

Seed Preparation and Seed Treatment Application

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Pioneer Production Facilities

- **North America**

- 34 Production
- Corn, soybeans, sorghum, wheat, sunflowers, alfalfa, canola

- **ISO Certified**

- ISO Certification since 1993
- Quality Management System
- Deploy state-of-the-art seed conditioning and seed treatment systems



Seed Conditioning

- **Removal of dust and debris from the surface the seed**
 - Continuous process
 - Air systems for removal and containment of dust
 - Specialized equipment
 - Clean seed allows for improved application binding seed treatment to seed

Clean seed = less dust

Clean seed is better for consumers, farmers, our employees, and the environment.

 DUPONT

 PIONEER.

Seed Cleaning and Conditioning

Air Stream Cleaner – Separates seed from foreign material



Seed Sizing – Group seed by size/shape and removes small seed, debris and dust



Gravity Table – Seed floats on stream of air, seed pieces and dust are removed



Seed Treating – Aspiration of seed prior to treating removing dust



Seed Treatment Application and Process

- **Computerized seed treating systems**
 - Seed - scaled measurement of seed
 - Chemical – measured using flow meter & scaled weight
 - Equipment calibration
 - Applicator education and equipment training

- **Seed coating products and polymers**
 - Binds seed treatment products on the seed
 - Improved flow of seed in seed planter
 - Improved seed placement in soil
 - Tested prior to use



Batch Treater

Monitoring

- Representative treated seed samples are submitted for Haubach dust-off testing in collaboration with product registrants.
 - 2011-12 dust-off results for Poncho 1250/Votivo measured significantly below most widely used industry standards.



1gram

Less than a quarter of the weight of a paper clip in each ~50 lb bag of corn.



~50lbs

DUPONT

 PIONEER.

Decades of experience conditioning and cleaning seed

Dedicated systems and processes for the removal and containment of dust prior to seed treatment application

Production facilities are ISO Certified

Deploys state-of-the-art seed treatment equipment and polymer systems to accurately apply and hold treatments on seed

Clean seed = less dust

Clean seed is better for consumers, farmers, our employees, and the environment

Thank You

