

untreated plot was 10 x 163 feet and the treated plots were 40 x 70 feet. At Sites MO01 and IA01 all plots were 30 x 100 feet. At each site, the untreated plot was positioned at least 50 feet from the treated plot. The treated and untreated plots were identified by uniquely coded flags. Plot maps are presented in Figures 2 to 7. Field test site layout information is presented in Table 4.

Test site preparation and maintenance (including pesticides used, agronomic practices employed, and fertilizers applied) were recorded. Test site preparation and maintenance information is presented in Table 5.

Crop variety and planting information is presented in Table 6.

3. Test Substance Treatment Rate and Application Timings

The test substances used were mancozeb, malathion, carbofuran, clethodim, and esfenvalerate. Not all test substances were applied to every crop or plot. For all test substances with multiple applications, the interval between applications was between six and eleven days.

The test substances were applied at target rates as follows:

**Mancozeb** was applied once as a seed treatment to rice to Plot 2 (AR01) and Plot 5 (CA01) at the 1x rate and once as a seed treatment to Plot 3 (AR01) and Plot 6 (CA01) at the 5x rate. Actual seed treatment rates of mancozeb on rice were 100 percent of target.

Mancozeb was also applied to wheat three times to Plot 9 (ND01) and Plot 12 (MO01) at the 1x rate (1.6 lb ai/A) and three times to Plot 8 (ND01) and Plot 11 (MO01) at the 5x rate (8 lb ai/A). Actual application rates on wheat ranged from 96.7 to 101 percent of target. Mancozeb was applied to wheat at spray rates ranging from 19.5 to 24.4 gallons per acre (GPA).

**Malathion** was applied to rice five times to Plot 3 (AR01) and Plot 6 (CA01) at the 1x rate (2 lb ai/A) and five times to Plot 2 (AR01) and Plot 5 (CA01) at the 5x rate (10 lb ai/A). Actual application rates on rice ranged from 99.6 to 102 percent of target. Malathion was applied to rice at spray rates ranging from 18.3 to 20.3 GPA.

**Carbofuran** was applied as a granular application to rice once to Plot 2 (AR01) and Plot 5 (CA01) at the 5x rate (3 lb ai/A). Actual application rates on rice were 100 percent of target.

Carbofuran was applied as a liquid application twice to Plot 8 (ND01 wheat), Plot 11 (MO01 wheat), Plot 14 (AR02 soybean), and Plot 17 (IA01 soybean) at the 1x rate (0.25 lb ai/A) and twice to Plot 9 (ND01 wheat), Plot 12 (MO01 wheat), Plot 15 (AR02 soybean) and Plot 18 (IA01 soybean) at the 5x rate (1.25 lb ai/A). Actual application rates on wheat and soybean ranged from 96 to 101 percent of target. Carbofuran was applied to wheat at spray rates ranging from 19.3 to 23.5 and to soybeans at spray rates ranging from 9.5 to 14.6 GPA.

**Clethodim** was applied to soybeans once to Plot 15 (AR02) and Plot 18 (IA01) at the 1x rate (0.25 lb ai/A) and once to Plot 14 (AR02) and Plot 17 (IA01) at the 5x rate (1.25 lb ai/A). Actual application rates on soybean ranged from 100 to 102 percent of target. Clethodim was applied to soybeans at spray rates ranging from 9.5 to 15.0 GPA.

**Esfenvalerate** was applied to soybeans four times to Plot 14 (AR02) and Plot 17 (IA01) at the 1x rate (0.05 lb ai/A) and four times to Plot 15 (AR02) and Plot 18 (IA01) at the 5x rate (0.25 lb ai/A). Actual application rates on soybean ranged from 96 to 100 percent of target. Esfenvalerate was applied to soybeans at spray rates ranging from 9.5 to 14.7 GPA.

**Actual Test Substance Application Rates, Percent of Target:**

|                     |             |
|---------------------|-------------|
| Rice, Site AR01:    | 100         |
| Rice, Site CA01:    | 99.6 to 102 |
| Wheat, Site ND01:   | 97.5 to 101 |
| Wheat, Site MO01:   | 96.7 to 101 |
| Soybean, Site AR02  | 100         |
| Soybean, Site IA01: | 96 to 102   |

4. Application Procedures

At all sites, the application equipment was calibrated prior to application of the test substance. All applications were verified by the time/volume technique, which is based on the output per time and equipment travel speed. The calibrations were conducted the same day as the applications at all sites. Equipment calibration and application information is presented in Table 8, and product rate determination is presented in Table 10.

The equipment used was typical of small plot research equipment that closely simulates commercial equipment. Backpack boom sprayers and tractor-mounted boom sprayers were used to make

the broadcast applications. Granular applications were applied by hand. Seed treatments were applied and mixed directly with the seed. Application equipment information is presented in Table 9 and environmental conditions at application are presented in Table 11.

No problems occurred during applications.

5. Weather Data

Weather data for each site, including minimum/maximum temperatures and daily rainfall, were recorded for the trial period from permanent weather stations located near or on the test sites, and compared to the historical norm. Weather data are presented in Table 12.

6. Sampling and Sample Shipment

At all sites, wheat, rice and soybean samples were successfully collected. One sample was collected from each plot (one control and 2 treated plots) at each of the six sites. In all cases, the untreated plots were sampled before the treated plots. Equipment was thoroughly cleaned or flushed with untreated grain before use and between treated samples.

