>0.009</td>
<td>0.022</td>
<td>5,134.6</td>
<td>1.5</td>
<td>26</td>
</tr>
<tr>
<td>MI3P1E01B6</td>
<td>151</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.151</td>
<td>0.049</td>
<td>28,715.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E01B7</td>
<td>59</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.059</td>
<td>0.019</td>
<td>11,220.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E01B8</td>
<td>42</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.042</td>
<td>0.014</td>
<td>7,987.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E01B9</td>
<td>33</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.033</td>
<td>0.011</td>
<td>6,275.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P2E02A</td>
<td>(114)</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>11</td>
<td>164.93</td>
<td>1.18</td>
<td>0.114</td>
<td>0.023</td>
<td>0.016</td>
<td>13,827.9</td>
<td>1.5</td>
<td>60</td>
</tr>
<tr>
<td>MI3P2E02B</td>
<td>39</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.039</td>
<td>0.008</td>
<td>4,730.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E02B1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>(15)</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E02B2</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>14</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E02B3</td>
<td>31</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.031</td>
<td>0.006</td>
<td>3,760.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E02B4</td>
<td>44</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>13</td>
<td>24.86</td>
<td>1.18</td>
<td>0.044</td>
<td>0.009</td>
<td>0.005</td>
<td>5,337.1</td>
<td>1.5</td>
<td>26</td>
</tr>
<tr>
<td>MI3P1E02B5</td>
<td>21</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.021</td>
<td>0.004</td>
<td>2,547.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E02B6</td>
<td>47</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>11</td>
<td>0.047</td>
<td>0.010</td>
<td>5,701.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI3P1E02B7</td>
<td>31</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.031</td>
<td>0.006</td>
<td>3,760.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Event Average loss 0.060

Field Event Average loss 0.011
<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI3P2E03A</td>
<td>61</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>25</td>
<td>0.7</td>
<td>0.061</td>
<td>0.007</td>
<td>4,389.3</td>
<td></td>
<td></td>
<td></td>
<td>1.5</td>
<td>60</td>
</tr>
<tr>
<td>MI3P2E03B</td>
<td>53</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>72.33</td>
<td>0.7</td>
<td>0.053</td>
<td>0.006</td>
<td>3,813.7</td>
<td></td>
<td></td>
<td></td>
<td>1.5</td>
<td>60</td>
</tr>
<tr>
<td>MI3P2E03C</td>
<td>103</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>11</td>
<td>0.7</td>
<td>0.103</td>
<td>0.013</td>
<td>7,411.5</td>
<td></td>
<td></td>
<td></td>
<td>1.5</td>
<td>60</td>
</tr>
<tr>
<td>MI3P2E04A</td>
<td>17</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.5</td>
<td>0.017</td>
<td>0.001</td>
<td>873.8</td>
<td></td>
<td></td>
<td>0.001</td>
<td>1.5</td>
<td>60</td>
</tr>
<tr>
<td>MI3P2E05A</td>
<td>26</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1.0</td>
<td>0.026</td>
<td>0.005</td>
<td>2,672.7</td>
<td></td>
<td></td>
<td>0.025</td>
<td>1.5</td>
<td>60</td>
</tr>
<tr>
<td>MI3P2E05B</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1.0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td>0.0</td>
<td>1.5</td>
<td>60</td>
</tr>
</tbody>
</table>

Soil Texture = sandy loam
Mean edge of field loss = 0.0136%
Total edge of field loss = 0.068%

Table 18. Fipronil edge of field loss summary for the Minnesota 1 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MN1P1E01G1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>2</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>6</td>
<td>26</td>
<td></td>
</tr>
</tbody>
</table>

