Who is ATI?

• First to create starch-based polymers optimized for agriculture
• Research and development began 1994
• Extensive trials since 1997
• Incorporated in 2003, Beaverton OR
• 9 patents awarded; 9 more pending
• Exclusive Cooperative Research and Development Agreements with USDA
• 70 employees, manufacturing in Albany OR, second factory in construction
Since 2003...

- US and Brazil distribution through local Ag Chem or fertilizer dealers.
- Distributors in Korea, New Zealand, Australia, India, Malaysia, Indonesia, and Mexico.
- Distribution agreement with Chemtura for Europe and Middle East.
- Technology licensed to Tongaat Hulett in South Africa.
- Licensing agreements with Scotts Miracle-Gro, Barenbrug, Modugno-Hortibec, Dairyland Seed co.
- Development agreements with various multi-nationals
What is Zeba®?

• Patented starch-based, superabsorbent polymer

• Absorbs up to 500 times its weight in water; forms hydrogel suspended around roots

• Hydrates, then releases water on demand, over and over

• Biodegradable and safe

• Higher quality plants, using less water; makes inputs more efficient
Two types of superabsorbents

**Zeba**
Patented, unique, starch-based
1,000,000 molecular weight

**PAM**
An industrial commodity
Sold under many brands
300,000 molecular weight
Booker Rd North 9” Treated vs Untreated

- June, 2009
Jensen Onion 2009 Results

• Zeba applied at 7 lbs per acre, tilled into planting bed in proximity to onion rows

• Zeba treated onions out yielded untreated by 108 sacks per acre (1062 v. 954)

• Jumbos were 24% higher in the Zeba treated

• At $5.50 per sack Zeba returned over $500 per acre
Up to 6 ton per acre increase

### Onion Yield

<table>
<thead>
<tr>
<th></th>
<th>Zeba</th>
<th>Untreated</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield</td>
<td>$8,257.00</td>
<td>$6,924.80</td>
<td>$1,289.60</td>
</tr>
</tbody>
</table>

### Grade Out

- Untreated: 5.72, 6.88, 8.79, 6.22, 2.94, 4.40, 3.51, 3.34
- 2 lbs Zeba: 6.92, 24.21, 24.20, 27.83, 31.48, 35.32, 36.50, 37.49

*Not statistically significant at P=.05*

### Estimated Return Per Acre

<table>
<thead>
<tr>
<th>Size</th>
<th>Medium</th>
<th>Jumbo</th>
<th>Colossal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>$200/ton</td>
<td>$220/ton</td>
<td>$260/ton</td>
<td></td>
</tr>
<tr>
<td>2 lbs/a Zeba</td>
<td>$1,376.00</td>
<td>$5,326.20</td>
<td>$1,151.80</td>
<td>$7,854.00</td>
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<tr>
<td>4 lbs/a Zeba</td>
<td>$1,758.00</td>
<td>$5,324.00</td>
<td>$912.60</td>
<td>$7,994.60</td>
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<tr>
<td>6 lbs/a Zeba</td>
<td>$1,244.00</td>
<td>$6,144.60</td>
<td>$868.40</td>
<td>$8,257.00</td>
</tr>
<tr>
<td>Untreated</td>
<td>$1,144.00</td>
<td>$5,042.40</td>
<td>$738.40</td>
<td>$6,924.80</td>
</tr>
</tbody>
</table>

### General Trial Information

- **Grower:** Undisclosed
- **Investigator:** Tim Waters, Washington State University
- **Location:** Othello, WA
- **Crop:** Onions
- **Application:** Zeba Farm was applied in-furrow at planting
- **Irrigation:** Drip
- **Harvest Dates:** October 11, 2010
- **Description:** Strip trial in a commercial field

*Market value at time of harvest per ton $7.10/lb cost of Zeba*