

Message

From: ORR, THOMAS B [AG/1000] [thomas.b.orr@monsanto.com]
Sent: 9/13/2017 10:59:59 AM
To: VAUGHN, TY T [AG/1000] [ty.t.vaughn@monsanto.com]; BHAKTA, TINA [AG/1000] [tina.bhakta@monsanto.com]
Subject: FW: PERFUM MF1Scenario
Attachments: 1707753.000 - 6206 Monsanto dicamba MF analysis.pdf

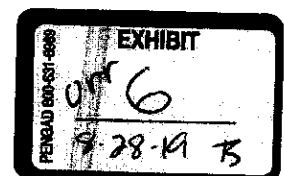
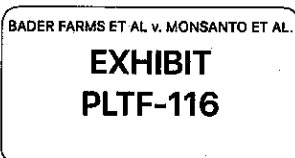
Ty and Tina,

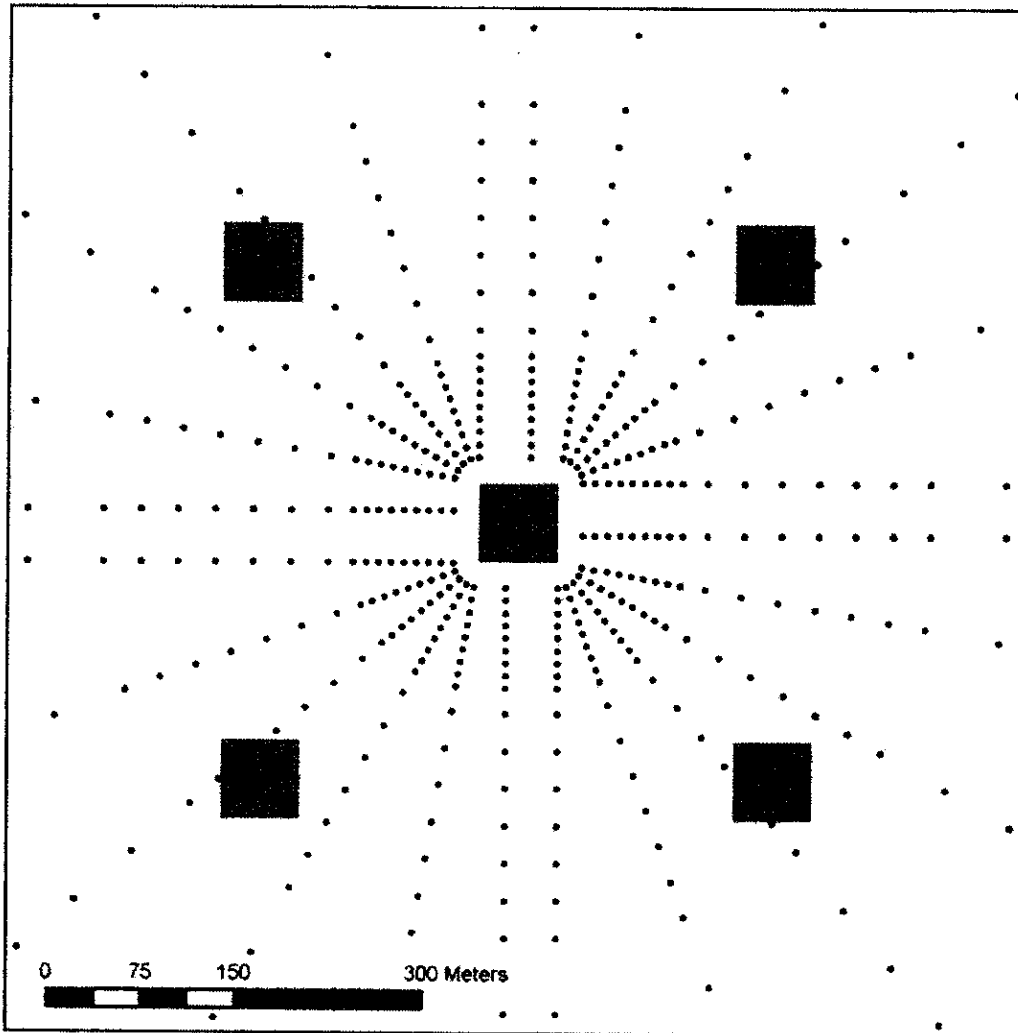
The attached proposal from exponent is to conduct the following analysis:

- Use EPA models to model simultaneous applications of Xmax+Pmax to five 80 acre fields (using flux data from TX field study) as represented by green squares in the figure below
- Three scenarios will be evaluated based on distance between fields:
 - 100 ft between fields
 - 250 ft between fields
 - 500 ft between fields
- Estimate air concentration at each location represented by a dot in the figure below to understand magnitude of simultaneous applications on off-target air concentrations

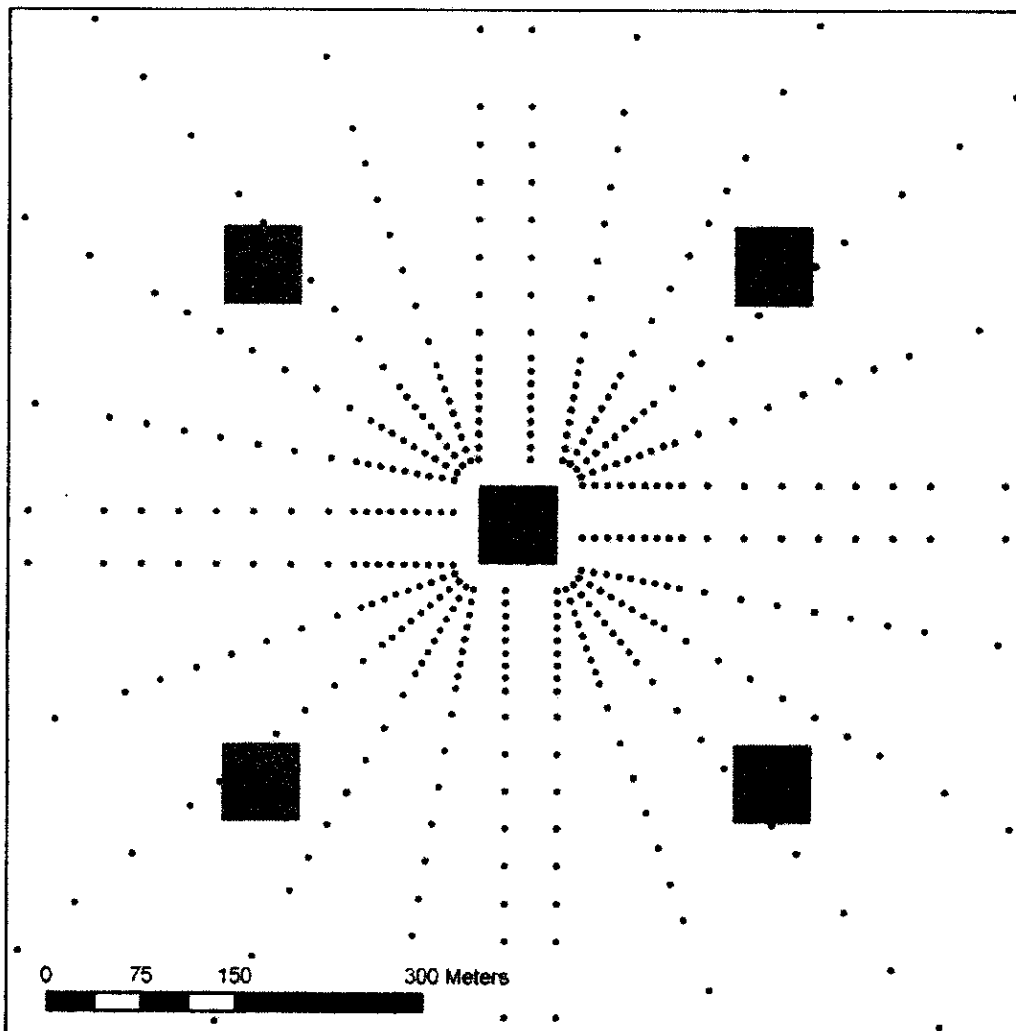
Benefits:

- This modeling exercise will allow us to evaluate the effects of simultaneous concentration to:
 - Further support our understanding that atmospheric loading of dicamba is not scientifically defensible
 - Present a quantitative and scientifically valid assessment of the effects of simultaneous applications to key stakeholders, including those in attendance at the academic summit
 - Provide a rebuttal to similar but more crude assessments presented at the second AR Dicamba Task Force Meeting
- This additional analysis would add to the weight of evidence that is currently available to support that landscape scale loading of dicamba is not supported by data, including using EPA's models