Combine-type equipment was used at Sites AR01, ND01, AR02 and IA02. At Site CA01 a small-plot harvester was used, and at Site MO01 a hedge trimmer was used to harvest grain before it was put through a thresher. Samples were placed in pre-labeled plastic-lined sample bags. If sample material was touched by person(s) collecting sample, disposal gloves were used and changed between treated samples. Samples were weighed and placed in the freezers or in coolers with dry ice or substitute ice within one hour, except at Site AR01 where samples were kept ambient (air conditioned) until first shipment.

After harvest, rice samples at AR01 and CA01 were sent to South Texas Ag Research (STAR) for processing before shipment to Japan. At Site AR01, samples remained ambient (air conditioned) until shipment for processing and then were frozen upon return from STAR until shipment to Japan. At CA01, samples were frozen after sampling and were transported to STAR by ACDS freezer truck. CA01 samples remained frozen until shipment.

All samples were shipped to Japan frozen on dry ice and were received in good condition. Samples at Site CA01 were sent

frozen on dry ice to Mid-South Ag Research in Arkansas to facilitate FedEx shipment to Japan.

Sampling information is presented in Table 13, and sample storage and shipping information is presented in Table 14.

#### D. Deviations

Deviations that occurred during the field phase of this study were documented and reported to the Study Director. The deviations are listed numerically and had no impact on the results of this study.

##### Deviation No. 1

At Site AR01, samples were harvested on September 24, 2005, which was two days earlier than the protocol specified. Rice was harvested early in anticipation of rain, beginning on September 25, 2005, associated with a hurricane.

##### Deviation No. 2

At the sites listed below, applications were made one day outside the 7 to 10 day interval, specified in the protocol, between test substance applications.

| Site | Plot No. | Test Substance | Applications | Actual Interval |
|------|----------|----------------|--------------|-----------------|
| CA01 | 5        | Malathion      | 1 and 2      | 11 days         |
| CA01 | 6        | Malathion      | 1 and 2      | 11 days         |
| MO01 | 11       | Carbofuran     | 1 and 2      | 11 days         |
| MO01 | 12       | Carbofuran     | 1 and 2      | 11 days         |
| MO01 | 11       | Mancozeb       | 2 and 3      | 6 days          |
| MO01 | 12       | Mancozeb       | 2 and 3      | 6 days          |
| IA01 | 17       | Carbofuran     | 1 and 2      | 6 days          |
| IA01 | 18       | Carbofuran     | 1 and 2      | 6 days          |
| IA01 | 17       | Esfenvalerate  | 3 and 4      | 6 days          |
| IA01 | 18       | Esfenvalerate  | 3 and 4      | 6 days          |

#### **E. Quality Control**

Quality control measures taken to maintain sample integrity and to avoid contamination at the field test sites were recorded in the field notebooks and include the following:

- Plots were laid out with adequate buffer zones and situated in a manner designed to minimize contamination due to drift and run-off of the test substance. The untreated plot was sampled before the treated plot at each test site.
- All samples were labeled, stored and shipped in a manner designed to prevent contamination and decomposition of the samples. Control and treated samples were boxed separately for shipment and were accompanied in transit with appropriate chain-of-custody forms.
- Access to the field plots, chemical storage, residue sample storage, trial records, etc., was restricted to authorized personnel.

#### **F. Storage of Raw Data**

Study specific raw data generated at the field test sites will be transferred to the Sponsor upon acceptance of the final field report. Non study-specific raw data generated at the field test sites will be maintained with each of the field investigators.

#### IV. TABLES

Field Report

Test Compounds in Rice, Wheat and Soybean RAC

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**Table 1: Site Codes, Crop, Locations and Field Principal Investigators**

| <b>Site Code &amp; Crop</b>       | <b>Site Location<br/>(City, State, County, Region)</b> | <b>Field Principal Investigator</b>  |
|-----------------------------------|--|--|
| AR01<br>Rice<br>(Japonica Strain) | Proctor, Arkansas<br>Crittenden County<br>EPA Region 4 | Don Harlan, Ph.D.<br>Mid-South Ag Research<br>2383 Hinckley Road<br>Proctor, AR 72376                |
| CA01<br>Rice<br>(Japonica Strain) | Chico, California<br>Glenn County<br>EPA Region 10     | Debra Keenan<br>Research 2000<br>PMB 298<br>236 W. East Avenue, Suite A<br>Chico, CA 95926           |
| ND01<br>Wheat                     | Gardner, North Dakota<br>Cass County<br>EPA Region 5   | Quan Zai Jia<br>Northern Plains Ag Research<br>16458 19 <sup>th</sup> Street SE<br>Gardner, ND 58036 |
| MO01<br>Wheat                     | Kirkville, Missouri<br>Adair County<br>EPA Region 5    | David Bennett<br>Bennett Ag Research<br>1109 Ivy Avenue<br>Richland, IA 52585                        |
| AR02<br>Soybean                   | Proctor, Arkansas<br>Crittenden County<br>EPA Region 4 | Don Harlan, Ph.D.<br>Mid-South Ag Research<br>2383 Hinckley Road<br>Proctor, AR 72376                |
| IA01<br>Soybean                   | Richland, Iowa<br>Jefferson County<br>EPA Region 5     | David Bennett<br>Bennett Ag Research<br>1109 Ivy Avenue<br>Richland, IA 52585                        |