Soil Texture = silt loam
Mean edge of field loss = 0.0%
Total edge of field loss = 0.0%
Table 19. Fipronil edge of field loss summary for the Missouri 4 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-M04P1E01G2</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>0.69</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>p-M04P1E02G2</td>
<td>12</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>12.00</td>
<td>0.83</td>
<td>0.012</td>
<td>0.002</td>
<td>0.002</td>
<td>1,023.8</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>p-M04P1E03G2</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>1.44</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>p-M04P1E04G2</td>
<td>159</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>159.00</td>
<td>0.85</td>
<td>0.159</td>
<td>0.024</td>
<td>0.024</td>
<td>13,892.6</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>p-M04P1E08G1</td>
<td>158</td>
<td>&lt;10</td>
<td>13</td>
<td>56</td>
<td>130.00</td>
<td>1.71</td>
<td>0.158</td>
<td>0.047</td>
<td>0.047</td>
<td>27,773.0</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>p-M04P1E09G1</td>
<td>130</td>
<td>10</td>
<td>13</td>
<td>56</td>
<td>130.00</td>
<td>0.93</td>
<td>0.13</td>
<td>0.021</td>
<td>0.021</td>
<td>12,427.8</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>p-M04P1E10G1</td>
<td>12</td>
<td>&lt;10</td>
<td>14</td>
<td>12</td>
<td>12.00</td>
<td>0.67</td>
<td>0.012</td>
<td>0.001</td>
<td>0.001</td>
<td>826.5</td>
<td>6</td>
<td>60</td>
</tr>
</tbody>
</table>

