## Purdue Extension 2018 Dicamba Training Evaluation Preliminary Report June 14, 2018

Please note: This preliminary report of the evaluation of the dicamba training has been compiled by Julie Huetteman, Coordinator, Extension Strategic Initiatives, to share with the Pesticide Review Board meeting on June 14, 2018. This is an initial run of the data. Further analysis and refinement will be conducted this summer. Please share if you have any feedback or questions about the data.

#### **Implementation and Delivery**

The 2018 dicamba training was delivered by the Office of the Indiana State Chemist and Purdue Extension. Coordinated efforts from campus and county made the training available across the state.

- From January 1 to April 30, 2018, there were 193 PARP sessions that provided training on dicamba that were delivered in person across Indiana or via technology.
- These training sessions were attended by 5,669 private pesticide applicators who are currently certified in Indiana. There may also have been additional attendees, who were not certified private pesticide applicators (CCAs, Commercial, etc.), whose numbers were not tracked.

### **Evaluation Efforts**

In many of the training sessions, program evaluations were conducted. A survey was distributed at the end of the training for attendees to complete. A total of 3,898 evaluations were collected for statewide compilation. Evaluations were from 78 counties, across the 10 areas and 5 districts of Indiana.

| Adams       | Greene     | Marshall   | Shelby      |
|-------------|------------|------------|-------------|
| Allen       | Hamilton   | Miami      | Spencer     |
| Bartholomew | Hancock    | Monroe     | Starke      |
| Benton      | Harrison   | Montgomery | Steuben     |
| Blackford   | Hendricks  | Morgan     | Sullivan    |
| Boone       | Howard     | Newton     | Switzerland |
| Carroll     | Huntington | Noble      | Tippecanoe  |
| Cass        | Jackson    | Orange     | Tipton      |
| Clark       | Jasper     | Owen       | Union       |
| Clay        | Jay        | Parke      | Vanderburgh |
| Clinton     | Jefferson  | Perry      | Vermillion  |
| Daviess     | Jennings   | Pike       | Vigo        |
| Decatur     | Johnson    | Porter     | Wabash      |
| DeKalb      | Knox       | Posey      | Warrick     |
| Delaware    | Koscuisko  | Pulaski    | Washington  |
| Dubois      | LaGrange   | Putnam     | Wells       |
| Elkhart     | Lake       | Randolph   | White       |
| Fountain    | LaPorte    | Ripley     | Whitley     |
| Franklin    | Lawrence   | Rush       |             |
| Gibson      | Marion     | Scott      |             |
|             |            |            |             |

#### **Evaluation Results**

This is a first run on the data that were collected. Simple counts and percentages are shared here. More analysis will be completed this summer.

### <u>Acreage</u>

Responses showed that most attendees reported having over 1,000 acres.

| Acres               | # of Responses |
|---------------------|----------------|
| Doesn't apply to me | 362 (10%)      |
| 50 or less          | 109 (3%)       |
| 51 to 100           | 127 (3%)       |
| 101 to 500          | 636 (17%)      |
| 501 to 1000         | 614 (16%)      |
| Over 1000           | 1874 (50%)     |
| Grand Total         | 3722           |

How many acres do you currently farm or advise?

## Knowledge - Before and After Training

Attendees indicated their level of knowledge of potential dicamba issues before and after the training. In general, across the dicamba issues, the average scores on the responses are showing movement toward an increase in knowledge after training compared to before the training. (Counts and percentages of responses are posted in data tables at the end.)

| What is your level of knowledge about these? | Average level of knowledge (1= None, 4=Expert) |
|--|--|
| "Decreasing drift"                           | Before = 2.4 After = 3.1                       |
| "Decreasing volatilization"                  | Before = 2.3 After = 3.0                       |
| "Buffers of at least 110 feet"               | Before = 2.2 After = 3.1                       |
| "Wind direction toward sensitive crops"      | Before = 2.4 After = 3.1                       |
| "Wind speed between 3 and 10 mph"            | Before = 2.3 After = 3.1                       |
| "Rainfall forecast within 24 hours"          | Before = 2.1 After = 3.1                       |
| "Regulatory authority of drift complaints"   | Before = 2.1 After = 3.0                       |

#### Knowledge scores

Attendees were asked to select the correct response to the following. The largest percentage of attendees (98.8%) correctly identified the boom height.

| Knowledge Question  | % Correct |
|---|-----------|
| What is the proper boom height for dicamba application? (n=3713)                      | 98.8%     |
| What is dicamba volatilization? (n=3489)  | 95.7%     |
| How do you locate dicamba sensitive crops in your area? (n=3591)                      | 82.0%     |
| Where do you find information on the proper nozzles for dicamba application? (n=3227) | 62.9%     |
| What is drift with dicamba application? (n=3387)                                      | 20.4%     |