**Table 2: Field Pesticide History**

| Site Code       | Month/Year | Crop             | Product/Formulation    | Active Ingredient(s)       | Rate (lb ai/A) |
|-----------------|------------|------------------|------------------------|----------------------------|----------------|
| AR01<br>Rice    | 2004       | Fallow           | None                   |                            |                |
| CA01<br>Rice    | 2004       | Rice             | Cerano                 | Clomazone                  | 12 lb prod/A   |
|                 | 2004       | Rice             | Stam                   | Propanil                   | 7.5 lb prod/A  |
| ND01<br>Wheat   | 06/04      | Soybean          | Touchdown 35L          | Glyphosate/<br>diammonium  | 0.5            |
| MO01<br>Wheat   | 04/04      | Soybeans         | Roundup Weather<br>Max | Glyphosate                 | 1.0            |
|                 | 06/04      | Soybeans         | Roundup Weather<br>Max | Glyphosate                 | 0.75           |
| AR02<br>Soybean | 05/04      | Cotton           | Temik 15G              | Aldicarb                   | 0.75           |
|                 | 05/04      | Cotton           | Ridomil                | Metalaxyl                  | 0.74           |
|                 | 05/04      | Cotton           | Flomet 4L              | Fluometuron                | 1.5            |
|                 | 05/04      | Cotton           | Prowl 3.3L             | Pendimethalin              | 1.25           |
|                 | 05/04      | Cotton           | Orthene 90S            | Acephate                   | 0.5            |
|                 | 05/04      | Cotton           | Roundup                | Glyphosate                 | 1.5            |
|                 | 06/04      | Cotton           | Centric                | Thiamethoxam               | 0.05           |
|                 | 07/04      | Cotton           | Karmex                 | Diuron                     | 0.4            |
|                 | 07/04      | Cotton           | Pix                    | Mepiquat<br>Chloride       | 0.06           |
|                 | 09/04      | Cotton           | Aim                    | Carfentrazone              | 0.016          |
| 09/04           | Cotton     | Prep             | Ethaphone              | 0.75                       |                |
| IA01<br>Soybean | 06/04      | Grain<br>Sorghum | Cinch ATZ Lite         | S-metolachlor<br>+Atrazine | 2.61           |
|                 | 06/04      | Grain<br>Sorghum | Atrazine               | Atrazine                   | 0.45           |

**Table 3: Soil Type**

| Site Code | Soil Series Type                    |
|-----------|-------------------------------------|
| AR01      | Commerce Loam                       |
| CA01      | Pleasanton Gravelly Sandy Clay Loam |
| ND01      | Hegne Fargo Silty Clay Loam         |
| MO01      | Putnam Silty Clay Loam              |
| AR02      | Commerce Sandy Loam                 |
| IA01      | Tainter Silty Clay Loam             |



**Table 4: Field Test Site Layout**

| Site Code       | Plot No. | Width x Length<br>in Feet | Area in<br>Square Feet | Area in Acres |
|-----------------|----------|---------------------------|------------------------|---------------|
| AR01<br>Rice    | 1-UTC    | 24 x 50                   | 1200                   | 0.0275        |
|                 | 2-TRT    | 24 x 50                   | 1200                   | 0.0275        |
|                 | 3-TRT    | 24 x 50                   | 1200                   | 0.0275        |
| CA01<br>Rice    | 4-UTC    | 20 x 50                   | 1000                   | 0.0230        |
|                 | 5-TRT    | 20 x 50                   | 1000                   | 0.0230        |
|                 | 6-TRT    | 20 x 50                   | 1000                   | 0.0230        |
| ND01<br>Wheat   | 7-UTC    | 10 x 163                  | 1630                   | 0.0374        |
|                 | 8-TRT    | 40 x 70                   | 2800                   | 0.0643        |
|                 | 9-TRT    | 40 x 70                   | 2800                   | 0.0643        |
| MO01<br>Wheat   | 10-UTC   | 30 x 100                  | 3000                   | 0.0689        |
|                 | 11-TRT   | 30 x 100                  | 3000                   | 0.0689        |
|                 | 12-TRT   | 30 x 100                  | 3000                   | 0.0689        |
| AR02<br>Soybean | 13-UTC   | 24 x 50                   | 1200                   | 0.0275        |
|                 | 14-TRT   | 24 x 50                   | 1200                   | 0.0275        |
|                 | 15-TRT   | 24 x 50                   | 1200                   | 0.0275        |
| IA01<br>Soybean | 16-UTC   | 30 x 100                  | 3000                   | 0.0689        |
|                 | 17-TRT   | 30 x 100                  | 3000                   | 0.0689        |
|                 | 18-TRT   | 30 x 100                  | 3000                   | 0.0689        |

