



South Dakota Pesticide Drift Incident Presentation

Sherrie Petersen, South Dakota Agriculture Inspector

Department of Agriculture



The Complaint process

- Complaints come in from the public and from other government agencies.
- The complainant may remain anonymous, but can't be notified of final action.
- Complainant is notified of the action taken by the department.



Ag Program Specialist Records Complaint Information

- The Dept. of Agriculture is required to investigate all complaints that are reported within 30 days after the date that damages occurred.
- At least 75% of the crop must be standing.
- The department has discretion after 30 days of noticing damage.



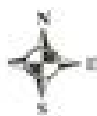
Process:

- The complaint is forwarded to an Ag. Inspector in the region where the complaint originated.



Created 2015/12/01

INSPECTOR AREAS AGRONOMY PROGRAMS & USDA PESTICIDE RECORDS



- Heather Rogers
- Kari Camillo
- Levi Clemen
- Virgil Sinning
- Sherrie Peterson
- Jim Koneche





The Ag. Inspector interviews complainant:

- Did they see the actual application?
- What were the date and time of the application?
- Do they remember the weather conditions at the time?
- Do they know who did the spraying?



Interview continued:

- If the complainant did any spraying on their own property, and if so, obtain records or information.
- Inspector will then proceed to damaged area and obtain samples, take photos and note if there is a visible drift pattern.



Inspector's Process

- Checks who owns the property adjacent to the complainant's damaged property.
- Documents if spraying took place, and if so, gathers the information.
- Also checks with county weed boards and Department of Transportation to see if any ROW spraying occurred in the complaint area.



Inspector's Process Cont.

- Sends samples to the South Dakota lab in Brookings for chemical analysis.
- Obtains weather data on date of application from a weather station nearest to the site.
- Or, from several weather stations surrounding the complaint site to determine weather patterns.



Drift Case Specifics

- On July 26, 2018, I receive a potential pesticide drift complaint that came in on a non-dicamba soybean field owned by Bill Smith.
- On July 23, 2018 is when Mr. Smith noticed damaged to his soybean field.
- Between July 11 and 12, 2018, Mr. Smith witnessed a sprayer and a truck parked



Cont. Drift Case Specifics

- Cont. in a Dicamba soybean field located NE of Mr. Smith's potentially damaged soybean field.
- Jim Wilson is the owner of the Dicamba soybean field located NE of Mr. Wilson's non-dicamba soybean field.



Cont. Drift Case Specifics

- On July 10, 2018, between the times of 5:00-8:45pm Mr. Wilson applied Xtendimax, RT3 and Affect.
- The local weather station reported a SSW wind at 10-15 mph with wind gusts up to 22 mph on July 10, 2018.



Cont. Drift Case Specifics

- Craig Johnson is the owner of a dicamba soybean field located NW of Mr. Smith's soybean field.
- On July 10, 2018, between the times of 6:30-11:30 am. Mr. Johnson applied Engenia, Roundup Powermax, Tapout, Zaar and Point Blank



Cont. Drift Case Specifics

- The local weather station reported a SE, SSE at 9-15 mph between the times of 5:53-11:53 am.
- The Local weather station reported a SSW wind at 10-15 mph with wind gusts up to 22 mph on July 10, 2018.



