

OliverTM

Processing for a more productive planet.

Addressing Post Treatment Processing Issues in the Seed Industry

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Seed Treatment Sector

- One of the fastest growing sectors of Agriculture at 10% to 12% annual growth
- Projected to eclipse \$1.8B in 2016
- With growth, we see some challenges



Treatment Processing Challenges...



✓ *If you don't have these treatment problems, you are in the minority...*

Real Treatment Problems...

- ✓ *Sticking and clumping*
- ✓ *Bridging in process equipment*
- ✓ *Treatment coverage*
- ✓ *Clean-up and disposal*
- ✓ *Customer dissatisfaction*
- ✓ *Treatment performance*
- ✓ *Conveying and storage*
- ✓ *Sticking and clumping*
- ✓ *Flowability in wagons and planters*



Treatment Issues – In the Plant, or maybe Downstream

- *Flowability*
- *Throughput*
- *Transference*
- *Bridging*



All things the lead to loss of productivity and loss of seed quality.

Demonstrate Treatment Challenges...

- ✓ *Build-up on process equipment*
- ✓ *Extensive labor to remove*
- ✓ *Excessive wear and tear*
- ✓ *Loss of product*
- ✓ *Downstream pieces/chunks*



Treatment Issues – In the Field

- *Bridging*
- *Plantability*
- *Seed Cosmetics*
- *Dust Off*



All affecting customer productivity and buying habits.

What does a good solution accomplish?

It needs to:

- ✓ *Enhance Appearance*
- ✓ *Improve Plantability*
- ✓ *Increase Flowability*
- ✓ *Improve Performance*

Existing Solutions

- **Chemical**
 - **Soybean Oil Additives**
 - **Drying Powders**
 - **New Polymers**

Existing Solutions

- ***Mechanical***
 - *Straight to bagging*
 - *Binning with vibration*
 - *Belt Drying*
 - *Box/Stationary Dryers*

 - *Fluidized Bed Dryers.*

Treater, Dryer, ProBox... Ambient Air.

- ✓ *DVX307*
- ✓ *Soybeans*
- ✓ *~16.5 – 17
fl. oz./cmt*
- ✓ *Ambient air*
- ✓ *Bag ready
post dryer*



Treater, Dryer, Bagger... Ambient Air.

- ✓ DVX512
- ✓ CBT200
- ✓ Seed corn
- ✓ Ambient air
- ✓ Bag ready post dryer
- ✓ No transfer to white paper
~1 minute



Demonstrate Treatment Challenges...



- ✓ Treated seed idle in a standard bucket for 20 minutes
- ✓ Treatment loss/transfer

DVX Specifications...



DVX307



DVX410



DVX512



DVX616

Model	DVX 307	DVX 410	DVX 512	DVX 616
Height with Dust Hood	82"	90"	94"	105"
Width with Electrical Panel	66"	60"	70"	110"
Length	117"	144"	174"	260"
Deck Size	36" X 84"	48" X 120"	60" X 144"	72" X 207"
Weight	2,850 lbs	4,000 lbs	5,600 lbs	7,600 lbs
Air/Fan Sections	2	2	3	3
Fan Number	2	4	6	6
CFM Maximum	9,000	18,000	27,000	32,000
Est. Water Removal @130°	150 lbs/hr	332 lbs/hr	500 lbs/hr	800 lbs/hr
Est. Capacity (refers to soybeans) Ambient*	315 lbs/min	600 lbs/min	900 lbs/min	1,440 lbs/min
Est. Power Req. @480 Volt 3 Phase	60 A**	65 A	70 A	70 A