**Table 5: Field Test Site Preparation and Maintenance**

| Site Code     | Date                             | Pesticide (Product/Active Ingredient)                       | Rate (lb ai/A)   | Date     | Agronomic Practice  | Date                   | Fertilizer                    | Rate (lb/A) |
|---------------|----------------------------------|---|------------------|----------|---|------------------------|-------------------------------|-------------|
| AR01<br>Rice  | 05/17/05                         | Command 3ME/<br>Clomazone                                   | 0.6              | 06/03/05 | ~3 inches.<br>About 1 inch daily as<br>needed until drained<br>Levees cut, plots<br>drained | 05/30/05               | Urea 46%                      | 150         |
|               | 05/17/05                         | Bolero 8E/Thiobencarb                                       | 4.0              | 08/22/05 |   | 06/16/05               | Urea 46%                      | 100         |
| CA01<br>Rice  | 05/20/05                         | Cerrano/Clomazone   | 12 lb<br>prod/A  | 05/20/05 | 4" continuous flood   | No fertilizer applied. |                               |             |
|               | 07/05/05                         | Stam/Propanil   | 7.5 lb<br>prod/A | 05/21/05 | Hand seeded plots   |                        |                               |             |
| ND01<br>Wheat | 06/04/05                         | Puma IEC/<br>Fenoxaprop-P ethyl                             | 0.04             | 04/25/05 | Field Cultivating and<br>Harrowing  | 04/25/05               | Urea/Nitrogen<br>46-0-0       | 100         |
|               | 06/04/05                         | Bronate Adv 2.5 &<br>2.5EC/Bromoxynil<br>ester + MCPA ester | 0.375 +<br>0.375 | 04/25/05 |   | MAP/N.P.<br>11-52-0    | 40                            |             |
| MO01<br>Wheat | No pesticides used during study. |   |                  | 11/13/04 | No-Till Wheat<br>planted.   | 03/25/05               | Nitrogen                      | 50          |
|               |                                  |   |                  |          |   | 03/25/05               | P <sub>2</sub> O <sub>5</sub> | 25          |
|               |                                  |   |                  |          |   | 03/25/05               | K <sub>2</sub> O              | 15          |

**Table 5: Field Test Site Preparation and Maintenance (Continued)**

| Site Code       | Date     | Pesticide (Product/Active Ingredient) | Rate (lb ai/A) | Date  | Agronomic Practice                       | Date     | Fertilizer                    | Rate (lb/A) |
|-----------------|----------|---------------------------------------|----------------|---|--|----------|-------------------------------|-------------|
| AR02<br>Soybean | 06/13/05 | Roundup 5.5EC /Glyphosate             | 0.85           | No agronomic practices were performed during the study. | No fertilizer applied.                   | 12/23/04 | Nitrogen                      | 12          |
|                 | 05/21/05 | Treflan 4 lb /gal/ Trifluralin        | 1.0            | 11/2004   |  |          |                               |             |
| IA01<br>Soybean | 05/21/05 | Pythron 80% WDG/ Flumetsulam          | 0.075          | 05/05/05  | Field cultivate                          | 12/23/04 | P <sub>2</sub> O <sub>5</sub> | 70          |
|                 |          |                                       |                | 05/21/05  | Field cultivate -- incorporate herbicide | 12/23/04 | K <sub>2</sub> O              | 60          |

Table 6: Crop

| Site Code | Variety/Crop                       | Planting Date | Row Spacing (inches)          | Plant Spacing (inches) |
|-----------|------------------------------------|---------------|-------------------------------|------------------------|
| AR01      | Osborne Seed Company Cocodrie/Rice | 05/17/05      | 6                             | 1                      |
| CA01      | M206/Rice                          | 05/21/05      | Seed was broadcast onto plot. |                        |
| ND01      | Arthur Company Knudsen/Wheat       | 05/06/05      | 6.7                           | 1                      |
| MO01      | Ernie/Wheat                        | 11/13/04      | 8                             | 2 to 3                 |
| AR02      | Asgrow 4403 RR/Soybean             | 05/13/05      | 36                            | 1                      |
| IA01      | Pioneer 93B87/Soybean              | 06/07/05      | 30                            | 1.5                    |