p- pond outflow
Soil Texture = silt loam
Mean edge of field loss = 0.014%
Total edge of field loss = 0.095%
### Table 20. Fipronil edge of field loss summary for the Nebraska 1 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE1P1E01G1</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>25</td>
<td>152.50</td>
<td>3.04</td>
<td>0.244</td>
<td>0.129</td>
<td>0.081</td>
<td>76,248.7</td>
<td>1</td>
<td>60</td>
</tr>
<tr>
<td>NE1P1E01G2</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>61</td>
<td>1</td>
<td>0.061</td>
<td>0.032</td>
<td></td>
<td>19,062.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01A</td>
<td>665</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>32</td>
<td>3.04</td>
<td>0.665</td>
<td>0.352</td>
<td>0.143</td>
<td>207,808.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B</td>
<td>98</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>269.33</td>
<td>3.04</td>
<td>0.098</td>
<td>0.052</td>
<td>0.143</td>
<td>30,624.5</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E01C</td>
<td>45</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.045</td>
<td>0.024</td>
<td>14,062.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B1</td>
<td>42</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>19.58</td>
<td>3.04</td>
<td>0.042</td>
<td>0.0103</td>
<td>13,124.8</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E01B2</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.045</td>
<td>14,062.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B3</td>
<td>31</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.031</td>
<td>9,687.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B4</td>
<td>26</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.026</td>
<td>8,124.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B5</td>
<td>21</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.021</td>
<td>6,562.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B6</td>
<td>23</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.023</td>
<td>7,187.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B7</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0</td>
<td>7,187.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B8</td>
<td>12</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.012</td>
<td>3,749.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B9</td>
<td>30</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.03</td>
<td>9,374.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B10</td>
<td>44</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.044</td>
<td>13,749.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B11</td>
<td>22</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.022</td>
<td>6,874.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B12</td>
<td>24</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.024</td>
<td>7,499.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B13</td>
<td>24</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.024</td>
<td>7,499.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B14</td>
<td>16</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.016</td>
<td>4,999.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B15</td>
<td>18</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.018</td>
<td>5,624.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B16</td>
<td>14</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.014</td>
<td>4,374.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B17</td>
<td>12</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.012</td>
<td>3,749.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B18</td>
<td>14</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.014</td>
<td>4,374.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B19</td>
<td>11</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.011</td>
<td>3,437.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B20</td>
<td>12</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0.012</td>
<td>3,749.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B21</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample ID</td>
<td>FIPRONIL (ppm)</td>
<td>MB 46513 (ppm)</td>
<td>MB 45950 (ppm)</td>
<td>MB 46136 (ppm)</td>
<td>Sample Avg. (ug)</td>
<td>Rain Event (in)</td>
<td>Concentration (ug/L)</td>
<td>%Loss</td>
<td>Average % Loss</td>
<td>ug Lost</td>
<td>Slope (%)</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>------------------</td>
<td>-----------------</td>
<td>---------------------</td>
<td>-------</td>
<td>----------------</td>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>NE1P1E01B22</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td></td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B23</td>
<td>14</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td></td>
<td>0.014</td>
<td>0.007</td>
<td>4,374.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E01B24</td>
<td>15</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>3.04</td>
<td></td>
<td>0.015</td>
<td>0.006</td>
<td>4,687.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Event Average loss 0.0781
<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ug)</th>
<th>MB 45950 (ug)</th>
<th>MB 46136 (ug)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE1P1E03B1</td>
<td>13</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>17.75</td>
<td>1</td>
<td>0.013</td>
<td>0.002</td>
<td></td>
<td>1,336.3</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E03B2</td>
<td>23</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.023</td>
<td>0.004</td>
<td>2,364.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B3</td>
<td>19</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.019</td>
<td>0.003</td>
<td>1,953.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B4</td>
<td>13</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.013</td>
<td>0.002</td>
<td>1,336.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B5</td>
<td>18</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.018</td>
<td>0.003</td>
<td>1,850.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B6</td>
<td>19</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.019</td>
<td>0.003</td>
<td>1,953.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B7</td>
<td>30</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.03</td>
<td>0.005</td>
<td>3,083.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B8</td>
<td>20</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.02</td>
<td>0.003</td>
<td>2,055.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B9</td>
<td>23</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.023</td>
<td>0.004</td>
<td>2,364.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B10</td>
<td>11</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.011</td>
<td>0.002</td>
<td>1,130.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B11</td>
<td>15</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.015</td>
<td>0.003</td>
<td>1,541.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B12</td>
<td>12</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.012</td>
<td>0.002</td>
<td>1,233.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B13</td>
<td>12</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.012</td>
<td>0.002</td>
<td>1,233.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B14</td>
<td>14</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.014</td>
<td>0.002</td>
<td>1,439.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B15</td>
<td>17</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.017</td>
<td>0.003</td>
<td>1,747.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E03B16</td>
<td>25</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.025</td>
<td>0.004</td>
<td>2,569.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E04B2</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B3</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B4</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B5</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B6</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B7</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B8</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B9</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B10</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B11</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B12</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample ID</td>
<td>FIPRONIL (ppt)</td>
<td>MB 46513 (ppt)</td>
<td>MB 45950 (ppt)</td>
<td>MB 46136 (ppt)</td>
<td>Sample Avg. (ug)</td>
<td>Rain Event (in)</td>
<td>Concentration (ug/L)</td>
<td>%Loss</td>
<td>Average % Loss</td>
<td>ug Lost</td>
<td>Slope (%)</td>
<td>Drainage Area (ac)</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>------------------</td>
<td>-----------------</td>
<td>---------------------</td>
<td>-------</td>
<td>----------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>NE1P1E04B13</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B14</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B15</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NE1P1E04B16</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NE1P1E05B1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NE1P1E05B2</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NE1P1E05B3</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.00</td>
<td>1</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E05B4</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NE1P1E05B5</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NE1P1E06B1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>5.50</td>
<td>1</td>
<td>0.011</td>
<td>0.002</td>
<td>0.001</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E06B2</td>
<td>11</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.000</td>
<td>5.50</td>
<td>0.011</td>
<td>0.002</td>
<td>0.001</td>
<td>1,130.7</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E07B1</td>
<td>17</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.017</td>
<td>0.015</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>1,747.5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NE1P1E07B2</td>
<td>16</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.016</td>
<td>0.015</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>1,644.7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NE1P1E07B3</td>
<td>15</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.015</td>
<td>0.015</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>1,541.9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NE1P1E07B4</td>
<td>15</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.015</td>
<td>0.015</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>1,541.9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NE1P1E07B5</td>
<td>17</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.017</td>
<td>0.017</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>1,747.5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NE1P1E07B6</td>
<td>15</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.015</td>
<td>0.015</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>1,541.9</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E07B7</td>
<td>11</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.011</td>
<td>0.011</td>
<td>0.002</td>
<td>0.002</td>
<td>0.002</td>
<td>1,130.7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NE1P1E07B8</td>
<td>15</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.015</td>
<td>0.015</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>1,541.9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NE1P1E07B9</td>
<td>15</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.015</td>
<td>0.015</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>1,541.9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NE1P1E07B10</td>
<td>19</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.019</td>
<td>0.019</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>1,953.1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NE1P1E07B11</td>
<td>18</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.018</td>
<td>0.018</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>1,850.3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sample ID</td>
<td>FIPRONIL (ppt)</td>
<td>MB 46513 (ppt)</td>
<td>MB 45950 (ppt)</td>
<td>MB 46136 (ppt)</td>
<td>Sample Avg. (ug)</td>
<td>Rain Event (in)</td>
<td>Concentration (ug/L)</td>
<td>%Loss</td>
<td>Average % Loss</td>
<td>ug Lost</td>
<td>Slope (%)</td>
<td>Drainage Area (ac)</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>----------------------</td>
<td>-------</td>
<td>---------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>NE1P1E08A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B2</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B3</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B4</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B5</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B6</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B7</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1.93</td>
<td>1</td>
<td>0.000</td>
<td>0.000</td>
<td>1,439.1</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B8</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B9</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B10</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B11</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B12</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B13</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>1,336.3</td>
<td>0.0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>NE1P1E08B14</td>
<td>13</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>1.93</td>
<td>1</td>
<td>0.014</td>
<td>0.02</td>
<td>0.002</td>
<td>1,130.7</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

