2018 NSM
Crop Protection
June 19th 2017
Crop Protection Breakout

“Our year in retrospect”
Julio Negreli

NSM 2018
Let's start where it all began: The June 2016 NSM...

Summary of Key Takeaways

1. We need to take full advantage of the new organizational structure, leveraging relationships and programs.

2. Although we are facing some price headwinds in the short term, we are living a very exciting moment for crop protection.

3. A critical success factor in the short term is to keep driving discipline and efficiency in the chemistry business with current products.

4. For the medium term, we will drive innovation in current products through priorities aligned to new traits.
Quiz: In one word how would you describe the FY17 for CP?
In one word how would you describe the FY17 for CP?

* Based on an email quiz to all the CP sales field
My word for it... Outstanding !!!

- Record fill volume with over 40M Regs in Glyphosate;
- Strong selective fill volume with 31M Techls reaching 77% of total budget;
- EPA approved XtendiMax® herbicide with VaporGrip® Technology for in-crop use in November, 2016;
- Business plan volume reached 100% in Selectives and 91% in Glyphosate;
- Three consecutive Glyphosate price increases after a long period...
- Glyphosate products approved as a tank-mix partner for XtendiMax™ Herbicide with VaporGrip® Technology.

- GLY: 70M REGs, 87% of the budget
- DIC: 8.2M Techls, 77% of the forecast
- SEL: 42M Techls, 106% of the budget
... those outstanding achievements helped us to build a great year together!

Latest forecast +50% more than budget.

57% price and mix improvements and 43% on operational efficiency
How will we describe FY18...
Agenda

- Recognition
- Product Launches
- Communication Plan
- Break
- Dealer Programs
- Roundup Ready Plus Crop Management Solutions
- Business Plans
- Q&A Brian Adams & Brian Naber
Great Year!!
XtendiMax® with VaporGrip® Technology

100% Of Target
Dean Getting
Travis Frenderson
Matt Roach
Joe Kueser
Dan Anderson
Reed Froseth
Travis Hohn
Dale Stouffer
Denny Lawrence

Julio did a great describing this year. Think of this year like a jig saw puzzle. We just looked at the puzzle completed. It is a great looking year and the CP Team wants to thank you for all of your hard work. Everyone had to do their part to accomplish such a great year.
# Great Year!!

**Warrant® Herbicides and Warrant® Ultra**

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Dan Anderson</td>
<td>Keith Krobath</td>
<td>Tyler Schwertner</td>
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<tr>
<td>Lynn Angell</td>
<td>Ryan Lammers</td>
<td>Gene Sedivy</td>
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<td>Bruce Bishop</td>
<td>Ken Lampkin</td>
<td>Addison Spolyar</td>
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<td>Kevin Brown</td>
<td>Dan Lindgren</td>
<td>Mike Steinlage</td>
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<td>Jammy Turner</td>
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<tr>
<td>Dean Getting</td>
<td>Debbie Morehead</td>
<td>Robert Vaughn</td>
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<td>Miller Greenlee</td>
<td>Kim Nikkel</td>
<td>Shawn Vis</td>
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<td>Brittany Hanson</td>
<td>Skylar Paul</td>
<td>Eric Weaver</td>
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<td>Mike Heins</td>
<td>Stephanie Rush</td>
<td>Kerry Yates</td>
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<tr>
<td>Travis Hohn</td>
<td>Dale Scheffler</td>
<td>Deanna Zwilling</td>
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**Great Year!!**  
*Roundup® Agricultural Herbicide*  
100% of Target

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<thead>
<tr>
<th>Nick Urish</th>
<th>Darryl Loaggains</th>
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<td>Stephanie Rush</td>
<td>Denny Lawrence</td>
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We ask for all of you to help us with pictures and testimonials. The creativity of the pictures have been great. This effort is an extremely important part of our Marketing effort. I think all of you would like to see us be louder in market next year. Farmers are telling us they want to hear about successes. For them to hear about it in your area — We need your help. Many of you have stepped up and helped us out. Lynn Angel kicked it off with a few great shots with a drone. And Miller Greenlee send the pictures on the screen in — I think you have a potential career in photography.
Great Year!!  
XtendiMax® with VaporGrip® Technology

Social Media Contest  WINNERS!!!
Lynn Angel  Brad Davis
Mike Heins  Rob Vaughn
Miller Greenlee  Travis Fenderson
Denny Lawrence  Terry Little
Bruce Bishop  Dale Stouffer
Randall Barwick  Dan Childs
Darryl Loggains  Jammy Turner
Addie Spolyar

We held Social Media Contest to help promote this effort. Congratulations to the winners. Because of you and others that participated we received more than 1.9 MILLION impressions for tweets with the hash tag #XtendiMax or #XtendYourYield across all branded twitter accounts.

Please continue to participate now with the upcoming social media contest that will kick off from the @RRPLUS twitter account beginning June 26. There will more chances to win and promote the system.

Congratulations to all of the people we have recognized on the slides and from the Crop Protection Marketing Team- I want to THANK each and every one of you a GREAT YEAR.

Because of the success and momentum we have ending the 2017 season with, we should all be very excited about the outlook for the 2018 season. When I think of 2018 the first thing I think of is the 2 Launches we will all be a part of.
Agenda

- Recognition
- **Product Launches**
- Communication Plan
- Break
- Dealer Programs
- Roundup Ready Plus Crop Management Solutions
- Business Plans
- Q&A Brian Adams & Brian Naber
Harness® MAX LAUNCH

Launch Summer 17” for fall fill for the use in field corn, popcorn and production seed corn.
- POG 2018
First HPPD containing product in Monsanto portfolio

POSITIONING POINTS:
- PREMIX · Mesotrione + Acetochlor
- EFFECTIVE Residual & excellent Post- Emergence control
- EXCELLENT crop safety
- COMPATIBLE tank mix partner with Roundup® brand glyphosate-only agriculture herbicides
- Greater EFFICACY on pigweed species when used in conjunction with Roundup® brand glyphosate-only agricultural herbicides
How are we better?