Table 7: Test Substance Shipping and Storage

| Site Code       | Test Compound | Product Name & Manufacturer           | Amount  | Date Obtained/ Rec'd by FPI | Test Site Storage Temp <sup>1</sup> |                  |
|-----------------|---------------|---------------------------------------|---------|-----------------------------|-------------------------------------|------------------|
|                 |               |                                       |         |                             | Min °C                              | Max °C           |
| AR01<br>Rice    | Mancozeb      | Dithane F45<br>Dow AgroSciences       | 2.5 gal | 05/16/05                    | Not stored                          |                  |
|                 | Malathion     | Malathion 57EC<br>Platte Chemical     | 2.5 gal | 05/27/05                    | 21                                  | 30               |
|                 | Carbofuran    | Furadan 5G<br>FMC Corporation         | 5 lb    | 05/27/05                    | 21                                  | 29               |
| CA01<br>Rice    | Mancozeb      | Dithane M45<br>Dow AgroSciences       | 2.5 gal | 05/19/05                    | 10                                  | 30               |
|                 | Malathion     | Malathion 8EC<br>Micro Flo Co., LLC   | 2.5 gal | 07/29/05                    | 18                                  | 29               |
|                 | Carbofuran    | Furadan 5G<br>FMC Corporation         | 50 lb   | 07/29/05                    | 21                                  | 25               |
| ND01<br>Wheat   | Carbofuran    | Furadan 4F<br>FMC Corporation         | 2.5 gal | 06/10/05                    | 16                                  | 31               |
|                 | Mancozeb      | Dithane DF 75%<br>Rohm & Haas         | 12 lb   | 08/04                       | N/A <sup>2</sup>                    | N/A <sup>2</sup> |
| MO01<br>Wheat   | Carbofuran    | Furadan 4F<br>FMC Corporation         | 2.5 gal | 06/09/05                    | 20                                  | 29               |
|                 | Mancozeb      | Dithane DF<br>Dow AgroSciences        | 12 lb   | 06/09/05                    | 20                                  | 29               |
| AR02<br>Soybean | Carbofuran    | Furadan 4F<br>FMC Corporation         | 1 pt    | 05/20/05                    | 21                                  | 30               |
|                 | Clethodim     | Select 2EC<br>Valent U.S.A. Corp.     | 1 gal   | 05/27/05                    | 21                                  | 29               |
|                 | Esfenvalerate | Asana 0.66 EC<br>Dupont Crop Protect. | 1 gal   | 06/30/05                    | 21                                  | 30               |
| IA01<br>Soybean | Carbofuran    | Furadan 4FL<br>FMC Corporation        | 2.5 gal | 06/01/05                    | 19                                  | 29               |
|                 | Clethodim     | Select 2EC<br>Valent U.S.A. Corp.     | 1 gal   | 06/01/05                    | 19                                  | 29               |
|                 | Esfenvalerate | Asana XL 0.66<br>Dupont Crop Protect. | 1 gal   | 08/01/05                    | 19                                  | 28               |

<sup>1</sup>Storage temperatures represent time from receipt of test substance by Principal Investigator to last application.  
<sup>2</sup>N/A = Not applicable. Dithane Rainshield was stored at NPAR chemical storage over the winter of 2004-2005. The minimum temperature could be as low as -30°C. However, the product is dry flowable and packed in the original package; and the storage room was dry.

Table 8: Equipment Calibration and Application

| Site Code & Crop | Plot No. | Test Compound   | App No. | Calibration Date | Calibrated GPA | Application Date |
|------------------|----------|-----------------|---------|------------------|----------------|------------------|
| AR01<br>Rice     | 2        | Mancozeb (1X)   | 1       | N/A              | N/A            | 05/16/05         |
|                  |          | Malathion (5X)  | 1       | 08/22/05         | 18.3           | 08/22/05         |
|                  |          | Malathion (5X)  | 2       | 08/29/05         | 18.4           | 08/29/05         |
|                  |          | Malathion (5X)  | 3       | 09/05/05         | 18.4           | 09/05/05         |
|                  |          | Malathion (5X)  | 4       | 09/12/05         | 18.4           | 09/12/05         |
|                  |          | Malathion (5X)  | 5       | 09/19/05         | 18.4           | 09/19/05         |
|                  |          | Carbofuran (5X) | 1       | N/A              | N/A            | 07/28/05         |
|                  | 3        | Mancozeb (5X)   | 1       | N/A              | N/A            | 05/16/05         |
|                  |          | Malathion (1X)  | 1       | 08/22/05         | 18.3           | 08/22/05         |
|                  |          | Malathion (1X)  | 2       | 08/29/05         | 18.4           | 08/29/05         |
|                  |          | Malathion (1X)  | 3       | 09/05/05         | 18.4           | 09/05/05         |
|                  |          | Malathion (1X)  | 4       | 09/12/05         | 18.4           | 09/12/05         |
|                  |          | Malathion (1X)  | 5       | 09/19/05         | 18.4           | 09/19/05         |
| CA01<br>Rice     | 5        | Mancozeb (1X)   | 1       | N/A              | N/A            | 05/19/05         |
|                  |          | Malathion (5X)  | 1       | 08/19/05         | 20             | 08/19/05         |
|                  |          | Malathion (5X)  | 2       | 08/30/05         | 20             | 08/30/05         |
|                  |          | Malathion (5X)  | 3       | 09/09/05         | 20             | 09/09/05         |
|                  |          | Malathion (5X)  | 4       | 09/19/05         | 20             | 09/19/05         |
|                  |          | Malathion (5X)  | 5       | 09/29/05         | 20             | 09/29/05         |
|                  |          | Carbofuran (5X) | 1       | N/A              | N/A            | 08/07/05         |
|                  | 6        | Mancozeb (5X)   | 1       | N/A              | N/A            | 05/19/05         |
|                  |          | Malathion (1X)  | 1       | 08/19/05         | 20             | 08/19/05         |
|                  |          | Malathion (1X)  | 2       | 08/30/05         | 20             | 08/30/05         |
|                  |          | Malathion (1X)  | 3       | 09/09/05         | 20             | 09/09/05         |
|                  |          | Malathion (1X)  | 4       | 09/19/05         | 20             | 09/19/05         |
|                  |          | Malathion (1X)  | 5       | 09/29/05         | 20             | 09/29/05         |

