

Herbicide Crop Injury, Herbicide Residual Injury

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Outline

1. Causes of Crop Injury
2. Diagnosing Herbicide Injury
3. Pictures of Drift Injury
4. Pictures of Residual Injury
5. Field Pictures



1. Causes of Crop Injury

- A. Long residual herbicides - carryover.
- B. Incorrect use of Roundup - drift.
- C. Incorrect use of very active herbicides.
- D. Use of inappropriate or unregistered herbicides.
- E. Big farms constraints.

A. Long Residual Herbicides

- **Sulfonylureas: Accent, Beacon, Permit, Matrix**
- **Imidazolinones: Scepter, Pursuit, Raptor**
- **Sulfonamides: Broadstrike, Firstrate**
- **Clomazone: Command**

B. Incorrect use of Roundup

Spraying in windy weather



C. Incorrect Use of Active Herbicides

- Rate too high
- Overlapping passes
- Inattention to plant back restrictions.

Always read the label in full



D. Use of Inappropriate or Unregistered Herbicides

- Similar names, e.g. Lorox Plus - mix of Lorox + Classic (SU).
- Herbicides that are registered on related field crops - e.g. Balance (field corn, not sweet corn)

E. Big Farms Constraints

- **Pressure to cover many acres in limited time - spray in bad weather.**
- **Poor cleaning of large equipment.**
- **Lack of understanding of potential problems.**

2. Diagnosing Herbicide Injury

- Document everything
- Observe the site ASAP
- Take photos of crops, weeds, drift patterns
- Collect injured and non-injured plant samples
- Collect spray mix, containers, water from source.

2. Diagnosing Herbicide Injury

- Obtain weather data from nearest weather station
- Obtain herbicide history of field for current and previous years
- Observe lay of land, elevation, source of irrigation, prevailing wind, condition of farm
- Observe crop and weed symptoms
- Observe weed control by species.

3. Pictures of Drift Injury



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Dicamba drift injury in Tomato

2,4-D drift injury in Watermelon





2,4-D drift injury in Cucumber

4. Pictures of Residual Injury



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Pumpkin - Clubbed Root



Maverick was applied on Wheat

No Herbicide Residue



Maverick Residue Injury on Pumpkin



5. Field Pictures



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Fertilizer Injector





Irrigation Switch – no bending

Watermelon



Cabbage



Cantaloupe/Rye



Pepper



Automated Irrigation in Pepper



Tomato - Early Season



Tomato - Mid-Season

