METER TESTING

MeterMax Ultra TEST STAND

Testing your meter can find the small things that could cost you big. We will do a pretest with your meter to see how it performs.

Then we will take it apart and completely clean and inspect all the components and replace any worn or broken parts, and then run another test on it to verify its performance .

Bring all your seed discs along and we will also inspect them. They will be cleaned and given a fresh coat of graphite.

Stop by or give us a call if you have any questions or would like a demonstration. We would be happy to show you how our MeterMax Ultra test stand works.

METER TESTING ALL MAKES & MODELS!

PLANTER SEED METER TESTING $45/ROW

SAVE $10/ROW

BY SCHEDULING BEFORE 2/15/16!

THAT'S ONLY $35/ROW!

Mitchell Equipment

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PLANTER PERFORMANCE

ONE CHANCE TO GET IT RIGHT!

A field of young corn plants can be a beautiful sight from the window of a pickup truck moving rapidly down a country road. However, a closer inspection sometimes reveals that the stand is not as uniform as it appeared from the road. There may be tall corn and short corn, long gaps within the row, and groups of crowded plants. Indeed, stand establishment variability is com-posed of both emergence variability and within-row plant spacing variability.

Giving each plant the best chance to reach it's full yield potential.

A Thompson Machine gun will fire at a rate of 18 bullets a second. That is the same speed that your corn planter puts seed in the ground. In today's high speed planting environment the planter is even faster.

If anything is off on your planter, even a fraction, it may lead to skips, doubles, and in some cases triples. Inconsistent depth and poor seed-to-soil contact will result in yield losses.

Kevin Kimberly a Crop Advisor and farmer from Maxwell, IA., who travels 50,000 miles every year consulting with farmers, says that the biggest problems are with skips, doubles and poor planter performance. "It's not the newest planter that always produces the best results. You should Start by making sure your system is operating properly by replacing worn parts in your meters and drive systems." At the end of the day, an uneven stand establishment can reduce your yield potential from the first day the seed is put in the ground. According to a Purdue University Study (AGRY-91-01) the inconsistency in row spacing issue and uneven emergence can cause up to 3-15 bushels per acre loss in yield.

ELIMINATING THE VARIABLES

The Early Riser Planter in action.

Variability among plant-to-plant spacing within the row usually consists of some combination of crowded plants (doubles, triples, or worse) and long gaps. While it is true that plants next to a gap may compensate and produce larger ears, they generally cannot compensate enough for the smaller ears of the crowded plants that are competing for sunlight, water, and nutrients. Another variable that will directly influence a good stand is seed-to-soil contact. The resulting uneven germination caused by this is one of the leading causes of uneven stands. One of the major advantages of the Case Early Riser is the firming point and closing disc system that ensures good consistent germination, while also maintaining consistent depth.

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Precision Planting

SINGULATION VS. SPACING

Something that has always been difficult for me to wrap my mind around has been the relationship of Singulation and Spacing. We could dive into Standard deviation and Coefficient of Variation but that is a discussion for another day.

Consistent depth from the Early Riser

To put it simply, Singulation and uniform spacing are two totally different issues. Singulation refers to the way the meter picks up one seed and drops it down the seed tube. Basically everything in the drive system and the meter have a direct effect on your singulation. Singulation will affect spacing if it is bad, but you could have perfect singulation and still have poor spacing.

Another way to look at it is singulation is everything occurring before the seed drops out of the meter, and spacing refers to the actual distance between seeds that can be affected by many other things—such as worn seed tubes that are rough and catch the seed, the planter not being level causing the seed to strike the tube and bounce, row unit bounce caused by not enough down-pressure or too high of speeds, making the seed ricochet, come out late, and cause a skip and a double. The geometry of the seed tube is designed to allow the seed to fall through without striking the sides but when any one of these variables occur it will cause poor spacing.

"SINGULATION AND SPACING ARE TWO TOTALLY DIFFERENT ISSUES."

SKIPS, DOUBLES. DO THEY MATTER?

YES! They do matter, with Skips being the biggest potential yield robber. Doubles caused by a misplaced seed will still produce, but the full potential of both plants are limited because of the competition for nutrients and water.

A variation of 2 inches plus or minus from the targeted spacing is the standard threshold for when yield loss begins to occur. There is a lot of research and statistics on how much you lose per inch of deviation after this. Some say it is as high as 2.5 bushels for every inch, and other studies show the yield loss will only start after the 2 inch deviation from the target. From the Neilson 2001 study: at typical seeding rates and assuming random occurrence of nonemergers, a deviation of 2 inches in plant to plant seed spacing can occur even in perfect conditions.

Also 60% of the fields he surveyed would have had a 5-7.5 bushel per acre increase in yield by decreasing the spacing deviation to the 2 inch plus or minus minimum.

There are many variables that we cannot control, with weather being the biggest one of them all. We need to make a diligent effort to eliminate the mechanical variables that are within our control, to give us the best chance at a profitable yield.

Planting Outcome	Planting Spacing		
Perfect Spacing			
% yield*	100	100	100
Skip			
% yield*	110		110
Doulbe			
% yield*	100	70 70	100

Planting depth is no place to get creative if you want to achieve uniform stands and optimize corn yields. Paul Jasa, University of Nebraska Extension ag engineer, believes uniformity should be every grower's goal."The effect is not going to be the same every year, but if those early emerging corn plants are growing fast, as often is the case, then the late-emerging plants will never catch up."

Front Row shows plants planted at depths of 1 to 3" with second row at a consistent depth and spacing, while the third was same depth but varying spacing.

WHAT IS IT COSTING ME?

At the end of the day it comes down to this: Is this costing me money?

If you own a 24 row planter and you cover 4500 acres per year, each row is planting 187.5 acres. If you have one row that is singulating poorly and giving you a spacing deviation of + or – 4 inches or 5 bushels per acre loss, this is costing you $3280 on that one row.

If you have more than one row not working properly, it doesn't take long to add up to a lot of dollars. In the tough farm economy we are in right now, we need to decrease the chances we take on the things we can control to help ourselves be profitable.

On a larger scale, seed spacing that is off + or - 4 inches from the target spacing, across the machine. This will cost approximately $78,750 dollars in lost income. That planter pass is the most important pass of the season. We only get one chance to start off on a good note. There are a lot of things throughout the growing season we can't control, but we need to do our best to make this pass the best it can be.