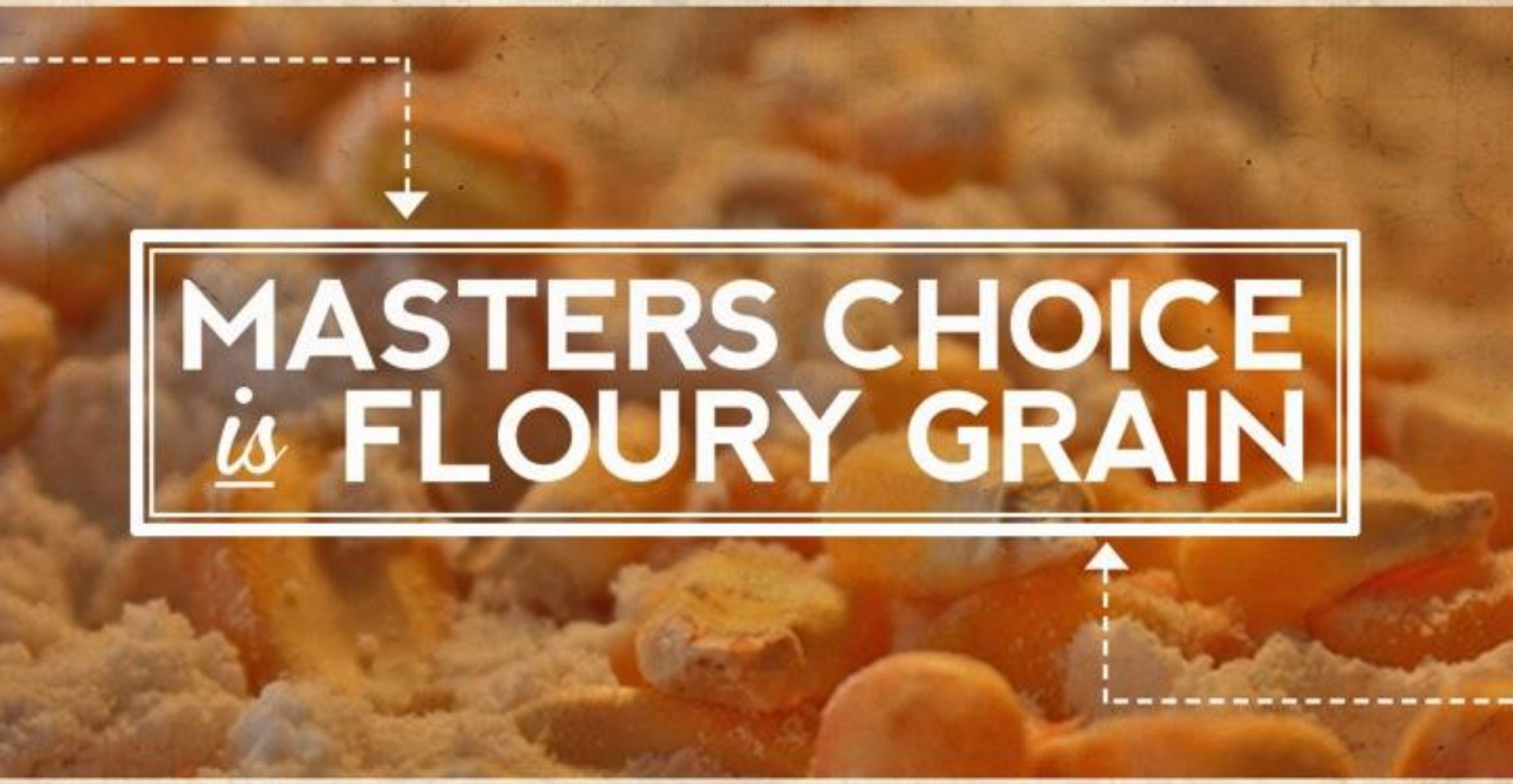