Field Event Weighted loss 0.00

Soil Texture = silt loam
Mean edge of field loss = 0.017%
Total edge of field loss = 0.152%
Table 21. Fipronil edge of field loss summary for the Nebraska 5 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope Drainage (%)</th>
<th>Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE5P2E01A</td>
<td>3600</td>
<td>167</td>
<td>35</td>
<td>218</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>3.6</td>
<td>1.317</td>
<td>777,124.8</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>NE5P2E01B</td>
<td>1338</td>
<td>37</td>
<td>24</td>
<td>73</td>
<td>1927.33</td>
<td>2.1</td>
<td>1.338</td>
<td>0.000</td>
<td>0.000</td>
<td>288,831.4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>NE5P2E01C</td>
<td>844</td>
<td>24</td>
<td>10</td>
<td>25</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.844</td>
<td>0.309</td>
<td>182,192.6</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>NE5P2E02G1</td>
<td>13</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.000</td>
<td>0.000</td>
<td>0.013</td>
<td>0.003</td>
<td>0.031</td>
<td>1,737.2</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>NE5P2E02A</td>
<td>450</td>
<td>50</td>
<td>69</td>
<td>248.00</td>
<td>1.3</td>
<td>0.031</td>
<td>0.45</td>
<td>0.007</td>
<td>0.000</td>
<td>60,134.7</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>NE5P2E02B</td>
<td>31</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>21</td>
<td>0.000</td>
<td>0.000</td>
<td>0.498</td>
<td>0.056</td>
<td>0.113</td>
<td>4,142.6</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>NE5P2E02C</td>
<td>498</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>21</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>66,549.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE5P2E03G1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>NE5P2E03A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>NE5P2E03B</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.0</td>
<td>3</td>
<td>12</td>
</tr>
</tbody>
</table>

Soil Texture = silt loam
Mean edge of field loss = 0.253%
Total edge of field loss = 0.761%
Table 22. Fipronil edge of field loss summary for the Nebraska 11 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope (%)</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE11P1E01G1</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>25.5</td>
<td>0.029</td>
<td>0.015</td>
<td>0.013</td>
<td>8,883.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE11P1E01A</td>
<td>37</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>2.98</td>
<td>0.037</td>
<td>0.019</td>
<td>0.013</td>
<td>11,334.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE11P1E01B</td>
<td>10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td></td>
<td>0.01</td>
<td>0.005</td>
<td>0.75</td>
<td>3,063.3</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>NE11P1E01C</td>
<td>26</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td></td>
<td>0.026</td>
<td>0.013</td>
<td>0.75</td>
<td>7,964.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NE11P2E01G1</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td></td>
<td>0</td>
<td>0.000</td>
<td>0.00</td>
<td>0.0</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>NE11P2E01A</td>
<td>0</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td></td>
<td>0</td>
<td>0.000</td>
<td>0.00</td>
<td>0.0</td>
<td>0.75</td>
<td>45</td>
</tr>
</tbody>
</table>

