Drift Reduction Technology Program

- Accelerate the use of application technologies verified to significantly reduce spray drift.

- Encourage manufacturers—equipment and pesticide, to voluntarily participate.

- OPP to credit DRT-labeled products in risk assessment/management decisions—risk management measure.
Desired Change

No reduction

25% reduction

50% reduction

Standard technology, no DRT

Good DRT

Better DRT
Motivation for DRT Program

- **Problem:** Risks of adverse effects
  1 - 10+% applied drifts from target site
  1 billion pounds pesticides applied/yr
  2,500 reported incidents/yr

- Better technologies & science

- Better drift / risk management, efficacy, cost management
Verify Application Technologies

- Test protocol: *Verification of Pesticide Application Spray Drift Reduction Technologies for Row and Field Crops*

- Ground boom and aerial application technologies for row and field crops.
**Droplet Size Spectra from Wind Tunnel Test**

<table>
<thead>
<tr>
<th>Nozzle ID</th>
<th>Pressure (psi)</th>
<th>Wind Speed (mph)</th>
<th>$D_{v0.1}$ (µm ± SD)</th>
<th>$D_{v0.5}$ (µm ± SD)</th>
<th>$D_{v0.9}$ (µm ± SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference</td>
<td>43</td>
<td>120</td>
<td>96.7 ± 0.4</td>
<td>210.7 ± 0.8</td>
<td>335.6 ± 4.4</td>
</tr>
<tr>
<td>Test Nozzle A</td>
<td>40</td>
<td>120</td>
<td>129.8 ± 0.5</td>
<td>275.7 ± 0.8</td>
<td>425.3 ± 3.0</td>
</tr>
<tr>
<td>Test Nozzle B</td>
<td>40</td>
<td>120</td>
<td>127.1 ± 1.5</td>
<td>275.2 ± 3.3</td>
<td>425.2 ± 13.2</td>
</tr>
</tbody>
</table>

**Comparison of Driftable Fractions**

![Comparison of Driftable Fractions Diagram]
What will OPP do with test results?

- Review & assign DRT ratings
  - DRT* - 25%
  - DRT** - 50%
  - DRT*** - 75%
  - DRT**** - 90%

- Post verified DRTs and their ratings on OPP website

- Credit use of DRT in risk assessments when registrants label products with DRTs
Depositions and Buffer Distances for Aquatic Environments
DRT Program Implementation

DRT Program operational

www.epa.gov/pesticides/drt/protocol

Technology co. decides to have equipment tested

Contracts with Testing facility
**DRT Program Implementation**

OPP reviews study, assigns DRT rating

www.epa.gov/DRT

Category DRT**
- Better Nozzle Co., nozzle XPG145

Better Nozzle Co., Nozzle XPG145
Rating: DRT**
DRT Program Implementation

- Pesticide registrant includes use of DRT category on proposed product label
- "Apply with DRT** equipment."
- OPP considers DRT claim in risk assess/mgmt decision registration
- Applicators see DRT claim on label, refer to websites for specific equipment
Incentives/Benefits of DRTs

- Standard method for validation
- More information for decision-making
- More options for applicators to make applications and manage drift
- Opportunity for better pest control, reduce costs and liabilities
- Reduced off-target drift/deposition – greater protection
Next Steps

- Initiate program this August
  - Final test protocol
  - Website
  - Communications
- Tests begin late summer–early fall
- DRT ratings early winter
- Initial new labels spring 2013