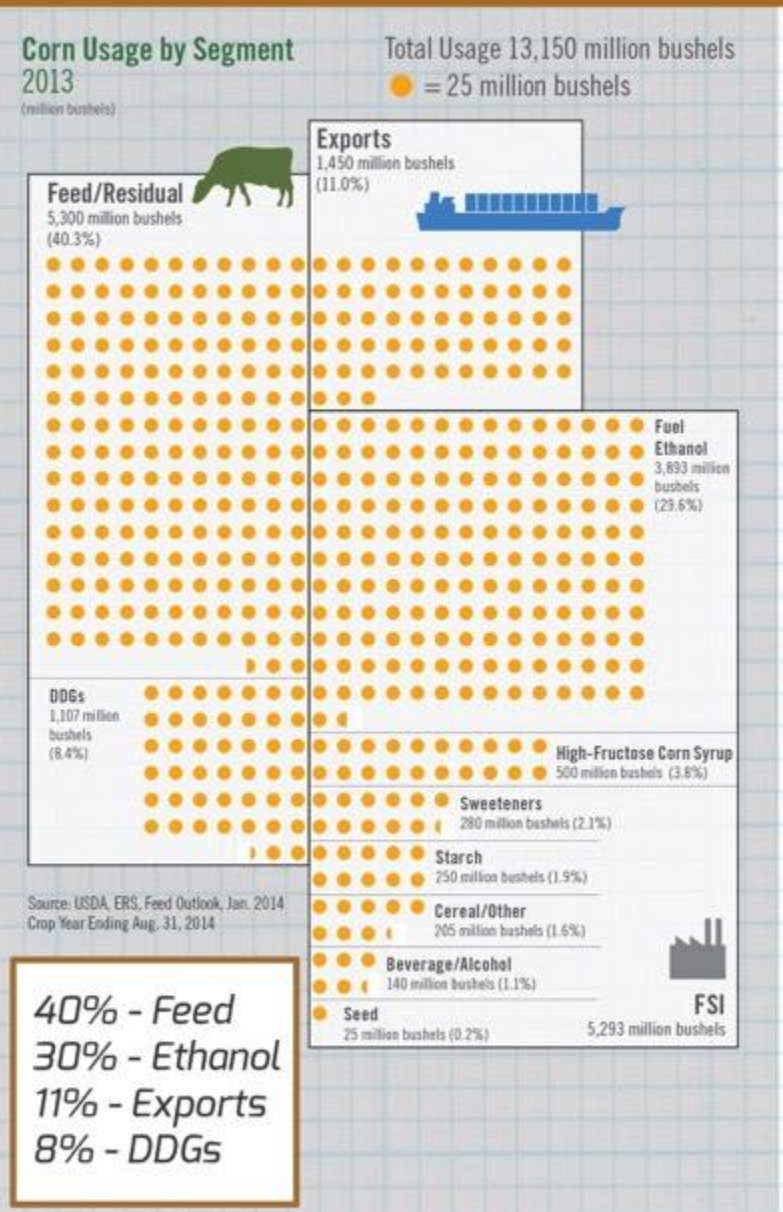