Field Event Average loss 0.007

Soil Texture = silt loam
Mean edge of field loss = 0.007%
Total edge of field loss = 0.013%
Table 23. Fipronil edge of field loss summary for the Ohio 3 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH3P1E01G2</td>
<td>171</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>171.00</td>
<td>1.16</td>
<td>0.171</td>
<td>0.035</td>
<td>0.035</td>
<td>20,390.3</td>
<td>3</td>
<td>31</td>
</tr>
<tr>
<td>OH3P1E02G2</td>
<td>73</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>73.00</td>
<td>0.8</td>
<td>0.073</td>
<td>0.010</td>
<td>0.010</td>
<td>6,003.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OH3P1E03G2</td>
<td>56</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>56.00</td>
<td>1.55</td>
<td>0.056</td>
<td>0.015</td>
<td>0.015</td>
<td>8,922.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OH3P1E05A</td>
<td>118</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>(18)</td>
<td>118.00</td>
<td>0.9</td>
<td>0.118</td>
<td>0.018</td>
<td>0.0195</td>
<td>10,916.8</td>
<td>3</td>
<td>31</td>
</tr>
<tr>
<td>OH3P1E05B</td>
<td>136</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>18</td>
<td>136.00</td>
<td></td>
<td>0.136</td>
<td>0.021</td>
<td></td>
<td>12,582.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Soil Texture = silt loam
Mean edge of field loss = 0.007%
Total edge of field loss = 0.0199%

Table 24. Fipronil edge of field loss summary for the Ohio 4 site.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>FIPRONIL (ppt)</th>
<th>MB 46513 (ppt)</th>
<th>MB 45950 (ppt)</th>
<th>MB 46136 (ppt)</th>
<th>Sample Avg. (ug)</th>
<th>Rain Event (in)</th>
<th>Concentration (ug/L)</th>
<th>%Loss</th>
<th>Average % Loss</th>
<th>ug Lost</th>
<th>Slope</th>
<th>Drainage Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH4P1E01G2</td>
<td>2188</td>
<td>216</td>
<td>17</td>
<td>101</td>
<td>2188.00</td>
<td>0.88</td>
<td>2.188</td>
<td>0.335</td>
<td>0.335</td>
<td>197,924.2</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>OH4P1E02G2</td>
<td>395</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>355.00</td>
<td>0.42</td>
<td>0.355</td>
<td>0.026</td>
<td>0.026</td>
<td>15,326.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OH4P1E04A</td>
<td>125</td>
<td>31</td>
<td>&lt;10</td>
<td>21</td>
<td></td>
<td></td>
<td>0.125</td>
<td>0.016</td>
<td></td>
<td>9,380.0</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>OH4P1E04B</td>
<td>136</td>
<td>23</td>
<td>&lt;10</td>
<td>16</td>
<td>166.00</td>
<td>0.73</td>
<td>0.136</td>
<td>0.017</td>
<td>0.021</td>
<td>10,205.4</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>OH4P1E04C</td>
<td>237</td>
<td>&lt;10</td>
<td>12</td>
<td>26</td>
<td></td>
<td></td>
<td>0.237</td>
<td>0.030</td>
<td></td>
<td>17,784.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Soil Texture = fine sandy loam
Mean edge of field loss = 0.042%
Total edge of field loss = 0.127%
SAMPLING AND ANALYTICAL METHODS:

Sampling Methods-

Three sampling methods were used in the study including grab sample, siphon sample, and automatic sample collection. Siphon collection employed a simple siphon bottle with an inlet port for surface water and exhaust port for displaced air. Automatic sampling was conducted using a fraction collector connected to a peristaltic pump. Water samples were taken at triplicate, sequential time intervals of 2, 5, 10, 30, 45 minutes; and 1, 2, and 4 hours.

Analytical Methods-

Analytical methods were designed to determine concentrations of fipronil, MB 45950, MB 46513, and MB 46136. Water samples collected at each site were kept cooled and then shipped via overnight courier to the BASF laboratory. At the laboratory, the samples were frozen and stored (< -5°C) prior to analysis. Samples were initially analyzed using an analytical method by Bayer1. The method limit or quantification is 10 ng/L (10 ppt) and the limit of detection is 2 ng/L (2 ppt). Frozen samples were thawed, shaken vigorously and filtered. Acetonitrile was added to each sample prior to chemical analysis. Samples were analyzed using LC/MS/MS in negative ion mode.