From: ORR, THOMAS B [AG/1000]
Sent: Tuesday, September 12, 2017 11:34 AM
To: BHAKTA, TINA [AG/1000] <tina.bhakta@monsanto.com>
Subject: FW: PERFUM MF1Scenario



From: Rick Reiss [<mailto:rreiss@exponent.com>]
Sent: Tuesday, September 12, 2017 10:43 AM
To: ORR, THOMAS B [AG/1000] <thomas.b.orr@monsanto.com>
Cc: PAI, NARESH [AG/1000] <naresh.pai@monsanto.com>; SALL, ERIK D [AG/1000] <erik.d.sall@monsanto.com>;
BEACHUM, COLLIN [AG/1000] <collin.beachum@monsanto.com>
Subject: RE: PERFUM MF1Scenario

Thomas,
Please see a proposal attached.

Rick

From: ORR, THOMAS B [AG/1000] [<mailto:thomas.b.orr@monsanto.com>]
Sent: Friday, September 8, 2017 1:54 PM
To: Rick Reiss <rreiss@exponent.com>
Cc: PAI, NARESH [AG/1000] <naresh.pai@monsanto.com>; SALL, ERIK D [AG/1000] <erik.d.sall@monsanto.com>;
BEACHUM, COLLIN [AG/1000] <collin.beachum@monsanto.com>
Subject: RE: PERFUM MF1Scenario

Thanks Rick. Agree multiple distances makes sense. Let's go with 100, 250, and 500 ft.

Tom

From: Rick Reiss [<mailto:rreiss@exponent.com>]
Sent: Friday, September 08, 2017 12:49 PM
To: ORR, THOMAS B [AG/1000] <thomas.b.orr@monsanto.com>
Cc: PAI, NARESH [AG/1000] <naresh.pai@monsanto.com>; SALL, ERIK D [AG/1000] <erik.d.sall@monsanto.com>; BEACHUM, COLLIN [AG/1000] <collin.beachum@monsanto.com>
Subject: RE: PERFUM MF1Scenario

Tom,

Sure. Will do. I would propose to use a variety of distances between the fields to assess the distance that starts to cause multiple field effects. I'm open to suggestions, but perhaps we could do 250, 500, 1000, 2000, and 5000 feet?