MASTERS CHOICE
is FLOURY GRAIN

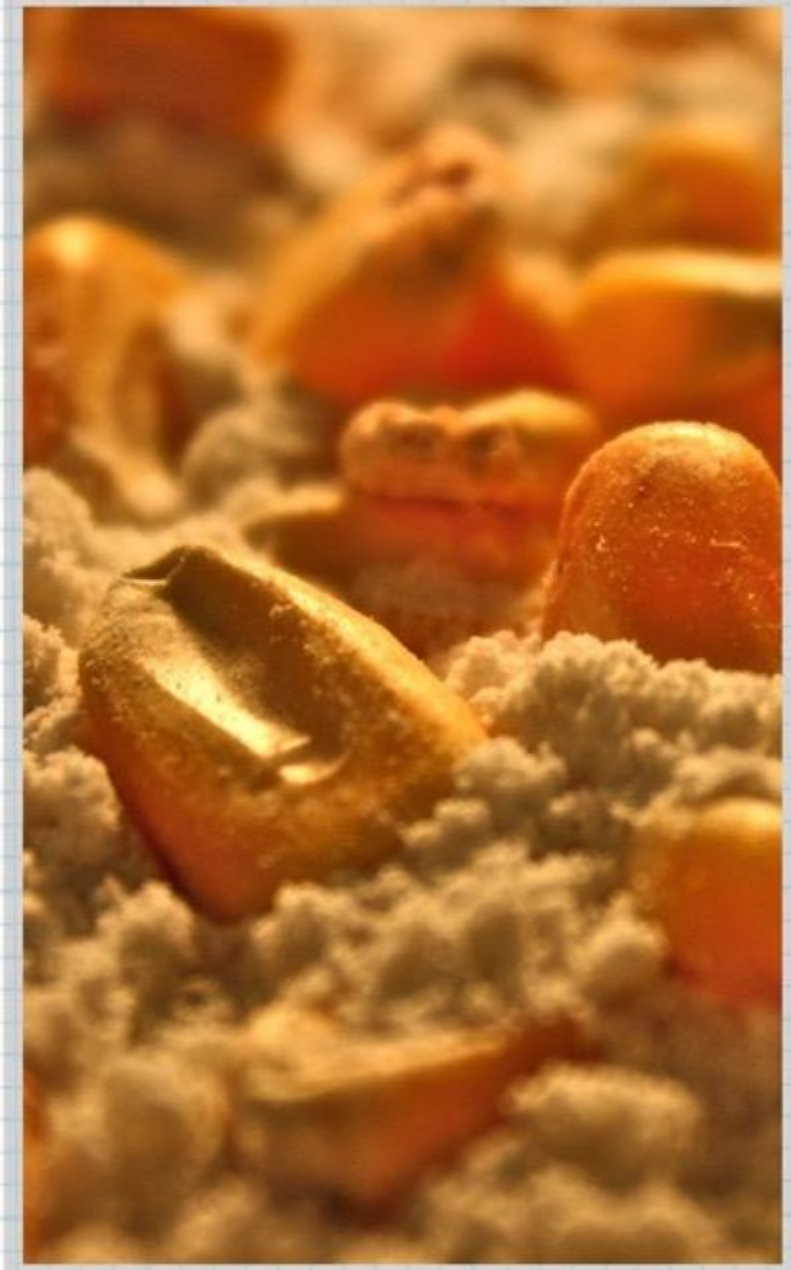
CORN MARKET

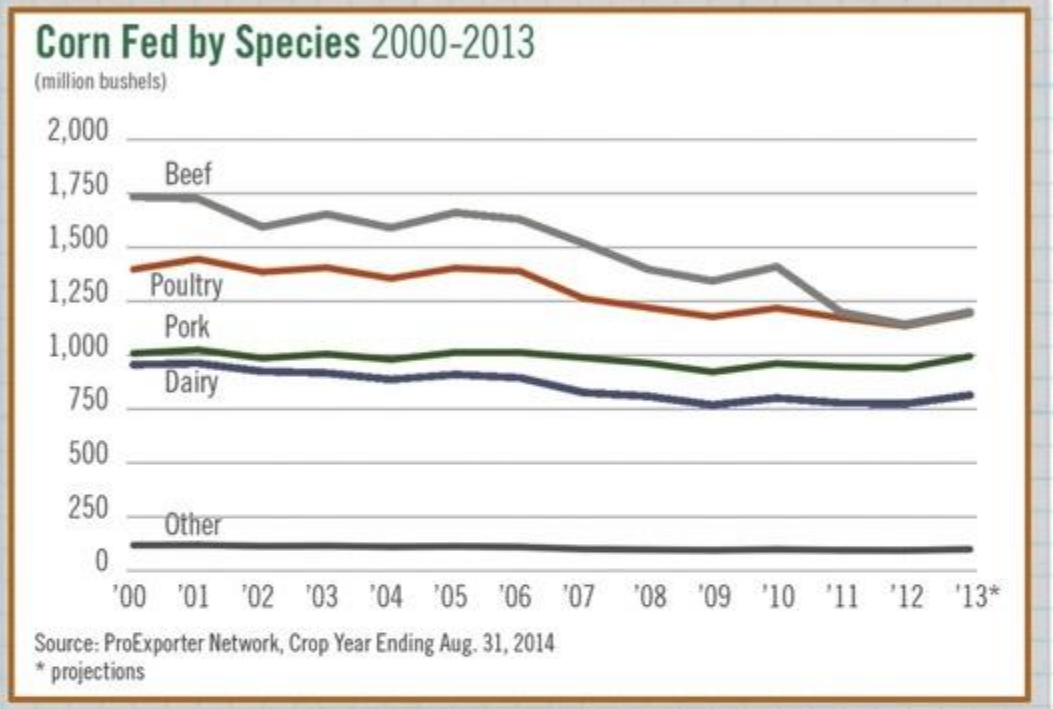
40% of the corn market goes to livestock feed



40% - Feed
30% - Ethanol
11% - Exports
8% - DDGs

CORN MARKET





- *The graph above shows the percentage of corn fed by species*
- *Masters Choice has obvious benefits in dairy*
- *The R&D Department is working to locate the specific benefits of feeding Masters Choice corn to the other three primary species*

Approx. Corn Fed by Species (2014)


Beef — 1,150 Million Bu.