BASF modified the Bayer analytical method to account for turbidity of surface waters. Water samples were shaken vigorously prior to sampling. A 5 ml aliquot was removed and then filtered through a 4.5 μm teflon filter. An aliquot of the filtered extract was spiked with acetonitrile and then analyzed using HPLC-MS/MS. LC-MS/MS analysis was based on the following transitions m/z 434.9-330.0 for fipronil, m/z 386.9-351 for MB46513, m/z 418.9 - 383.1 for MB 45950, and m/z 450.9 - 415 for MB46136. Because the Bayer analytical method was modified during study, several samples were not be analyzed using the new BASF method due to destructive sample extraction method. Sample recoveries from fortified surface water at 10 ng/L are as follows: 99±15% for fipronil, 86±9% for MB46513, 82±7 for MB45950, and 60±4 for MB46136.

Calculation of Compound Edge of Field Loss

Equations used for estimating mass of fipronil loss and % of runoff are as follows:

\[ \text{μg Lost} = \frac{\text{runoff volume (inches)}}{12 \text{ (inches)*123531 L/ac ft*concentration (μg/L)}} \]

\[ \% \text{ edge of field loss} = \frac{\text{μg/ac applied}}{\text{μg lost}} \times 100 \]

---

1 “Insecticides, Fipronil: Method of Analysis for possible Residues of Fipronil, MB46513, MB45950, and MB46136 in Water-Revision 4" Issued May 21, 2002.
In Table 25, cultural practices that may have contributed to fipronil runoff have been listed. Based on total and average field loss, soil disturbance (Cultural practices) did not appear to produce any general trend that could be simply summarized.

**Table 25. Summary of cultural practices having soil disturbance impacts.**

<table>
<thead>
<tr>
<th>Site ID</th>
<th>Post-plant Soil Disturbance?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA9</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>IA10</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>IL3</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>IL4</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>IL5</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>IL6</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>IN10</td>
<td>Nitrogen side dressing once during season.</td>
<td>Very little soil disturbance</td>
</tr>
<tr>
<td>IN12</td>
<td>Nitrogen side dressing 6 to 8 weeks after planting.</td>
<td>Very little soil disturbance</td>
</tr>
<tr>
<td>IN13</td>
<td>Nitrogen side dressing 6 to 8 weeks after planting.</td>
<td>Very little soil disturbance</td>
</tr>
<tr>
<td>IN7</td>
<td>Cultivated for weeds and nitrogen side dressed at the end of the second week of June.</td>
<td></td>
</tr>
<tr>
<td>IN8</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>KY4</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>MI3</td>
<td>Rotary hoed 2 to 3 times during the season. Nitrogen side dressing once.</td>
<td>They had so much rain they had to break up the crust.</td>
</tr>
<tr>
<td>MN1</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>MO4</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>NE1</td>
<td>Cultivated once for weeds -beginning of June. Hilled for irrigation rows - end of June.</td>
<td>Hilling piles the soil up around the corn.</td>
</tr>
<tr>
<td>NE11</td>
<td>Cultivated once for weeds -beginning of June. Hilled for irrigation rows - end of June.</td>
<td>Hilling piles the soil up around the corn.</td>
</tr>
<tr>
<td>NE5</td>
<td>Cultivated once for weeds.</td>
<td></td>
</tr>
<tr>
<td>OH3</td>
<td>Nitrogen side dressing once during season.</td>
<td>Very little soil disturbance</td>
</tr>
<tr>
<td>OH4</td>
<td>None.</td>
<td></td>
</tr>
</tbody>
</table>

The edge of field loss presented in Tables 5 - 24 have been plotted by event with the rainfall amount associated with the event. The results of plotting this data can be found in Figures 27 - 42. Figure 43 is a graph of water concentration in the MO4 pond site. Figure 44 is a probability distribution of fipronil edge of field loss based on all events, and Figure 45 is a probability distribution of fipronil edge of field loss based on total field loss. Table 29 is a summary of runoff events by field presented in Figure 45.
Figure 27 Fipronil edge of field loss for each rainfall event at the Iowa 9 site.

Figure 28 Fipronil edge of field loss for each rainfall event at the Iowa 10 site.
Figure 29  Fipronil edge of field loss for each rainfall event at the Illinois 4 site.

Figure 30  Fipronil edge of field loss for each rainfall event at the Illinois 6 site.
Figure 31  Fipronil edge of field loss for each rainfall event at the Indiana 7 site.