Cont. Drift Case Specifics

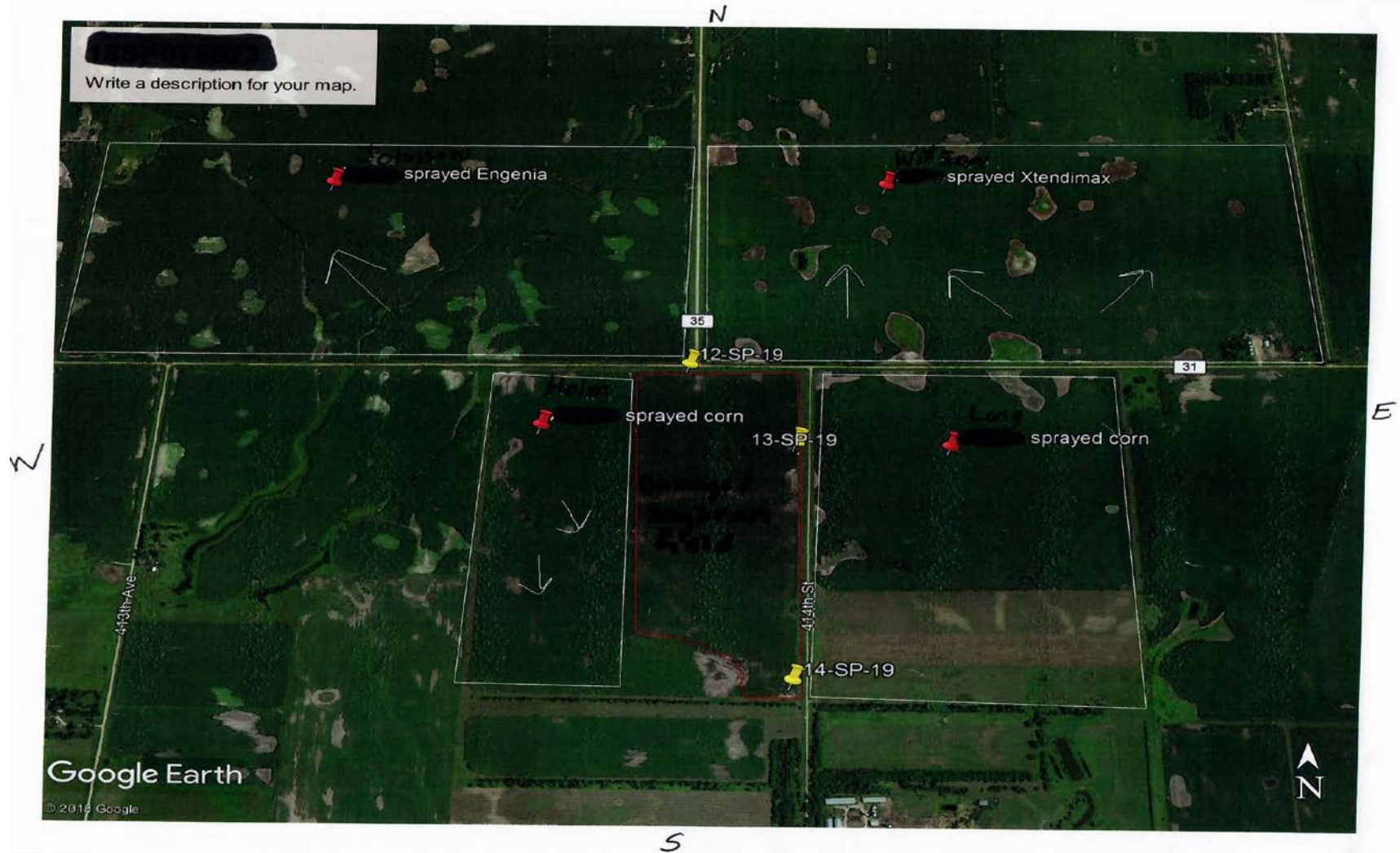
- Tony Holm is the owner of a corn field located west of Mr. Smith's damaged soybean field.
- Holm applied Roundup Powermax on June 12, 2018.
- The local weather station for June 12, 2018 between the times of 12:53-2:53pm indicated the wind was N, NNW at 7-9 mph



Cont. Drift Case Specifics

- John Long is the owner of a corn field located east of Mr. Smith's damaged soybean field.
- Long applied Status and Cornerstone on June 12, 2018, between the times of 1:00-3:00pm.
- The local weather station for June 12, 2018 between the times of 12:53-2:53pm indicated the wind was N, NNW at 7-9 mph

Google Map showing the damaged soybean field



This photo was taken facing south on the north end of the field.



3 foliage Samples were pulled. Sample Number 12 was pulled 25 Ft from the North fence line, on the North side of the damaged field.



This is a close of view of the soybean plant in sample number 12



Sample Number 13

Sample 13 was taken 30 Ft from the east side of the fence line, east side of the field

This is a close up view of the soybean plant in sample number 13



Sample Number 14

Sample Number 14 was taken 75 Ft from the shelter belt, south side of the field.

This is close up view of the soybean plant in sample number 14



This is a picture of the Dicamba field across the road where Mr. Smith noticed the spray truck sitting



Performed By:



Collected By:
Division of Agricultural Services
Foss Building 523 E. Capitol
Pierre, SD 57501-3182
Phone: (605) 773-4432
Fax: (605) 773-3481

Report Date: 2018-09-20

Final Report

Package ID: 20180730-001

South Dakota Agricultural Laboratories have examined the sample of

Product: Soybeans

Lot Number:

Inspector No: 12-SP-19

Collection Date: 2018-07-27

Date Received: 2018-07-31

Laboratory Number: 18R006363

Guarantor:

Agent/Owner:

Sample Collection
Location: 25 FT from the north fence line/ North side of field

ANALYTE	FOUND	DETECTION LIMIT	METHOD	DUPLICATE	BLANK	SPIKE REC %
2,4-D	5.74 ppb	2	GC-MS/MS	5.56	ND	100
Clethodim	ND ppb	5	LC-MS/MS	18R006364	ND	133
Dicamba	6.73 ppb	1	GC-MS/MS	7.07	ND	105
Dicamba Metabolite (DCSA)	ND ppb	50	GC-MS/MS	ND	ND	65
Diffufenzopyr	ND ppb	5	LC-MS/MS	ND	ND	105.9
Dimethenamid	ND ppb	5	LC-MS/MS	18R006364	ND	111
Glyphosate	467 ppb	10	LC-MS/MS	18R005727	ND	114

Additional active ingredients found but not requested

ANALYTE	FOUND	DUPLICATE
Atrazine	37.10 ppb	18R006371 ppb
Glufosinate	157.00 ppb	18R005727 ppb

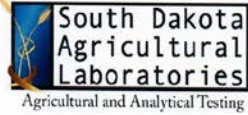
Comments:

Reviewed By: Regina Wixon, Ph.D.

THE RESULTS OF THIS EXAMINATION WILL BE PUBLISHED AS PROVIDED BY LAW.



