Engenia Field Investigation Guidelines

Expectation Setting with Retailer/Applicator

Prior to the field season, each BR/IS needs to set mutual expectations with their key retailers/growers on the complaint process that will be followed for the 2017 use season.

NOTE: A grower may report a claim at www.non-performance.basf.us. Technekes will route these to the appropriate BR/IS rep for investigation.

NOTE: Pictures may be taken to document what you observe on a complaint; however, they may not be needed and will have to be catalogued appropriately.

Efficacy Complaints:

- EPA requires weed resistance monitoring with new dicamba and 2,4-D tolerant crops.
- BASF must investigate all Engenia efficacy complaints to monitor for potential weed resistance and will provide a summary to the EPA at the end of the year.
- Outline communication process for mutual understanding of contacts and timelines.
    - Grower contacts Retailer, then Retailer contacts BASF BR/IS.
    - Retailer should be encouraged to investigate the alleged complaint prior to the BASF investigation.
    - BASF or its representative should investigate lack of herbicide efficacy within 2-3 days of contact if possible
    - A thorough evaluation of potential reasons for lack of control will be conducted including key label parameters followed (e.g., rate, weed size), coverage achieved, environmental factors, and field history. Refer to checklist for complete list of points covered.
    - If resistance is not likely, BASF representative will recommend a solution to the grower, identify why control wasn't achieved, and record all information.
    - If resistance is suspected, BASF will engage with grower to control and prevent spread with specific recommendations. BASF TSR will be contacted for additional follow up and sampling.
    - All Engenia efficacy inquiries will be investigated regardless of how the product was purchased (e.g., via a BASF authorized retailer or non-authorized broker). Resistance monitoring investigation does not imply the grower will receive a BASF courtesy settlement!
- **NOTE:** All information collected must be accurate and complete to ensure accurate reporting to EPA.

Alleged Off-Target Complaints:

- **NOTE:** BASF is not responsible for off-target drift/tank contamination and any involvement on an alleged complaint is strictly an advisory role.

- There is no EPA mandate that requires BASF to investigate off-target complaints; however, if requested, BASF will visit the site of the alleged drift/tank contamination to provide technical advice on behalf of our applicator customer and to steward BASF technology.
- Ensure that the applicator is educated on required Engenia label application parameters and the decision process on when and when not to apply. Local state requirements may be more restrictive than approved federal label so make sure these are fully understood.
- Retailer and/or COI (e.g., consultant) will likely be first responder. As such, the more educated they are on dicamba symptomology, potential recovery, and yield impact the more they may be able to address concerns at the start of a complaint.
- Outline communication process for alleged off-target complaints and timelines:
    - Grower -> Retailer -> BASF BR/IS.
    - BASF or its representative will respond quickly in an advisory role to investigate and provide guidance on potential recovery and yield impact.
    - BASF will collect key application and environmental information.
- All application information should be gathered prior to the field visit. Based on the information and weather data gathered, ensure that the applicator is informed if the application was made inconsistent with the Engenia label.
    - This information will not be shared with local state pesticide enforcement and should not be shared with the alleged complainant.
- Before visiting an alleged off-target site, discuss with the applicator how he/she wants to handle, assess, or settle any potential yield loss. Ensure that the applicator understands that BASF will not accept liability for off-target complaints.
    - Is he/she willing to take the field to yield?
    - Does he/she prefer to monitor the field before deciding if there is a yield loss.
    - Is he/she willing to make an offer to pay that day? How much?
    - Will he/she turn it over to insurance?
- When investigating the field, do not make speculative statements. After investigation, it may appear "obvious" that the applicator in question drifted onto the suspect site but we cannot be 100% sure. Do NOT make statements like "It looks like he drifted onto your field". Refer to Q&A below for how to respond.

Q&A for Alleged Off-Target Investigations

Introduction at the Field

Hello, I am *Jane Smith* with BASF. I am here to investigate this claim and to address any questions that you may have.

Questions for the BASF Rep to Ask at the Field

- Could you please tell me what are your concerns? (The complainant may vent a lot of his concerns, so be prepared to listen. Ask if it is okay to take notes and ask clarifying questions.)
- When did you first see the symptoms?
- Where do you believe the drift came from?
- Did you witness the suspected application? (Verify date and time frame based on what you have been told. Does it correlate with the information that you have collected prior to the call?)

Walking the Field

After you have talked to the complainant, you will need to thoroughly examine the entire field for the level of symptomology, the pattern and gradient of symptomology to determine the likely cause of the crop response. Validate if the field symptoms and pattern are consistent with the information gathered prior to the field visit. After examining the suspect field, your questions may become more specific to the situation.