Poultry — 1,200 Million Bu.


Pork — 1,000 Million Bu.


Dairy — 800 Million Bu.

With nearly 4 million metric tons, poultry was the most exported meat by animal.

Corn Bred With The End Use In Mind

Nearly all corns on the market today are vitreous, hard-endosperm varieties. Decades ago our industry was driven by the need to successfully market corn for export, requiring a very hard, tightly compact kernel that would stand up to the rigors of the export and shipping processes. To meet this need U.S. corn suppliers bred hybrids with a hard endosperm. These changes made starch up to 50% less rumen degradable, resulting in significantly reduced feeding efficiency.

Today, less than 13 percent of all corn sold in the United States is exported, while almost 40 percent is fed to livestock. The 5,275 million bushels of corn fed to livestock in 2014 represents, by far, the most significant corn usage in the country.

So, with livestock feed being such a substantial piece of our country's economy, why aren't more corn suppliers spending research dollars focused on improving feed efficieny? Quite the contrary, most companies focused their efforts on hard, high test weight varieties.

At Masters Choice our main purpose is helping to improve the efficiency of livestock operations across the country. We are dedicated to researching and devloping the most cutting edge products on the market, regardless of what our competition does.

TOP 10 STATES

2014 Acres of Corn Silage Production

Wisconsin: 850,000
Minnesota: 500,000
New York: 450, 000
California: 420,000
Pennsylvania: 410,000
South Dakota: 400,000
Michigan: 320,000
Iowa: 310,000
Nebraska: 260,000
Idaho: 235,000

Did You Know?

The state of Wisconsin produced close to 16 million tons of corn silage in 2014. Also, the state of Arizona led the country with an average of 29 tons per acre.

**Silage production stats courtesy of USDA Crop Production 2014 Summary*
Other stats courtesy of National Corn Growers Association 2015 World of Corn Report

MASTERS CHOICE *is* FLOURY GRAIN!

Masters Choice - Floury Grain

Competitor - Vitreous Grain

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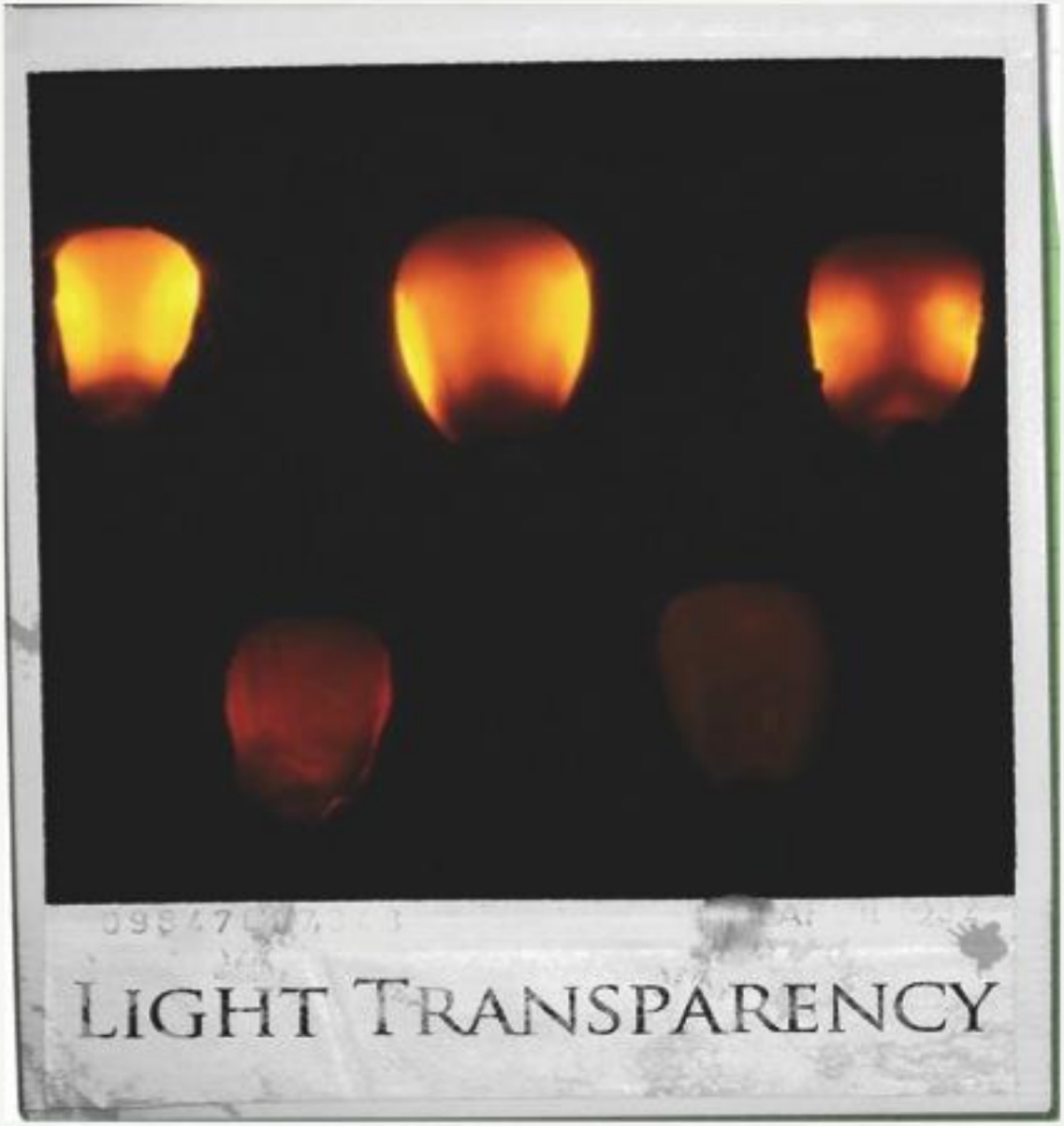