Table 8: Equipment Calibration and Application (Continued)

| Site Code & Crop | Plot No. | Test Compound   | App No. | Calibration Date | Calibrated GPA | Application Date |
|------------------|----------|-----------------|---------|------------------|----------------|------------------|
| ND01<br>Wheat    | 8        | Carbofuran (1X) | 1       | 08/05/05         | 20             | 08/05/05         |
|                  |          | Carbofuran (1X) | 2       | 08/12/05         | 20             | 08/12/05         |
|                  |          | Mancozeb (5X)   | 1       | 07/24/05         | 20             | 07/24/05         |
|                  |          | Mancozeb (5X)   | 2       | 07/31/05         | 20             | 07/31/05         |
|                  |          | Mancozeb (5X)   | 3       | 08/07/05         | 20             | 08/07/05         |
|                  | 9        | Carbofuran (5X) | 1       | 08/05/05         | 20             | 08/05/05         |
|                  |          | Carbofuran (5X) | 2       | 08/12/05         | 20             | 08/12/05         |
|                  |          | Mancozeb (1X)   | 1       | 07/24/05         | 20             | 07/24/05         |
|                  |          | Mancozeb (1X)   | 2       | 07/31/05         | 20             | 07/31/05         |
|                  |          | Mancozeb (1X)   | 3       | 08/07/05         | 20             | 08/07/05         |
| MO01<br>Wheat    | 11       | Carbofuran (1X) | 1       | 06/18/05         | 23.4           | 06/18/05         |
|                  |          | Carbofuran (1X) | 2       | 06/29/05         | 20             | 06/29/05         |
|                  |          | Mancozeb (5X)   | 1       | 06/11/05         | 24.6           | 06/11/05         |
|                  |          | Mancozeb (5X)   | 2       | 06/18/05         | 23.4           | 06/18/05         |
|                  |          | Mancozeb (5X)   | 3       | 06/24/05         | 23.4           | 06/24/05         |
|                  | 12       | Carbofuran (5X) | 1       | 06/18/05         | 23.4           | 06/18/05         |
|                  |          | Carbofuran (5X) | 2       | 06/29/05         | 20             | 06/29/05         |
|                  |          | Mancozeb (1X)   | 1       | 06/11/05         | 24.6           | 06/11/05         |
|                  |          | Mancozeb (1X)   | 2       | 06/18/05         | 23.4           | 06/18/05         |
|                  |          | Mancozeb (1X)   | 3       | 06/24/05         | 23.4           | 06/24/05         |

Table 8: Equipment Calibration and Application (Continued)

| Site Code & Crop | Plot No. | Test Compound      | App No. | Calibration Date | Calibrated GPA | Application Date |
|------------------|----------|--------------------|---------|------------------|----------------|------------------|
| AR02<br>Soybean  | 14       | Carbofuran (1X)    | 1       | 09/01/05         | 9.5            | 09/01/05         |
|                  |          | Carbofuran (1X)    | 2       | 09/08/05         | 9.5            | 09/08/05         |
|                  |          | Clethodim (5X)     | 1       | 07/31/05         | 9.5            | 07/31/05         |
|                  |          | Esfenvalerate (1X) | 1       | 08/17/05         | 9.5            | 08/17/05         |
|                  |          | Esfenvalerate (1X) | 2       | 08/25/05         | 9.5            | 08/25/05         |
|                  |          | Esfenvalerate (1X) | 3       | 09/01/05         | 9.5            | 09/01/05         |
|                  |          | Esfenvalerate (1X) | 4       | 09/08/05         | 9.5            | 09/08/05         |
|                  | 15       | Carbofuran (5X)    | 1       | 09/01/05         | 9.5            | 09/01/05         |
|                  |          | Carbofuran (5X)    | 2       | 09/08/05         | 9.5            | 09/08/05         |
|                  |          | Clethodim (1X)     | 1       | 07/31/05         | 9.5            | 07/31/05         |
|                  |          | Esfenvalerate (5X) | 1       | 08/17/05         | 9.5            | 08/17/05         |
|                  |          | Esfenvalerate (5X) | 2       | 08/25/05         | 9.5            | 08/25/05         |
|                  |          | Esfenvalerate (5X) | 3       | 09/01/05         | 9.5            | 09/01/05         |
|                  |          | Esfenvalerate (5X) | 4       | 09/08/05         | 9.5            | 09/08/05         |
| IA01<br>Soybean  | 17       | Carbofuran (1X)    | 1       | 09/10/05         | 14.6           | 09/10/05         |
|                  |          | Carbofuran (1X)    | 2       | 09/16/05         | 14.6           | 09/16/05         |
|                  |          | Clethodim (5X)     | 1       | 08/09/05         | 14.9           | 08/09/05         |
|                  |          | Esfenvalerate (1X) | 1       | 08/26/05         | 13.3           | 08/26/05         |
|                  |          | Esfenvalerate (1X) | 2       | 09/03/05         | 14.4           | 09/03/05         |
|                  |          | Esfenvalerate (1X) | 3       | 09/10/05         | 14.6           | 09/10/05         |
|                  |          | Esfenvalerate (1X) | 4       | 09/16/05         | 14.6           | 09/16/05         |
|                  | 18       | Carbofuran (5X)    | 1       | 09/10/05         | 14.6           | 09/10/05         |
|                  |          | Carbofuran (5X)    | 2       | 09/16/05         | 14.6           | 09/16/05         |
|                  |          | Clethodim (1X)     | 1       | 08/09/05         | 14.9           | 08/09/05         |
|                  |          | Esfenvalerate (5X) | 1       | 08/26/05         | 13.3           | 08/26/05         |
|                  |          | Esfenvalerate (5X) | 2       | 09/03/05         | 14.4           | 09/03/05         |
|                  |          | Esfenvalerate (5X) | 3       | 09/10/05         | 14.6           | 09/10/05         |
|                  |          | Esfenvalerate (5X) | 4       | 09/16/05         | 14.6           | 09/16/05         |