- If the symptom response gradient does not appear to be associated with an application to the field (i.e., tank contamination), evaluate severity of symptoms from potential source out into the field.
- If no gradient or appears to be uniform to an application made to the field, ask questions about potential sprayer contamination.

Key Talking Points

1. Is this Engenia drift?
    a. After investigating the field and viewing symptomology consistent with Plant Growth Herbicide symptomology:
        i. **This symptomology is consistent with a Plant Auxin type herbicide; however, there may be other things that can cause a similar response that we should consider.**
2. Who is going to pay for this? (If presented with the question when you first arrive at the field)
        i. **I understand that you have a concern about the condition of the crop. Let's take a closer look at the symptoms so we can better evaluate what the impact may or may not be to your crop.**
3. Will this hurt my soybean yield?
    a. After examining the soybean field, you determine that the terminal growth is not affected and only the new leaves are puckered:
        i. **This is a good sign, I can see that the terminal growth was not slowed or stopped and that new growth coming out of the top of the plant. This puckering on new leaves should stop after a few weeks. Based on our research, this symptomology will have no impact on soybean yield.**
    b. After examining the soybean field, you determine that the terminal growth was slowed or stopped (Note: this should not occur if proper application stewardship was followed or be very limited to a field edge at a worst case):

i. ***Terminal growth arrested:*** **I can see that the terminal growth has been stopped or slowed. With good growing conditions and time, these soybeans may fully recover with no lasting effect. Can we come back in 2 to 3 weeks to look at your crop? We will be better able to judge the potential for recovery then. (Privately, let the applicator know that if the drift occurred during the reproductive phases that there will likely be yield loss. The applicator will need to have a plan on how to handle.)**

4. Who is going to pay for this? (If after examining the field you are asked this question)

   i. ***Terminal growth not affected but leaves puckered:*** **Based on our research, this symptomology will have no impact on soybean yield. The soybeans will continue to grow and produce new leaves. There will be very little symptomology in 2 to 3 weeks. Can we come back and look at your crop then?**

   ii. ***Terminal growth arrested:*** **I can see that the terminal growth has been stopped or slowed. With good growing conditions, these soybeans may fully recover with no lasting effect. Can we come back in 2 to 3 weeks to look at your crop? We will be better able to judge the potential for recover then. (Privately, let the applicator know that if the drift occurred during the reproductive phases that there will likely be yield loss. The applicator will need to have a plan on how to handle the yield question at the follow up call based on amount of recovery observed.)**

5. Did the applicator spray the product incorrectly?

   i. **I am still collecting information, so I can't say one way or the other. These symptoms would indicate a very low rate of product moved off target. Based on our research, this symptomology will have no impact on soybean yield.**

6. Why is BASF not taking liability for the off-target damage?

   i. **BASF provides Best Management Practices on the label but there is never zero risk of spray drift. Some local judgement is always required. Even if applied per our label it is possible that some non-yield impacting soybean leaf symptomology may be visible beyond the downwind buffer zone even after the implementation of these practices.**

7. Should we take a plant sample to confirm that Engenia drifted onto my crop/garden?

   i. ***Soybean:*** **Based on the level of symptomology that we are seeing here, the potential rate of exposure was extremely low and dicamba may not be detectable given the time that has elapsed between exposure and symptoms showing up. Based on our research, this symptomology will have no impact on yield.**

   ii. ***Garden crop on dicamba MRL approved list:*** **Based on the level of symptomology that we are seeing here, the potential rate of exposure was extremely low and dicamba may not be detectable given the time that has elapsed between exposure and symptoms showing up. Based on our research, this level of symptomology is below the rates used to establish the tolerance.**

8. Is my pet/child safe (if suspected dicamba drift into a homeowner's yard)?
    i. **This is an herbicide that only has activity on plants and is used in many crops including lawns. If there was drift, it would be at an extremely low dose**
    ii. **If you are still concerned, they can call 1-800-832-HELP (4357) or Poison Control (800-222-1222)?**
9. Homeowner/Garden: Is this crop safe to eat? Can I sell this locally?
    a. If the crop is on dicamba MRL approved list:
        i. **Yes, BASF has conducted trials for the EPA showing that this crop is safe to eat/sell if it has been exposed to drift from dicamba**
    b. If the crop is NOT on the dicamba MRL approved list:
        i. **If you believe this crop has been exposed to dicamba then "No", a residue tolerance has not been established with the EPA and the crop/fruit can't be consumed**