Exapta's 2018 NT Seeding School at Jason Stansbury's

Row	Blades	Tube Guard	Gauge Wheel	Seed Tube	Keeton Pressure	Row Unit Down-Pressure	Closing	2018 % Early planting*	2018 % Late planting**	<< Avg 2018 Stansbury perfect	2017 Stansbury dry	2016 Aufdemberge v wet	3-yr Avg %
#1	New, 3.5 mm	Valion chrome	Std	Good	+Mojo	Max	JD 7200 bracket w/ JD smooth wheels & OEM spring	67	70	69	69	64	67
#2	New, 3.5 mm	Valion chrome	Std	Good	+Mojo	Max	JD 1700 bracket w/ Dawn Curvetines & M.4466	92	89	91	82	70	81
#3	New, 3.5 mm	Valion chrome	Std	Good	+Mojo	Max	JD 7200 bracket w/ Martin Spader wheels & M.4466	79	89	84	93	91	89
#4	New, 3.5 mm	Valion chrome	Std	Good	+Mojo	Max	JD 7200 bracket w/ Schlagels &OEM spring	67	78	73	78	73	75
#5	New, 3.5 mm	Valion chrome	Std	Good	+Mojo	Max	JD 7200 bracket w/ SI Distributing's Finger-Till & med spring (M.4466)	75	85	80	100	80	87
#6	New, 3.5 mm	Valion chrome	Std	Good	+Mojo	Max	JD 7200 bracket & rims w/ Furrow Cruisers installed & OEM spring	74	78	76	80	83	80
#7	New, 3.5 mm	Valion chrome	Std	Good	+Mojo	Max	JD 1700 brkt w/ Exapta Thompson whls + toe-out wedges & med spring (M.4466	72	89	81	98	93	91
#8	New, 3.5 mm	Valion chrome	Std	Good	+Mojo	Low (first n	JD bracket w/ May-Wes Star wheels & M.4466	89	95	92	22	67	61
#9	New, 3.5 mm	Valion chrome	CIH/RID	Good	+Mojo	Low	JD bracket w/ May-Wes Star wheels & M.4466	92	93	93	22	79	65
#10	New, 3.5 mm	JD, worn out	Std	worn	+Mojo	Max	JD bracket w/ May-Wes Star wheels & OEM spring (no pressure)	76	81	79	60	70	69
#11	New, 3.5 mm	Valion Ultra (fu	Std	Good	No Mojo	Max	JD bracket w/ May-Wes Star wheels & M.4466	45	57	51	71	44	55
#12	0.5" off dia., 3mm	JD, worn out	Std-gap	worn	No Mojo	Low	JD bracket w/ May-Wes Star wheels & OEM spring (no pressure)	100	100	100	33	100	78

***see note

This is a demonstration. Some rows may partly match previous wheel tracks, etc, so it's not research-grade results. (We would swap configurations between rows & do replications for that, but Aufdemberge 2016 provides this)

Also, MaxEmerge2 row units are prone to bending; at least one row isn't running true (same goes for gauge-whl arms, etc). We didn't do anything with parallel arm bushings either.

Note that getting a uniform stand is only half the battle. The sidewalls must be broken up enough that roots can grow easily, and that isn't shown in this demonstration (would need to take it to yield)

We saw major differences in root growth in the 2016 Seeding School demo (planted very wet); some closing wheels caused severe tomahawk rooting despite rains a week after planting.

In 2017, slightly damp but mellow at planting, and no rain afterwards for 3 wks, we again saw severe tomahawk rooting, especially with smooth OEM closing, Schlagels, Furrow Cruisers

This year, with all the rain after planting, the tomahawk rooting doesn't show up however. (Mellowness at planting, and relatively good soil also helped prevent it)

Damp on surface when planting, but certainly not muddy. Good moisture. Passes planted on July 19 had 0.15" rain a day later, and 2.1" on July 28 -30. Second plot planted on July 31 (damp), had 0.25" rain 3 days later.

Row #12 performed better than #8 & 9 because soil was damp & very sharp/thin blades cut well; May-Wes wheels on OEM spring may have done some seed-to-soil contact.

***Plants in a given distance that had reached V5 (5th leaf within 1.5" of length of 4th leaf) on 6 Aug (19 July planting)**

****Plants that had emerged on 6 Aug. (spike to v1) (31 July planting) (visible without stooping over or scratching straw away)**

I do the counts semi-blind. I can remember #1 is OEM, but otherwise I've forgotten what is what by the time I'm doing counts (& I try not to look at the sheet). Not much subjectivity when measuring leaf lengths anyway.

*****#8, 9, 12 -- we know shallow-planted corn will yield substantially less, even if the stand % is acceptable (which usually it isn't)**

*****2016 & 2018 trials were planted very wet, so most of the shallow-planted seeds grew and were ahead of the deeper-planted**

Corn Belt studies show corn yields 10 - 45% less when planted at 0.5 - 1" vs 1.5 - 2". Paul Jasa's studies show that 3" is sometimes superior to 2" (depends on soil warmth, planter setup, etc)

Add'l notes: We've done >15 Seeding Schools, including in S. Dakota, Oklahoma, various places in KS. OEM closing wheels are almost always the worst. Martin Spaders have beat Thompson wheels once or twice.

If you run Martin Spaders, be very careful about them not digging seeds up (T-whls with too much toe-out can do this also). Max pressure on Keetons (Mojos) helps avoid having seeds pulled out by aggressive closing wh

We did Curvetines without Keetons once (Dawn considers Keetons optional with Curvetines), and it was disastrously bad stand, while the Curvetines *with* Keetons performed okay

2018 is the first time I've ever seen Curvetines outperform T-whls

When planted at the normal depth (2"; Max downpressure), notice how disastrous it was to run only Keetons without Mojos (#11). These were brand-new Quick Attach Keetons in 2018.

Worn out guards by themselves (#10) cost ~15% of expected stand (May-Wes wheels with everything else in good condition and set properly would results in ~85% stand

The avg might not be terrible on #12, but look how disastrous it was in 2017 (no rain after planting). And it's still 13% below the best. And the yield will be much worse thanstand counts indicate (shallowness)

Schlagel closing wheels are nearly as bad as OEM. In previous years, they have also been consistently bad. Tomahawk rooting behind them is usually nearly as bad as OEM.