Figure 32  Fipronil edge of field loss for each rainfall event at the Indiana 10 site.
Figure 33  Fipronil edge of field loss for each rainfall event at the Indiana 12 site.

Figure 34  Fipronil edge of field loss for each rainfall event at the Indiana 13 site.
Figure 35  Fipronil edge of field loss for each rainfall event at the Kentucky 4 site.

Figure 36  Fipronil edge of field loss for each rainfall event at the Michigan 3 site.
Figure 37 Fipronil edge of field loss for each rainfall event at the Missouri 4 site.

Figure 38 Fipronil edge of field loss for each rainfall event at the Nebraska 1 site.
Figure 39 Fipronil edge of field loss for each rainfall event at the Nebraska 5 site.

Figure 40 Fipronil edge of field loss for each rainfall event at the Nebraska 11 site.
Figure 41 Fipronil edge of field loss for each rainfall event at the Ohio 3 site.

Figure 42 Fipronil edge of field loss for each rainfall event at the Ohio 4 site.
Figure 43 Missouri 4 pond concentrations.

Figure 44 Probability distribution of fipronil edge of field loss - All events.
general, degradates of fipronil were not detected in the runoff water samples. Since we were measuring edge of field loss, it was not anticipated that degradates would be found commonly. There were three ponds sampled (IL3, IN10 and MO4) as part of this study in addition to the runoff data generated. At the IL3 and IN10 sites, there were no fipronil residues found in pond samples. However, at the IN10 site there was a detect of the MB 46513 degradate at 24 ng/L. At the MO4 site fipronil concentrations ranged from 0 to 159 ng/L. A backward, stepwise multiple regression was performed on the dataset to determine if a specific causal factor leading to residue runoff could be determined. Factors used in the multiple regression included data on site slope, soil texture, drainage area, and rainfall amount as predictors of edge of field loss, but none were predictive. Rainfall amount provided the best predictor of compound loss but the relationship (correlation to % edge of field loss to rainfall) was only a trend (Figure 46).

![Figure 46 Relationship between rainfall and % edge of field loss.](image)

A great deal of work on edge of field loss for various compounds can be found in the literature. We examined many papers as part of our work and several insightful papers are summarized in this document.

Southwick et al. (2003) studied atrazine and metolachlor runoff over a three year period in southern Louisiana. In the Southwick et al. study losses of atrazine in runoff water were 5.2%, 10.8%, and 6.0% for years 1995, 1996, and 1997 respectively. Losses of metolachlor in runoff water were 3.7%, 8.0%, and 5.0% for years 1995, 1996, and 1997 respectively. In the Southwick et al. study, edge of field loss corresponded to rainfall in decreasing response (e.g. 1st event, highest loss). The percent edge of field loss for both atrazine and metolachlor were much higher than those for fipronil based on the
Autosampler results

Five sites were setup to collect samples using a Sigma autosampler. The goal for using the autosamplers was to gain understanding about the behavior of residue leaving fields as runoff water in a way not possible with fixed time sampling (e.g. grab samples). Decline in residues from sample initiation to completion indicated that concentrations fluctuated throughout the sampling events and did not produce a general trend (e.g. decline from 1st sample to last). One phenomenon that was observed with most autosampler chronoseries we measured was a bimodal behavior for residue concentration. The bimodal behavior was not correlated to rainfall pattern. The bimodal pattern followed the anticipated peak in concentration followed by concentration decline, but this occurred twice in the full series of samples. A typical autosampler residue sequence can be observed in Figure 47. The first four hours of the runoff event in Figure 47 are presented in Figure 48. Residue concentrations in the sequence slowly increased from 1 hour to the 4 hour sampling, but rainfall fell as a slow steady rainfall event.

![Image of Figure 48](image-url)

**Figure 48.** Residue concentrations from the autosampler at the NE1 site.
Rainfall at NE1

Figure 49. Rainfall pattern corresponding to autosampler sequence in Figure 47. Runoff continued past the end of the rainfall event.

Figure 50. Diagram with the three phases of a runoff event displayed.

In Figure 49, three areas (phases) have been labeled that indicate runoff responses that we commonly observed in this study. In phase one, an initial event highest concentration is observed but declines as the soil becomes saturated. In phase two, the rain falls as a slow but steady event. However, once the soil became saturated,