



DMSTTM



Low M μ TechTM



***Tired of Graphite and Talc?
Switch to the Cleaner. Safer. Soy.® Solution.***

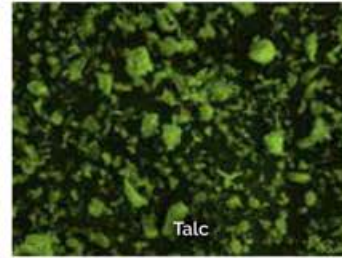
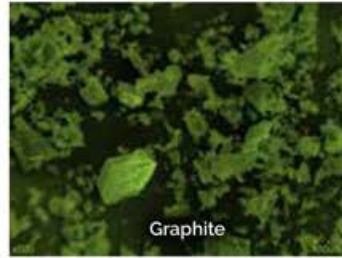
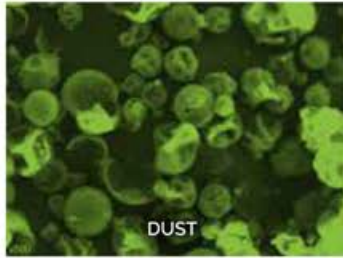


Innovation in an unexpected place: the planter box.

PATENTED BIODEGRADABLE SEED LUBRICANT & STATIC REDUCTION PRODUCT

DUST is a innovative, microplastic-free, patented product made to replace the grimy graphite/talc mix in the planter. **DUST** is a 100 percent renewable soy protein product. Microscopically, it has more round shapes than graphite and talc, which are materials that are milled out of the ground. **DUST**'s round shapes provide lubricity for mechanical parts in meters and relief of static friction while making your seeds flow better through your planter. You will find it clean and safe to use.

DUST is here to provide you an environmentally sound alternative for your agriculture operations that require lower static friction and dry lubrication. It is the perfect seed box treatment for your current planter or drill technology to use with any seed. If you have any questions with how **DUST** works with your planter or seeds, ask us.



DUST doesn't leave you dirty. It is naturally formulated to be less "dusty." Due to this, it doesn't take to the air as willingly as graphite/talc. **DUST** also, does not leave your hands, your face, or your clothing dirty. It wipes off on contact and goes where wanted; on the seed and into the furrow. No more having to clean your sensors from talc/graphite grime.

Since **DUST** is created entirely from US sourced soybeans, it is renewable. Once introduced into the soil, **DUST**'s innovative formula is used by the soil's naturally occurring microbes. Since it is made wholly from soy protein, within 28 days it will disappear from the furrow and provide more green-up and early plant viability.

University and proprietary research over the last 7 years have proven these facts.

KANSAS STATE UNIVERSITY | College of Agriculture

DUST exhibits two unique properties that makes **DUST** an ideal seed lubricant as described by Badua et al (2019).

- Biodegradable in the soil.
- Spherical shape is less abrasive leading to lesser amount of seed coatings being scraped and dispersed

These results indicate that neither of the lubricants had any significantly difference in average singulation over 120 hours of continuous use when no further meter settings were implemented beyond the start of experiment.

Seed Meter Test Brush Measurements							
Deere				Graphite			
Large	Before	After	Wear	Long Brush	Before	After	Wear
End	0.733	0.727	0.006	Straight end	0.891	0.886	0.005
Mid	0.735	0.73	0.005	Mid	N/A	0.893	N/A
End	0.495	0.491	0.004	Curved end	0.892	0.881	0.011
				Short brush	Before	After	
				Small End	0.71	0.708	0.002
				Large End	1.119	1.112	0.007
Deere				DUST			
Large	Before	After	Wear	Long Brush	Before	After	Wear
End	0.729	0.727	0.002	Straight end	0.893	0.886	0.007
Mid	0.73	0.73	0	Mid	0.893	0.893	0
End	0.501	0.491	0.01	Curved end	0.889	0.881	0.008
				Short brush	Before	After	
				Small End	0.707	0.708	-0.001
				Large End	1.119	1.112	0.007
Deere				Fluency Agent			
Large	Before	After	Wear	Long Brush	Before	After	Wear
End	0.729	0.725	0.004	Straight end	0.893	0.880	0.013
Mid	0.73	0.732	-0.001	Mid	0.893	0.889	0.004
End	0.501	0.484	0.017	Curved end	0.889	0.883	0.006
				Short brush	Before	After	
				Small End	0.707	0.703	0.004
				Large End	1.119	1.098	0.021

Table 3. Seed meter test brush measurements (inches) before, after and wear beyond the 120-hour operation

All the different brushes in the seed meters showed either comparable wear or less wear when using **DUST** compared to talc-graphite (Table 3). Additionally, among the three lubricants, the vacuums used for the talc-graphite required cleaning after running three bags of seed otherwise the vacuum will get completely plugged and could impacted singulation.

Talc-graphite was also found visible on row unit components and in the wide area surrounding the meter operation, which was commonly difficult to wipe off the surfaces. This was not the case with **DUST** and fluency agent, as the filters were easily cleaned after the 6-7 hours of operation as a daily maintenance and not out of need. Also, very little **DUST** and fluency agent product was found on the seed meter components and in the immediate vicinity of the row unit.

The results indicated that there was no difference in average singulation from different lubricants on each of the planter row units. Similarly none of the three lubricants had significantly greater average singulation when combining data from both planter row units. However, Deere row unit with **DUST** provided significant greater average singulation compared to talc-graphite on the same row unit. Finally, the visual observation exhibited lowest wear patterns on seed plates when **DUST** was used as the seed lubricant.