**Table 9: Application**

| Site Code | Plot | Test Compound   | App No. | Equipment Type                         | Nozzle Type                         | Nozzle Tip No.  | Nozzle No. | Spacing (in.) | Pressure Source | Approx. Pressure (psi) |  |  |
|-----------|------|-----------------|---------|--|-------------------------------------|-----------------|------------|---------------|-----------------|------------------------|--|--|
| AR01      | 2    | Mancozeb (1X)   | 1       | Not applicable to this seed treatment. |                                     |                 |            |               |                 |                        |  |  |
|           |      | Malathion (5X)  | 1       | Backpack Sprayer                       | Flat Fan                            | TeeJet AI110015 | 8          | 18            | CO <sub>2</sub> | 42                     |  |  |
|           |      | Malathion (5X)  | 2       | Backpack Sprayer                       | Flat Fan                            | TeeJet AI110015 | 8          | 18            | CO <sub>2</sub> | 42                     |  |  |
|           |      | Malathion (5X)  | 3       | Backpack Sprayer                       | Flat Fan                            | TeeJet AI110015 | 8          | 18            | CO <sub>2</sub> | 42                     |  |  |
|           |      | Malathion (5X)  | 4       | Backpack Sprayer                       | Flat Fan                            | TeeJet AI110015 | 8          | 18            | CO <sub>2</sub> | 42                     |  |  |
|           |      | Malathion (5X)  | 5       | Backpack Sprayer                       | Flat Fan                            | TeeJet AI110015 | 8          | 18            | CO <sub>2</sub> | 42                     |  |  |
|           |      | Carbofuran (5X) | 1       | Hand-held Seeder                       | Not applicable to this application. |                 |            |               |                 |                        |  |  |
|           |      | Mancozeb (5X)   | 1       | Not applicable to this seed treatment. |                                     |                 |            |               |                 |                        |  |  |
|           |      | Malathion (1X)  | 1       | Backpack Sprayer                       | Flat Fan                            | TeeJet AI110015 | 8          | 18            | CO <sub>2</sub> | 42                     |  |  |
|           |      | Malathion (1X)  | 2       | Backpack Sprayer                       | Flat Fan                            | TeeJet AI110015 | 8          | 18            | CO <sub>2</sub> | 42                     |  |  |
|           |      | Malathion (1X)  | 3       | Backpack Sprayer                       | Flat Fan                            | TeeJet AI110015 | 8          | 18            | CO <sub>2</sub> | 42                     |  |  |
|           |      | Malathion (1X)  | 4       | Backpack Sprayer                       | Flat Fan                            | TeeJet AI110015 | 8          | 18            | CO <sub>2</sub> | 42                     |  |  |
|           |      | Malathion (1X)  | 5       | Backpack Sprayer                       | Flat Fan                            | TeeJet AI110015 | 8          | 18            | CO <sub>2</sub> | 42                     |  |  |

**Table 9: Application (Continued)**

| Site Code | Plot           | Test Compound   | App No.          | Equipment Type                         | Nozzle Type | Nozzle Tip No. | Nozzle No. | Spacing (in.)   | Pressure Source | Approx. Pressure (psi) |  |  |
|-----------|----------------|-----------------|------------------|--|-------------|----------------|------------|-----------------|-----------------|------------------------|--|--|
| CA01      | 5              | Mancozeb (1X)   | 1                | Not applicable to this seed treatment. |             |                |            |                 |                 |                        |  |  |
|           |                | Malathion (5X)  | 1                | Backpack Sprayer                       | Flat Fan    | TeeJet 8002    | 12         | 20              | CO <sub>2</sub> | 22                     |  |  |
|           |                | Malathion (5X)  | 2                | Backpack Sprayer                       | Flat Fan    | TeeJet 8002    | 12         | 20              | CO <sub>2</sub> | 22                     |  |  |
|           |                | Malathion (5X)  | 3                | Backpack Sprayer                       | Flat Fan    | TeeJet 8002    | 12         | 20              | CO <sub>2</sub> | 22                     |  |  |
|           |                | Malathion (5X)  | 4                | Backpack Sprayer                       | Flat Fan    | TeeJet 8002    | 12         | 20              | CO <sub>2</sub> | 22                     |  |  |
|           |                | Malathion (5X)  | 5                | Backpack Sprayer                       | Flat Fan    | TeeJet 8002    | 12         | 20              | CO <sub>2</sub> | 22                     |  |  |
|           |                | Carbofuran (5X) | 1                | Spread by hand.                        |             |                |            |                 |                 |                        |  |  |
|           |                | Mancozeb (5X)   | 1                | Not applicable to this seed treatment. |             |                |            |                 |                 |                        |  |  |
|           |                | Malathion (1X)  | 1                | Backpack Sprayer                       | Flat Fan    | TeeJet 8002    | 12         | 20              | CO <sub>2</sub> | 22                     |  |  |
|           |                | Malathion (1X)  | 2                | Backpack Sprayer                       | Flat Fan    | TeeJet 8002    | 12         | 20              | CO <sub>2</sub> | 22                     |  |  |
|           | Malathion (1X) | 3               | Backpack Sprayer | Flat Fan                               | TeeJet 8002 | 12             | 20         | CO <sub>2</sub> | 22              |                        |  |  |
|           | Malathion (1X) | 4               | Backpack Sprayer | Flat Fan                               | TeeJet 8002 | 12             | 20         | CO <sub>2</sub> | 22              |                        |  |  |
|           | Malathion (1X) | 5               | Backpack Sprayer | Flat Fan                               | TeeJet 8002 | 12             | 20         | CO <sub>2</sub> | 22              |                        |  |  |
|           | 6              |                 |                  |  |             |                |            |                 |                 |                        |  |  |