## Planned Actions in 2018

Attendees indicated actions they are planning to take in 2018. The largest number of attendees indicated that they would: 1) Maintain required records, 2) Review updated dicamba regulations, and 3) Prepare checklist for spray day. On each of these items there were 10%-18% responses from attendees who indicated these actions did not apply to them.

| Actions Planning to Take in 2018               | % Yes |
|--|-------|
| Maintain required records (n=3699)             | 75.6% |
| Review updated dicamba regulations (n=3712)    | 75.4% |
| Prepare checklist for spray day (n=3688)       | 72.4% |
| Inventory sprayer nozzles (n=3709)             | 63.4% |
| Survey nearby dicamba sensitive crops (n=3707) | 62.2% |
| Map out buffers (n=3697)                       | 55.5% |
| Plant dicamba-ready beans in 2018 (n=3729)     | 50.8% |
| Apply/Advise dicamba in 2018 (n=3731)          | 45.7% |

### Recommendations

The evaluation for this training was created to capture a moment in time when a single course would be made available to all who are PARP certified. From this designed and implemented project of statewide coordination, we were able to collect a lot of helpful information.

Based on this preliminary look at the data, the attendees appear to have gained knowledge about the issues related to use of dicamba. A majority of the attendees indicated that they plan to take on recommended practices for dicamba application.

Further analysis will be completed for reporting on the impact of knowledge gained and intentions for adoption of practices in 2018.

Knowledge - Before and After Training Data on the Reponses What is your level of knowledge about these? (Data shown indicate the numbers (and percentages) of attendee responses.)

"Decreasing drift"

| Level of knowledge | Before training | After training |
|--------------------|-----------------|----------------|
| None               | 201 (5.3%)      | 11 (0.3%)      |
| Some               | 2134 (56.6%)    | 280 (7.8%)     |
| Much               | 1319 (35.0%)    | 2760 (77.1%)   |
| Expert             | 113 (3.0%)      | 528 (14.8%)    |
| Grand Total        | 3767            | 3579           |

#### "Decreasing volatilization"

| Level of knowledge | Before training | After training |
|--------------------|-----------------|----------------|
| 1 None             | 306 (8.1%)      | 14 (0.4%)      |
| 2 Some             | 2286 (60.8%)    | 396 (11.1%)    |
| 3 Much             | 1075 (28.6%)    | 2693 (75.3%)   |
| 4 Expert           | 93 (2.5%)       | 471 (13.2%)    |
| Grand Total        | 3760            | 3574           |

"Buffers of at least 110 feet"

| Level of knowledge | Before training | After training |
|--------------------|-----------------|----------------|
| 1 None             | 629 (16.7%)     | 9 (0.3%)       |
| 2 Some             | 1908 (50.8%)    | 272 (7.6%)     |
| 3 Much             | 1067 (28.4%)    | 2616 (73.3%)   |
| 4 Expert           | 153 (4.1%)      | 672 18.8%)     |
| Grand Total        | 3757            | 3569           |

"Wind direction toward sensitive crops"

| Level of knowledge | Before training | After training |
|--------------------|-----------------|----------------|
| 1 None             | 236 (6.3%)      | 9 (0.3%)       |
| 2 Some             | 1853 (49.4%)    | 216 (6.1%)     |
| 3 Much             | 1449 (38.7%)    | 2630 (73.8%)   |
| 4 Expert           | 211 (5.6%)      | 711 (19.9%)    |
| Grand Total        | 3749            | 3566           |

# "Wind speed between 3 and 10 mph"

| Level of knowledge | Before training | After training |
|--------------------|-----------------|----------------|
| 1 None             | 439 (11.7%)     | 7 (0.2%)       |
| 2 Some             | 1810 (48.2%)    | 221 (6.2%)     |
| 3 Much             | 1281 (34.1%)    | 2585 (72.1%)   |
| 4 Expert           | 226 (6.0%)      | 770 (21.5%)    |
| Grand Total        | 3756            | 3583           |

## "Rainfall forecast within 24 hours"

| Level of knowledge | Before training | After training |
|--------------------|-----------------|----------------|
| 1 None             | 867 (23.1%)     | 11 (0.3%)      |
| 2 Some             | 1881 (50.1%)    | 279 (7.8%)     |
| 3 Much             | 876 (23.3%)     | 2604 (72.9%)   |
| 4 Expert           | 132 (3.5%)      | 678 (19.0%)    |
| Grand Total        | 3756            | 3572           |

"Regulatory authority of drift complaints"

| Level of knowledge | Before training | After training |
|--------------------|-----------------|----------------|
| 1 None             | 667 (17.8%)     | 27 (0.8%)      |
| 2 Some             | 2166 (57.9%)    | 480 (13.5%)    |
| 3 Much             | 805 (21.5%)     | 2555 (71.7%)   |
| 4 Expert           | 101 (2.7%)      | 501 (14.1%)    |
| Grand Total        | 3739            | 3563           |