



The 2011 crop season got a really late start but it is winding down at a rapid pace and it is already time to start thinking about prepay for 2012. It was obvious that we were faced with many challenges on our crops, but I did not think about the uniqueness of this year's weather until I attended the Ohio No-Till Field Day. The speaker that caught my attention because of his thoroughness and thought process was Bob Nielson – Purdue University Agronomist. Bob focused on how the weather affected the corn this year based on the early wet conditions, late planting date, excessive heat, lack of rainfall, and the numerous storms that produced damaging winds that flattened the corn. He said through all of these weather events he is always asked, "When are we going to have a normal growing season?" This statement led up to his definition of a normal growing season, - "A normal cropping season is one that involves an unpredictable number of unpredictable extreme weather events, each occurring unpredictably, with unpredictable severity." Based on this definition he recommended that when you are selecting your corn hybrids you need to look at yield, but more importantly you need to look at the agronomics of the corn hybrids when making your selections. Upon hearing that statement one may ask themselves what agronomics are important in the corn that we grow and want to feed to our livestock. The way it seems is when we gain on fiber digestibility or starch degradability we are going to lose too much somewhere else (yield, standability, stress tolerance). However, with Masters Choice's in house breeding program they are focusing on the agronomics that give us high quality feeds and solid agronomics through the growing season. Each year about this time, first time customers will call and state they cannot believe what they are seeing with these hybrids. Comments like: 1.) They come out of the ground quicker, 2.) They are greener and they tolerate stress very well, 3.) My Masters Choice corn has no traits and it has yielded at the top with the competitors traited corn, and 4.) It feeds great right after ensiling and the cows love it. Comments like these affirm that Masters Choice has a unique breeding program that is focused on our livestock. Although I make this sound like the "Super Corn" I do receive calls on certain concerns. After looking into these concerns, most time it relates back to a management practice that needs to be adjusted or Mother Nature threw us a curve ball that we were not able to hit. In order to get a grower the right agronomics, Master's Choice has divided their hybrids into groups based on the agronomic challenges they are going to face. They have grouped the hybrids into three groups. The first group has the top nutrition hybrids in it. These hybrids produce



the best feed quality overall, but need soils that are in rotation, average over 3% on organic matter, and have a calcium saturation over 65%. The second group of hybrids are the hybrids that I place on the majority of the farms. This group can handle a continuous corn rotation, lower organic matter, but still need good soil nutrients. Farms using manure have really done well with this group. The last group is the rough and tough hybrids that can be planted anywhere. They handle continuous corn, low organic matter, and low soil nutrients. Silage and grain nutrition is the best at group 1 and lowest at group 3. Even though I say the lowest, Masters Choice Hybrids in the group 3 still feed better than industry average when it comes to grain



starch availability. At this point we need to ask ourselves, "Are our current hybrids going to give us the performance we need to achieve in 2012?" Currently, corn prices are on the rise and livestock prices have risen, but probably not to a level that is respectable to the price of the feeds we are feeding them. 2009, 2010, and 2011 have all been years where efficiency has become extremely important, but 2012 looks like we are going to have to work harder at getting more out of what we are putting into our livestock.

The Difference Between Vitreous Starch Corn and Floury Starch Corn

With corn futures over \$7.00 per bushel, there has been a lot of articles printed on how this is going to affect the livestock industry. The biggest concern everyone has in the articles is if we can afford to feed this corn to our livestock or is there going to be a big cut back. While reading the articles I was trying to figure out a way to show an economic comparison between corn with the floury starch compared to corn with vitreous starch. The first thing I was able to do was create a spreadsheet to compare 2 corn silages with different starch availabilities and then convert the extra starch availability into bushels of dry grain savings. The end results showed a reasonable corn savings per month per 100 dairy cows.

Upon completion of this comparison I moved onto showing the economic comparison feeding dry grain from different corn types to swine and steers. This also provided reasonable corn savings. With this information in hand, I wanted to get some certification I was on the right track. While searching for supporting information I found a presentation on starch availability by Patrick Hoffman at the University of Wisconsin. Mr. Hoffman had details showing as the vitreousness of corn increases, the prolamin protein level increases. The result of this increase decreased the total tract starch degradability and lowered the expected milk production of a dairy animal. I was able to get in contact with Mr. Hoffman in order to search for more supporting



details. He commented that the thought process was correct, but I was trying to compare an in vitro (obtained in a lab) number to an in vivo (obtained inside a living organism) number. Even though Mr. Hoffman thought it was not where it needed to be, I can tell you from first hand experience there is a major difference in the way that corn feeds. Moreover, the two below examples will give you a real time example of in vivo versus in vitro when it comes to testing a product.