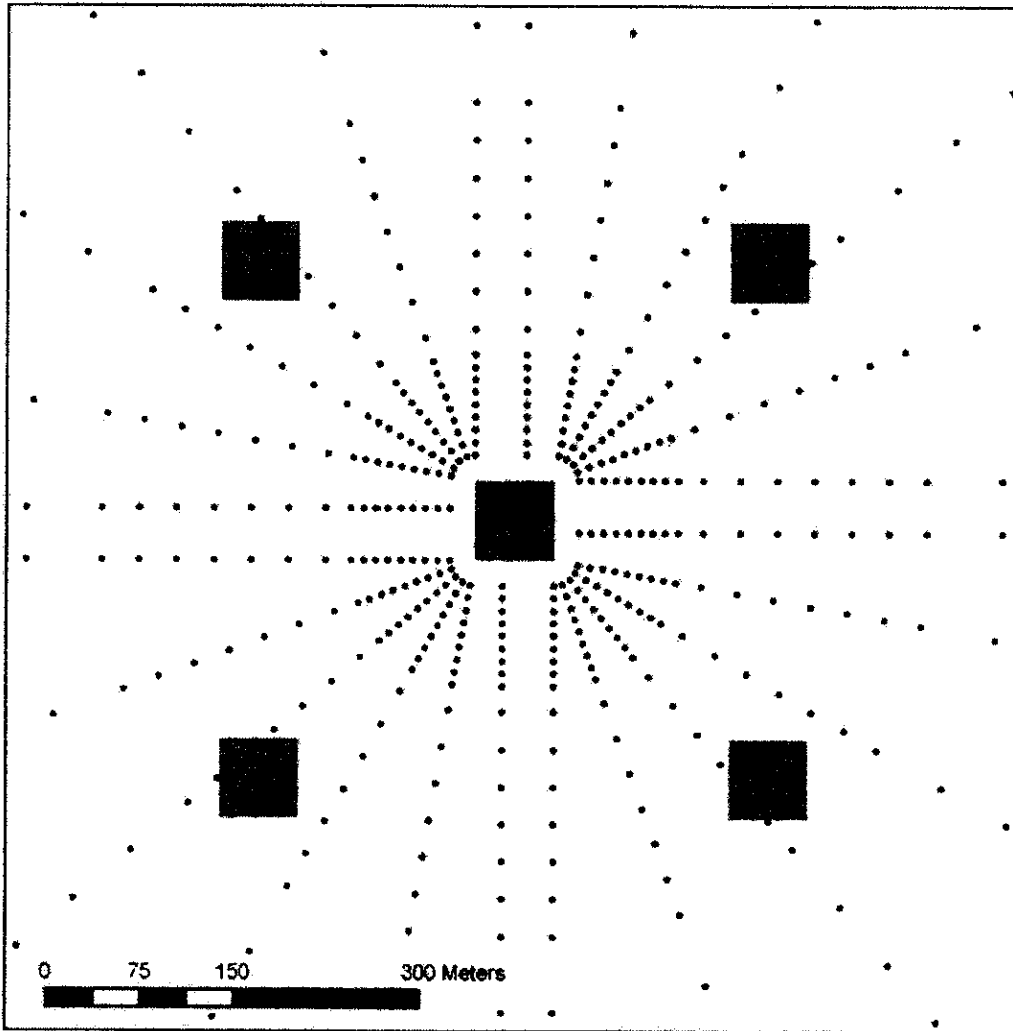
Rick

From: ORR, THOMAS B [AG/1000] [<mailto:thomas.b.orr@monsanto.com>]
Sent: Friday, September 8, 2017 12:36 PM
To: Rick Reiss <rreiss@exponent.com>
Cc: PAI, NARESH [AG/1000] <naresh.pai@monsanto.com>; SALL, ERIK D [AG/1000] <erik.d.sall@monsanto.com>; BEACHUM, COLLIN [AG/1000] <collin.beachum@monsanto.com>
Subject: PERFUM MF1Scenario

Rick,

Could you develop a proposal to evaluate the TX Xtendimax + Powermax Flux data (the same data you are currently modeling to evaluate inversions) using MF1 scenario in PERFUM. The goal of this evaluation is to predict the maximum 1, 4, 8, and 24 hour air concentrations that would be predicted following multiple applications of adjacent fields at the same time. Could we do this for 80 acre fields?

Thanks,
Tom



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September 12, 2017

Dr. Thomas Orr
Monsanto Company
800 North Lindbergh Blvd
St Louis, MO 63167

Subject: Multiple field contribution analysis for dicamba
Exponent Project No. 1707753.000

Dear Dr. Orr:

Thank you for your interest in retaining Exponent, Inc. (Exponent) to provide services related to the above-referenced project. This letter presents our current understanding of the scope of services sought and terms of the engagement.

Exponent proposes to use the multiple field scenario no. 1 algorithms in PERFUM2 to assess the contribution of multiple fields near one another on dicamba air concentrations. This scenario models a main field with four additional fields in each direction at specified distances. We will perform runs for all combinations of distances between fields of 100, 250, and 500 feet, and averaging times of 1, 4, 8, and 24 hours. We will use an 80-acre field for this analysis. We will summarize the concentrations with and without the additional fields. This result will provide an estimate of the additional contribution that nearby fields can have on dicamba air concentrations.

The results will be summarized in a table and will be available in 1.5 weeks. Our cost estimate is \$6,000.

Client understands and acknowledges that Exponent's role is advisory in nature and therefore client represents and warrants that the opinions, analysis, conclusions, results, recommendations and the like ("Work") will be assessed and analyzed by client with respect to its products, processes, or services and that any such decision or action made or undertaken by client, is at the client's own risks in connection therewith.

Exponent's services will be provided in accordance with the Consulting Agreement between Exponent, Inc. and Monsanto Company dated January 13, 2016, as amended.

Based on the information you have provided, we have performed a conflict-of-interest check for the following parties: Monsanto Company.


1707753.000 - 6206

Dr. Thomas Orr
September 12, 2017
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Using this information, Exponent has determined that it does not currently have a conflict that would preclude us from assisting you in this matter. Please inform us as soon as possible if this list of parties is inaccurate or incomplete, and if other parties become involved as this matter proceeds.

This proposal is valid for 30 calendar days. If you would like us to proceed with this work under these terms please let us know. If you have any questions or require additional information, please do not hesitate to contact me at 571-227-7228. We look forward to working with you.

Sincerely,


Richard Reiss, ScD
Group VP & Principal Scientist

Accepted by:

Authorized Signature

Name and Title

Organization

Date