Evaluation of Harness MAX + Roundup PowerMAX vs. leading competitor
Common Waterhemp (A) 28 DAT

Monsanto Greenhouse trial(s) 2017
Harness® MAX+ Roundup®

96% Control
# How does Harness® MAX Stack up?

<table>
<thead>
<tr>
<th>Harness® MAX (1.25 g/A)</th>
<th>Leading 3 way Competitor (3.6 psi/A)</th>
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<tbody>
<tr>
<td>Acetochlor - 1.25 pts/A</td>
<td>5 - Metolachlor - 1 pts/A</td>
</tr>
<tr>
<td>Mesotrione - 3.3 flo/A</td>
<td>Mesotrione - 3 flo/A</td>
</tr>
<tr>
<td>PLUS: Roundup PowerMAX® 32 flo/A</td>
<td>Glyphosate acid - 27 flo/A</td>
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**REASONS TO BELIEVE:**

- Harness® MAX herbicide increased active ingredient vs. leading 3 way competitor at labeled rates
- Increased post emergence weed efficacy over leading 3 way competitor when tank mixed with Roundup® brand glyphosate-only agricultural herbicides
- Flexible application
Expanded opportunity on the SAME ACRE

2 Pass Program

**PRE-EMERGENT HERBICIDE**
- 1.5-2.0 pt/A TripleFlex® II Herbicide or
- 1.5-1.75 pt/A Harness® or
- 1.2-1.5 qt/A Harness® Xtra

**POST-EMERGENT HERBICIDE**
- 1.25 gq/A [40 fl oz] Harness® MAX +
- 32 fl oz/A Roundup PowerMAX®
  or Roundup WeatherMAX® +
  Atrazine + 2% V/V AMS

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<table>
<thead>
<tr>
<th>Product</th>
<th>Rate</th>
<th>Pre Application</th>
<th>Post/Harness MAX</th>
<th>Acre Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>TripleFlex® II</td>
<td>2 pts</td>
<td>1.137</td>
<td>1.765</td>
<td>2.902</td>
</tr>
<tr>
<td>Harness® Xtra</td>
<td>1.2 qt</td>
<td>2.08</td>
<td>1.765</td>
<td>3.845</td>
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*11th CORN MAXIMUM HGHT RESTRICTION TO APPLY POST EMERGE

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**Harness® MAX Herbicide Formulation Properties/Storing**

- Capsule Suspension (CS)
- Color – off-white / yellow tinted
  - Compared to Warrant® Herbicide it is a little yellowish
- Slightly more odor than Warrant® Herbicide
- Viscosity – similar to Harness Xtra® Herbicide
- Not Encapsulated
- Aging study – one year
  - Slight clear phase on top
  - No color change noted over time
  - Easy to return to homogeneous condition after mixing the suspend in all test runs
Harness® MAX Herbicide Adjuvant Recommendations

- Adjuvant recommendations, especially POST
- Maximum rate limits
  - PRE – 55 to 95 fl oz/A – Standard rate 75 fl oz/A
  - POST – 40 to 75 fl oz/A – Standard rate 40 fl oz/A
- Total per season
- Tank mix recommendations (especially for large seeded broadleaves)
  - PRE
  - POST
Pre-emergence Corn Safety 6 to 10 DAT
Weed Control 24 to 35 DAT
(10 Monson field trials)

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<thead>
<tr>
<th>Herbicide</th>
<th>Broadleaf</th>
<th>Grasses</th>
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<tbody>
<tr>
<td>Harness® MAX 75 R 2.75 q/A</td>
<td>90%</td>
<td>80%</td>
</tr>
<tr>
<td>Resicore™ (tank mix)</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Atrazine® 3 q/A</td>
<td>60%</td>
<td>70%</td>
</tr>
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Broadleaves: Pigweed, velvetleaf, lambsquarters, morningglories, c. ragweed
Grasses: Foxtail, panicum, crabgrass, barnyardgrass
Harness® MAX Tank Mix Order

- Fill sprayer tank one half full with appropriate carrier
  - Pre-emergence- may use liquid fertilizer or clean water
  - Post-emergence- use clean water only
- Begin agitation and keep agitation going until content of tank are sprayed
- Add AMS
- Add Harness® MAX slowly (continue agitation)
- Add appropriate Adjuvant and UAN if needed and allowed.
- Continue filling tank sprayer until almost full
- If using a labeled tank mixture product, add the required amount at the end
- Fill Sprayer until completely full

Continue to agitate tank throughout the whole process
Reasons to Believe in FY18:

2017 Recap:
- Captured 80% of Corn Acetanilide and Warrant® herbicide budget during fill.
- Currently at 115% of Warrant® Herbicide budget and growing
- Tracking towards 100% Corn Acetanilide goal

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<tr>
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<th>Preliminary Goal</th>
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<tbody>
<tr>
<td>Corn Acetanilide</td>
<td>32.5M</td>
</tr>
<tr>
<td>Warrant® Herbicide</td>
<td>16.3M</td>
</tr>
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How are we going to accomplish 2018?
- New product launch
  - New acre opportunities
  - Anticipated corn acre increase 3% YOY
- Competitive Pricing
  - TripleFlex® II Herbicide & Harness® Herbicide Adjusted
- Roundup Ready® Xtend Crop System paired with Warrant®
Thank you!