M.E.A.T Hybrids – St. Joseph, IL Test Plot – August 2011

In Vitro – Obtained In Lab

One of the sources I used for information was a Byrons counterpart in Wisconsin. He was able to send me a lab sample showing the difference between a Masters Choice hybrid and a vitreous corn.

Sample	Moisture - %	Starch - % D.M.	2 Hour Starch Digestibility—% Starch	7 Hour Starch Digestibility—% Starch	Pounds Of Available Starch Per 56 pounds—2 hour Starch Digestibility	Pounds Of Available Starch Per 56 pounds—7 hour Starch Digestibility
MC 527	12.7	74.4	66.2	74.8	24.08	27.21
Viteous Corn	11.8	72.6	62.7	68.3	22.48	24.49

In Vivo – Obtained From Living Organism

Rick Tamm is the Byron Seeds Northwest Territory Manager, and I was able to meet him in August. Rick worked with Agri King as a dairy nutritionist prior to working with Byron Seeds. Rick stated at the meeting he went to a dairy to make a delivery and the farmer proceeded to tell him how he tested the Master Choice corn to see if there was truly a difference compared to other hybrids. The farmer told him that when he bagged his high moisture corn he alternated corn hybrids in the bag. He would put several loads of one type in then several loads of the other type. When he began feeding the bag of corn, he was able to tell there was a difference when the cows would increase 6.25 lbs of milk per cow when he fed the Masters Choice corn.

With all of the above presented information, you should realize that there is a difference in the corn we feed to our livestock. The difference is something that is now just truly coming into the spotlight because of the escalated value of corn grain. I am not going to be the one to tell you that you are going to get an extra 5 pounds of milk per cow or increase your daily gain on your other livestock by ½ pound a day. The most important thing I can tell you is that if you do your own on farm trial and your nutritionist understands how to feed Masters Choice you will see the results on your farm.

Looking Back

Benefits Of A High Forage Ration – From Larry Hawkins, Northwest Territory Manager - 2008

There are many benefits of a high forage/concentrate diet, but with the crazy volatility of input prices, the cost benefit really jumps to the top. The main savings accomplished with a high F/C diet are with crude protein and phosphorus. Phosphorus after being relatively stable for 20 years has almost tripled in price. Protein, likewise, is at historic highs.

Dr. Jerry Cherney at Cornell University recently calculated that for every pound increase in forage in a diet, you would purchase 13 pounds less nitrogen and 1.5 pounds less phosphorus in a year. What does this mean to you? I had a grass haylage/corn silage ration shown to me last year that was at 49% forage and 51% concentrates. The local nutritionist was not testing for NDFd and had no idea how much energy was in the grass haylage. Therefore, by using book value NEL's (wrongly derived from alfalfa) the aforementioned ration with high grain and several unneeded pounds of low-protein, space-wasting byproducts were being fed. Just by updating the forage test and correcting the NEL's of the haylage (the NDFd value is needed) and removing the byproducts, we quickly added 6 pounds of forage which took the ratio to 60% forage. The cows loved it! We continued to take the ration higher in forage. By using Cherney's calculations, you can take today's prices and derive the savings.



The purchased nitrogen (N) in a ration comes mainly from sources like soybean meal. Converting protein to N and using a price of \$500.00/ton for 48% SBM, gives us a yearly savings of \$108.33 (or \$.297/day) for each pound of forage added to your ration. In the above case, with 6 pounds of

added forage the total comes to \$1.78/cow/day. The purchased phosphorus (P) comes from sources like di- or mono-calcium phosphate and monosodium phosphate which also are at record high. The week, 21% P mono-calcium phosphate was over \$1100.00/ton or \$0.393 for each 1.5 pounds of phosphorus. The reduces the purchased phosphorus by \$23.57 per cow per year in our above example for a total feed bill reduction of nearly \$675.00 per cow! These numbers are more than \$0.40 more per cow per day than they were just last January.

How Is Masters Choice Helping You Raise The Bar On Efficiency And Performance

Article written by Masters Choice Staff



Masters Choice currently has over 530 dealers nationwide and is rapidly expanding to the western dairy and livestock markets. Their flagship MPG (Milk Production Genetics) hybrids are based on increased 5 & 6 carbon sugars that increase digestibility, fermentation rates, and stalk density. The MPG hybrids have performed extremely well in quality and yield competitions across the country, including the World Forage Super Bowl.

As the acclaimed Dairy Nutritionist Dr. Charlie Sniffen says, "The interesting thing about the Masters Choice MPG hybrids is that they focus on high sugar levels and healthier plants. This has resulted in the MPG hybrids consistently appearing in the top tier of fiber digestibility across the board. This translates into improved intake, microbial growth, fermentation balance in the rumen, and feed efficiency."