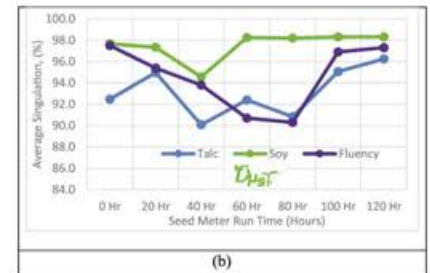
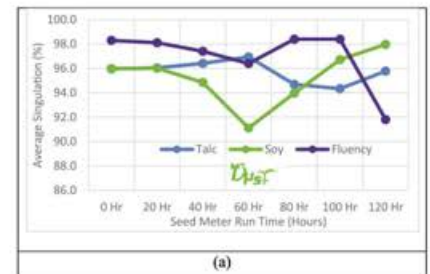


Figure 3. Seed singulation for CNH (a) and Deere (b) meters using different seed lubricants during 120 hours of operations.

PATENTED BIODEGRADABLE SEED LUBRICANT & STATIC REDUCTION PRODUCT



Figure 12. Wear differences on seed singulator of the CNH seed meter when using talc-graphite and DUST™.

Kansas State University research trials, using more than 1 million replications of corn and soybean seeds, have proven meter singulation performance to be as good or better than current technology.

Corn:

Product	Product Average % Singulation	Product Average % Skips	Product Average % Multiples
None	98.75	0.82	0.43
John Deere Talc	98.23	1.20	0.57
Bayer Fluency Agent	98.40	1.20	0.40
Low Mu Dust	98.47	1.05	0.48

Soybeans:

Product	Product Average % Singulation	Product Average % Skips	Product Average % Multiples
None	79.11	9.09	11.82
John Deere Talc	78.90	9.35	11.78
Bayer Fluency Agent	80.30	9.41	10.31
Low Mu Dust	80.27	8.44	11.28



Table 2. Effect of DUST™ Seed Lubricant on Soybean Emergence, Vigor, and Yield Compared to a Traditional Seed Lubricant at the Northwest Agricultural Research Station, 2018.

Treatment Name	Soybean stand (1000 plants/acre)			NDVI			Yield (bu/acre)
	7 DAP	14 DAP	21 DAP	7 DAP	14 DAP	21 DAP	
DUST™	134.3 A	142.5 A	138.5 A	0.15 A	0.24 A	0.28 A	
Graphite	130.8 A	136.5 A	133.8 A	0.16 A	0.25 A	0.26 A	
Untreated control	126.8 A	144.3 A	141.5 A	0.15 A	0.25 A	0.27 A	
LSD(0.10)	14.0	16.1	7.9	0.01	0.01	0.02	

Same letters within a column indicates no statistically significant difference at the 90% confidence level.
NDVI (Normalized Difference Vegetation Index)
DAP (Days After Planting)



Low Mu Tech™ Corn Trial

Figure 2. Plant Spacing Stand Deviation Averaged For Each Lubricant Treatment.

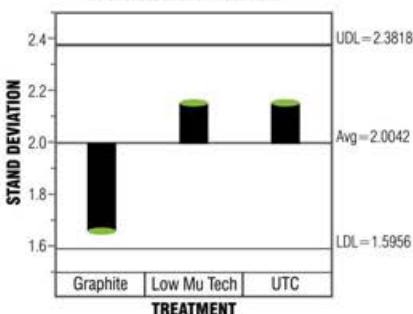


Figure 4. Average Vigor Rating For Each Treatment Recorded 5/18.

Treatment	Vigor 5/18
Graphite	4.5
Low Mu Tech	6.0
UTC	5.0

Low Mu Tech™ Soybean Trial

Figure 2. Plant Spacing Stand Deviation Averaged For Each Lubricant Treatment.

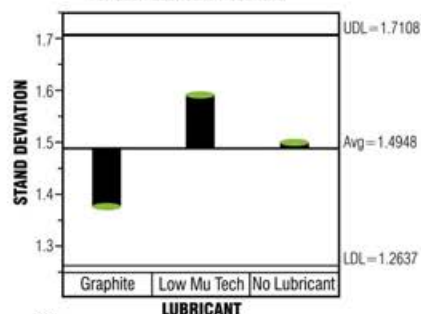


Figure 4. Average Vigor Rating For Each Treatment Recorded Over Time.

Treatment	Vigor 5/30	Vigor 5/30	Vigor 6/14
Graphite	8.3	6.0	7.8
Low Mu Tech	9.0	6.8	7.8
No Lubricant	8.3	6.0	7.3

α = 0.05

Testimonials:

"We've been using this product for the last four years now. We've chosen to use it over graphite. It's cleaner, easier to use. We see a great improvement in emergence and standability. Clean-up is very easy. It's not on your clothes, it's easy to wipe off and clean-up of machinery is very easy. We take a little bit of compressed air, maybe a wire brush, and off it goes."



Daniel Braet, corn and soybeans, Bellevue, Iowa

"Farming is dangerous enough.. Dust™ eliminates one of the risks."



Jeremy Wolf, corn and soybeans, Dixon, Illinois



Want to know more?

Look for more video information on our website.



SCAN ME

Want more research?

Look for additional information on the research at The Ohio State University, the University of Missouri and the University of Tennessee on Facebook and our website at www.lowmutech.com



SCAN ME

To purchase **DUST** go to lowmutech.com or contact your local dealer.

Don't have a local dealer?

Call us and we'll let you know who to contact. Looking to add this product to your line-up? Check with us, we may have an open area for you to cover.

1-844-Get-Dust
(844-438-3878)



1 LB

14 LB

Directions for use:

To calculate the amount of DUST™ needed for planting use the ratio of 1 scoop equals 1 oz of DUST™.

Row Unit Planter
1 Scoop for 1 Bag

Center Fill Planter
1 Scoop for 2 Bags



VIEW NOW

Scan QR code for additional instructions.



Entirely from
US sourced soybeans



Low M_utech™

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