



ADVANCED AG SYSTEMS'

Crop Soil News

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**"It is the crops
that feed the
cows that make
the milk
which creates
the money."**

**Advanced Ag Systems
Research, Education, Consulting**

Equipment for Today's Crops

With the increase in interest in winter forages, BMR sorghums, and minimum/no till of legumes in winter forage stubble, the realization is starting to sink in with many farmers that they are planting modern crops with antique management and equipment. A major problem for dairy/livestock farmers achieving high yields of very high quality forage from these crops is that they are 2 – 3 generations since they last seriously grew winter grains and almost none have grown sorghum. Both the knowledge and equipment is outdated. You wouldn't drag grandpa's old corn planter out for modern corn production, yet antique drills, some with wooden wheels are still considered acceptable. Others think it is ok to chuck it out with a spinner spreader and it will do fine. Try that with \$200/bag corn. For anyone growing these new (old) crops, it is to their advantage to plant with a modern press wheel drill.

Every corn planter has a packing wheel behind the planter unit because with corn we know it gives superior results. For drilled fields, using a roller in both minimum and no till situations gives very haphazard results – poor seed soil contact- due to natural variations in field surface. A press wheel drill follows the variability with uniform down pressure – just like we know it works for corn. It leaves loose soil between the rows where the weeds are trying to grow. A drill with press wheels, featured in the January issue of this newsletter, was critical to capturing the superior alfalfa stands planted into triticale stubble after flag leaf harvest. <http://advancedagsys.com/january-2014-better-new-seedings/>. We harvested flag leaf triticale followed by a press wheel drill (minimum or no till) which cut in ¼ inch, accurately deposited the seed in the slit, and the

This is the June issue, you just think it is July. We have been going so fast, we have approached the speed of light where time slows down - so it is still June!



More farms are realizing modern drills can give them the same advantages of stand uniformity, seed placement, and residue management that modern corn planters had given.



Press wheels are standard on corn planters, and should be on drills for the same benefits.

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press wheel gave optimum seed/soil contact. The resulting alfalfa stand was better than spring plow, disk, roll, and planting – and did not need stone picking.

The most critical issue we found with BMR sorghum production is the ability to accurately hit very low seeding rates for optimum yield. Modern corn planters with sorghum units will do an excellent job of uniformly indexing and spacing the seed. The trend is to very narrow rows to maximize sunlight interception sooner and, more importantly, to protect the ground from both raindrop impact sealing the surface, and keep weeds from taking advantage of wide rows. Most grain drills were designed to plant 100 lbs. of small grain /acre. Trying to plant 6 – 8 lbs. /A of sorghum is nearly impossible as we and others found out using our old drills. Too much seed/acre and the crop falls down, just like with corn. Modern gear adjusting drills can very accurately plant to these low seeding rates.

The other factor is that, so far, about 1 inch appears to be the optimum planting depth for BMR sorghum. Older planters with no depth control put seed at any depth. One of the first settings, even with antique hand stab corn planters, was one for depth control. Modern drills with depth control wheels or bands enable the majority of the seed to be at the set depth. When we switched from a 1960's press wheel drill to a modern grain drill with depth control and press wheels, the stands uniformity and emergence of the sorghum were far superior.

Depth can make the difference between a crop and complete loss for most winter forage. We suggest planting triticale 1.25 inches deep. Some farms ignored this and got away with it – until they didn't. This was especially obvious in the winter of 2012-13 where triticale planted shallow (<1 inch) was lost to winter kill while neighbor farms that hadn't forgotten how to grow winter grains, drilled deep enough and did not have that problem. Triticale is winter hardy if planted correctly.

We know the modern corn planter has done wonders for the stand consistency, and uniformity of emergence of corn. We need to use some of that same technology in our drills. Eventually seed indexing drills will become more commonplace, but in the meantime farmers should consider moving from their 1950's drill to something newer if they haven't already. With the movement to one pass deep zone tillage, or the use of aeration tillage with a rolling basket, drills are now planting into more residue fields. This is the same change that has already happened in corn planting. A good minimum till drill will work and hold up in a range of conditions, while a good no-till drill will give the farm even more options – but they cost more to purchase.



Uniformity of seed drop is critical to corn and to other crops such as BMR sorghum or winter forage



Modern drills are need for farms utilizing solid stand crops in winter triticale or BMR sorghum,

Sincerely,

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Hand
to Better
Agriculture**