The current excitement surrounding Masters Choice has been their M.E.A.T. program (Maximum Energy Absorption Technology), which is a culmination of years of research into starch availability, Prolamin protein levels, and kernel texture. The result has been hybrids with superior grain feeding characteristics that have shown up to a 15% or more improvement across the country. The M.E.A.T. hybrids are designed for beef, poultry, and swine operations that want to get more energy per bushel thereby reducing their feed costs and improving profitability.

Masters Choice has met with top experts in the country regarding grain chemistry and digestibility correlation. There are multiple projects examining these advantages with University and private laboratories across the country. Masters Choice is leading the industry to produce the most effective corn grain feedability.

Hybrid Placement In Western Ohio

In the above article I talked about Masters Choice hybrid grouping. In order to help evaluate the hybrids for hybrids placed on your farm I have refined the hybrid grouping to only the ones that have performed at top notch levels in Western Ohio.

Group 1 – Highest plant sugars, best quality forage and grain, and requires the best soils.

- ◆ MC 515 - 98 Days - **MEAT & MPG** - Conventional, GT
- ◆ MC 550 - 110 Days - **MPG** - Conventional, GT
- ◆ MC 615 - 115 Days - **MPG** - Conventional

Group 2 – High plant sugars, great quality forage and grain, great yields, requires above average soils.

- ◆ MC 4430 - 94 Days - **Organic**
- ◆ MC 490 - 94 Days - **MPG** - Conventional, RR, VT3
- ◆ MC 5250 - 102 Days - **MEAT** - Conventional, Organic
- ◆ MC 527 - 105 Days - **MEAT** - Conventional, GT, 3000GT
- ◆ MC 530 - 105 Days - **MPG & MEAT** - Conventional, GT
- ◆ MC 535 - 107 Days - **MEAT & MPG** - Conventional, Organic, GT
- ◆ MC 583 - 111 Days - Conventional, GT, LL, 3000GT, Viptera
- ◆ MC 573 - 111 Days - **MEAT** - Conventional, RR, VT3
- ◆ MC 628 - 115 Days - Conventional, GT, 3000GT
- ◆ MC 6580 - 115 Days - Conventional, GT
- ◆ MC 590 - 116 Days - **MEAT & MPG** - Conventional, RR, VT3

Group 3 – Good plant sugars, feed values higher than industry averages, tolerates poor soil quality

- ◆ MC 5320 - 103 Days - Conventional, LL, Quad, Viptera
- ◆ MC 534 - 107 Days - Conventional
- ◆ MCT 6053 - 110 Days - 3000GT, Viptera
- ◆ MC 630 - 115 Days - Conventional
- ◆ MC 6750 - 117 Days - Conventional, GT, 3000GT



Prepay Schedule for 2011- 2012

No. of Bags	September	October	November	December	January
1-25	8%	8%	6%	5%	4%
26-50	9%	9%	7%	6%	5%
51-100+	10%	10%	8%	7%	6%

*Bag numbers reflect 80K Corn, 50 pounds alfalfa, and 50 pounds of premium orchard grass, fescue, and timothy.

*100% Replant On Masters Choice Corn Treated With Poncho 250 & 50% Replant On Alfalfa and Premium Grasses

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More Reasons To Choose Improved Grasses For Your Farm

1. I receive comments on how our late heading grasses do actually head out two weeks later than the standard grasses purchased at the local elevator.
2. Comments are given on how the grasses have improved cow health, butterfat productions, and drymatter yields.
3. Grass can be a direct substitute for corn grain or corn silage in the ration. At \$7.00 corn you can pay up to \$250 per ton for grass. Let the cows tell you if the grass is a good investment.
4. Premium grasses qualify as a prepay item.
5. No matter the amount of grass you need it will be delivered to you in time for planting.



Do Not Forget About Your Alfalfa Needs

If you have a marginal field of alfalfa that you have been debating if you should keep it in production or plant it in corn, now would be the most economical time to make the decision to replace that field next year. The alfalfas in our lineup have a proven agronomic performance along with a great feeding ability. The most important advantage in planting King Fisher Alfalfas is the fact that we can provide you with a mix of our best alfalfas. The only logical explanation of why our mixes out perform our alfalfas that are planted straight is **BIODIVERSITY**.

Check Out Our Website

Our website is available online and it has been coming along as what seems a snail's pace. As a start we have information about feeding high forage rations and all of our previous newsletters. This will give you a change to refresh on some of the information that you have received over the last several years. The website is available at www.bfssales.com. Also, if you would like to receive this newsletter electronically please email us at tabrunswick@watchtv.net.