**Table 9: Application (Continued)**

| Site Code | Plot | Test Compound   | App No. | Equipment Type | Nozzle Type | Nozzle Tip No. | Nozzle No. | Spacing (in.) | Pressure Source | Approx. Pressure (psi) |
|-----------|------|-----------------|---------|----------------|-------------|----------------|------------|---------------|-----------------|------------------------|
| ND01      | 8    | Carbofuran (1X) | 1       | Boom Sprayer   | Flat Fan    | TeeJet 8002    | 12         | 20            | Compressed air  | 40                     |
|           |      | Carbofuran (1X) | 2       | Boom Sprayer   | Flat Fan    | TeeJet 8002    | 12         | 20            | Compressed air  | 40                     |
|           |      | Mancozeb (5X)   | 1       | Boom Sprayer   | Flat Fan    | TeeJet 8002    | 12         | 20            | Compressed air  | 40                     |
|           |      | Mancozeb (5X)   | 2       | Boom Sprayer   | Flat Fan    | TeeJet 8002    | 12         | 20            | Compressed air  | 40                     |
|           |      | Mancozeb (5X)   | 3       | Boom Sprayer   | Flat Fan    | TeeJet 8002    | 12         | 20            | Compressed air  | 40                     |
|           |      | Carbofuran (5X) | 1       | Boom Sprayer   | Flat Fan    | TeeJet 8002    | 12         | 20            | Compressed air  | 40                     |
|           | 9    | Carbofuran (5X) | 2       | Boom Sprayer   | Flat Fan    | TeeJet 8002    | 12         | 20            | Compressed air  | 40                     |
|           |      | Mancozeb (1X)   | 1       | Boom Sprayer   | Flat Fan    | TeeJet 8002    | 12         | 20            | Compressed air  | 40                     |
|           |      | Mancozeb (1X)   | 2       | Boom Sprayer   | Flat Fan    | TeeJet 8002    | 12         | 20            | Compressed air  | 40                     |
|           |      | Mancozeb (1X)   | 3       | Boom Sprayer   | Flat Fan    | TeeJet 8002    | 12         | 20            | Compressed air  | 40                     |

Table 9: Application (Continued)

| Site Code | Plot | Test Compound   | App No. | Equipment Type   | Nozzle Type | Nozzle Tip No. | Nozzle No. | Spacing (in.) | Pressure Source | Approx. Pressure (psi) |
|-----------|------|-----------------|---------|------------------|-------------|----------------|------------|---------------|-----------------|------------------------|
| MO01      |      | Carbofuran (1X) | 1       | Backpack Sprayer | Flat Fan    | TeeJet 110-02  | 6          | 20            | CO <sub>2</sub> | 40                     |
|           |      | Carbofuran (1X) | 2       | Backpack Sprayer | Flat Fan    | TeeJet 110-02  | 6          | 20            | CO <sub>2</sub> | 30                     |
|           |      | Mancozeb (5X)   | 1       | Backpack Sprayer | Flat Fan    | TeeJet 110-02  | 6          | 20            | CO <sub>2</sub> | 40                     |
|           |      | Mancozeb (5X)   | 2       | Backpack Sprayer | Flat Fan    | TeeJet 110-02  | 6          | 20            | CO <sub>2</sub> | 40                     |
|           |      | Mancozeb (5X)   | 3       | Backpack Sprayer | Flat Fan    | TeeJet 110-02  | 6          | 20            | CO <sub>2</sub> | 40                     |
|           |      | Carbofuran (5X) | 1       | Backpack Sprayer | Flat Fan    | TeeJet 110-02  | 6          | 20            | CO <sub>2</sub> | 40                     |
|           |      | Carbofuran (5X) | 2       | Backpack Sprayer | Flat Fan    | TeeJet 110-02  | 6          | 20            | CO <sub>2</sub> | 30                     |
|           |      | Mancozeb (1X)   | 1       | Backpack Sprayer | Flat Fan    | TeeJet 110-02  | 6          | 20            | CO <sub>2</sub> | 40                     |
|           |      | Mancozeb (1X)   | 2       | Backpack Sprayer | Flat Fan    | TeeJet 110-02  | 6          | 20            | CO <sub>2</sub> | 40                     |
| AR02      | 14   | Carbofuran (1X) | 1       | Boom Sprayer     | Hollow Cone | TeeJet TX6     | 8          | 18            | CO <sub>2</sub> | 45                     |
|           |      | Carbofuran (1X) | 2       | Boom Sprayer     | Hollow Cone | TeeJet TX6     | 8          | 18            | CO <sub>2</sub> | 45                     |