Safe and Responsible Use of Technology to Meet Crop Protection Demands in the 21st Century

National Alliance of Independent Crop Consultants Annual Meeting
January 29, 2009 • Memphis, Tennessee
Jay J. Vroom
Greetings from Washington, D.C.

Home of our new President!
“Change We Can Believe In”

- Change = Agriculture
- New Farm Bill
- Pending/Carryover Pesticide Issues
- Pressure for Greater (Financial) Regulation
Nearby Futures Prices

(Brock Associates 1/25)

<table>
<thead>
<tr>
<th></th>
<th>Last Friday</th>
<th>One Year Ago</th>
<th>“Change”</th>
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<tbody>
<tr>
<td>Corn</td>
<td>$3.91</td>
<td>$5.02</td>
<td>-$1.08</td>
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<tr>
<td>Beans</td>
<td>$10.21</td>
<td>$12.77</td>
<td>-$2.57</td>
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<tr>
<td>Wheat</td>
<td>$5.78</td>
<td>$9.26</td>
<td>-$3.48</td>
</tr>
<tr>
<td>Cotton</td>
<td>49¢</td>
<td>71¢</td>
<td>-22¢</td>
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</table>
Role of Crop Consultants

↑ Revenue
↓ Expense
+ Sustainability
2009: Agriculture/Change/Technology

- What can consultants do?
- When?
- Why?
- How?
What Consultants Can Do

• Use pesticides wisely
• Save expense
• Reduce liability
• Manage resistance
What Consultants Can Do

• Anticipate change, be ready for “the next thing”
• Redouble efforts to remind users to follow labeling instructions
• Example- 2008 dry land wheat/fungicides
June 2008 Kansas Wheat Embargoes

- Disparity between labeling instructions and farmers’ usage
- Late wheat development → delayed spraying
- Unanticipated weather → mature wheat crop before label waiting period indicated safe harvest
- No detectable traces of fungicide found, however embargoes put on wheat in several counties
A Dynamic Time for Agriculture: Innovations

- Less Toxic, More Targeted Pesticides
- Reduced Application Rates
- Technological Advancements
  - Hybridization
  - Plant biotechnology
  - Increased tolerance to climatic variability
- Greater Education and Training
- Sprayer Technology
- Good Agricultural Practices
- Active Ingredient Innovations
  - Safeners
  - Oil dispersion
- Packaging Improvements
- Reduced Exposure to Environment and Farm Workers
CPRI Studies

Estimate effects of *not* using pesticides

- **Without Fungicides**
  - 50-90% of U.S. fruit and vegetable crops would rot in the fields

- **Without Herbicides**
  - 7 million workers would be needed to hand-weed fields
  - 20% yield loss would occur
  - Soil erosion would increase by 360 billion pounds
  - Fuel use would increase by 337 million gallons
Herbicides Value to Michigan Farmers

• $436 million in crop losses eliminated
• Weed control costs reduced by $236 million
• Total annual savings = $642 million!!
• Herbicides essential to MI ability to do +1.3 million acres no-till; prevent 4.2 billion pounds/year soil loss
• MI asparagus 17,000 acres; 96% treated with herbicides (50% yield loss w/o)
Fungicides Value to Michigan Farmers

• Production value gained = $293 million
• Cost of fungicides = $40 million, $253 net
• For every $1 spent, $7.25 in benefits
• MI blueberries: 90% treated with fungicides, 60% yield saved, value increase $28 million
Costs to U.S. Farmers

Indexes of Prices Paid by U.S. Farmers

Feed
Seeds
Fertilizer
Agricultural Chemicals
Fuels
Farm machinery

1990-92 = 100

U.S. Top Specialty Crops Export Performance
(in millions, on a fiscal year basis)

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>2006</th>
<th>% Change</th>
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<tbody>
<tr>
<td>Canada</td>
<td>$1584</td>
<td>$3000</td>
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</tr>
<tr>
<td>Japan</td>
<td>$962</td>
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<tr>
<td>Mexico</td>
<td>$258</td>
<td>$660</td>
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<tr>
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<td>$217</td>
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<tr>
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<td>$215</td>
<td>$208</td>
<td>-3</td>
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<td>Italy</td>
<td>$105</td>
<td>$173</td>
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Agriculture’s Purpose

- Food
- Feed
- Fiber
- Now + FUEL
- FAMINE!?
The Future of Agribusiness?
Is it Food OR Fuel?

• Facts show that we can do both

• Our crop technologies allow greater production for both uses

• Consumers and the environment benefit from biofuels
What Consultants Can Do

• Be active in NAICC
• Get your colleagues to join
• Speak out to public officials
• Get involved in government and public education—your are a valuable ambassador!
Thank you!