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Report Date: 2018-09-20 Final Report Package ID: 20180730-002

South Dakota Agricultural Laboratories have examined the sample of

Product: Soybeans
 Lot Number:
 Inspector No: 13-SP-19
 Collection Date: 2018-07-27
 Date Received: 2018-07-31
 Laboratory Number: 18R006364

Guarantor:
 Agent/Owner: 

Sample Collection Location: 30 FT from the east fence line - East side of field

ANALYTE	FOUND	DETECTION LIMIT	METHOD	DUPLICATE	BLANK	SPIKE REC %
2,4-D	4.80 ppb	2	GC-MS/MS	18R006363	ND	100
Clethodim	ND ppb	5	LC-MS/MS	ND	ND	133
Dicamba	1.53 ppb	1	GC-MS/MS	18R006363	ND	105
Dicamba Metabolite (DCSA)	ND ppb	50	GC-MS/MS	18R006363	ND	65
Diflufenzopyr	ND ppb	5	LC-MS/MS	18R005632	ND	105.9
Dimethenamid	ND ppb	5	LC-MS/MS	ND	ND	111
Glyphosate	274 ppb	10	LC-MS/MS	18R005727 18R005727	ND	114

Additional active ingredients found but not requested

ANALYTE	FOUND	DUPLICATE
Atrazine	22.40 ppb	21.00 ppb
Glufosinate	161.00 ppb	18R005727 ppb

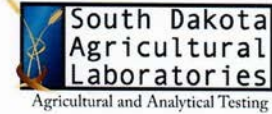
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South Dakota Agricultural Laboratories have examined the sample of

Product: Soybeans
 Lot Number:
 Inspector No: 14-SP-19
 Collection Date: 2018-07-27
 Date Received: 2018-07-31
 Laboratory Number: 18R006365

Guarantor:
 Agent/Owner: 

Sample Collection Location: 75 Ft from the shelter belt - south side of the field

ANALYTE	FOUND	DETECTION LIMIT	METHOD	DUPLICATE	BLANK	SPIKE REC %
2,4-D	5.61 ppb	2	GC-MS/MS	18R006363	ND	100
Clethodim	ND ppb	5	LC-MS/MS	18R006364	ND	133
Dicamba	1.30 ppb	1	GC-MS/MS	18R006363	ND	105
Dicamba Metabolite (DCSA)	ND ppb	50	GC-MS/MS	18R006363	ND	65
Diflufenzopyr	ND ppb	5	LC-MS/MS	18R006363	ND	105.9
Dimethenamid	ND ppb	5	LC-MS/MS	18R006364	ND	111
Glyphosate	492 ppb	10	LC-MS/MS	18R005727	ND	114

Additional active ingredients found but not requested

ANALYTE	FOUND	DUPLICATE
Atrazine	17.40 ppb	18R006371 ppb
Bromoxynil	<5 ppb	18R006363 ppb
Clopyralid	<5 ppb	18R006363 ppb
Glufosinate	160.00 ppb	18R005727 ppb
Picloram	6.66 ppb	18R006363 ppb

Comments:

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In Conclusion

- Mr. Wilson did not have the required Dicamba training to applicate the Dicamba product Xtendimax.
- Mr. Wilson also used RT3 and Affect which was not a approved tank mix.
- Mr. Wilson was also making an application over 10 mph.



In Conclusion

- The Xtedimax with VaporGrip Technology label states: Training Prior to applying this product in the 2018 growing season and each growing season thereafter, applicators must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete the training.
- The Xtendimax with VaporGrip Technology label states: Tank mixing instructions DO NOT tank mix any product with Xtendimax with VaporGrip Technology unless: The intended tank mix product is identified on the list of tested products.



In Conclusion

- The Xtedimax with VaporGrip Technology label states: Sprayer Setup Do Not apply when wind speeds are less than 3 mph or greater than 10 mph
- Mr. Wilson was fined \$2,000 dollars for the fines listed above.



Complete Investigation

- After field investigation is completed, the Ag. Inspector puts the information together and forwards it to the Enforcement Specialist with the Department of Ag.



Enforcement Specialist & Case Development

- Ag. Program Specialist will review the Inspector's report
- Assign follow-ups as needed
- Lab sample results are sent to Department of Agriculture in about 30-60 days.



Ag Specialist Summary

- The Ag Specialist will look for several things when recommending action:
 - Is everyone licensed?
 - Were pesticide labels followed?
 - Time frames between applications to damage symptoms.
 - Wind direction at the time of application.



Case Review:

- The Program Specialist makes a recommendation.
- Dept. staff collectively reviews the recommendation and a final decision is made.



Final Action

- No Action Taken – Summary Letter
- Penalties:
 - Warning Letter
 - Settlement Agreement
 - Revocation of License



No Response to Settlement Agreement

- Case file forwarded to Attorney General's Office



Final Action Received

- Summary Letter to Complainant
- Case Closed



Statics from 2018 Dicamba Drift Complaints

- 334 samples were taken in total of all the drift cases and sent into the lab
- 46 drift cases where reported

Questions?







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