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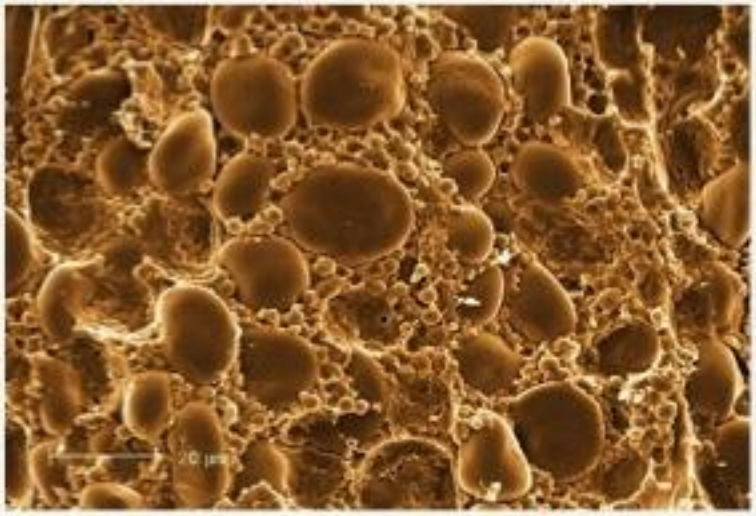
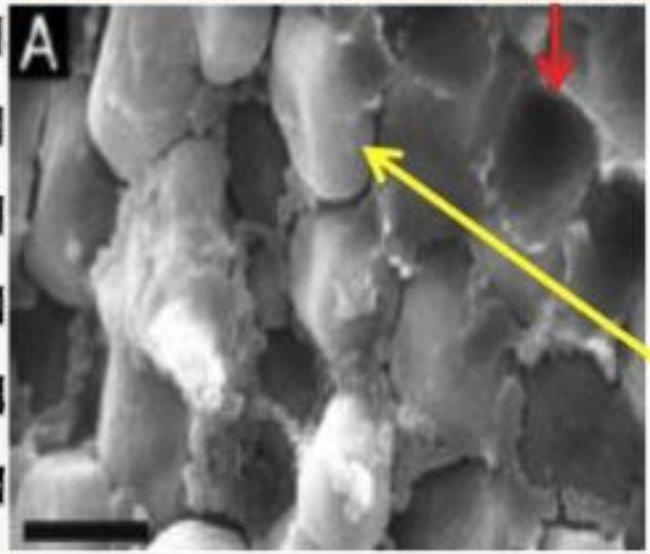
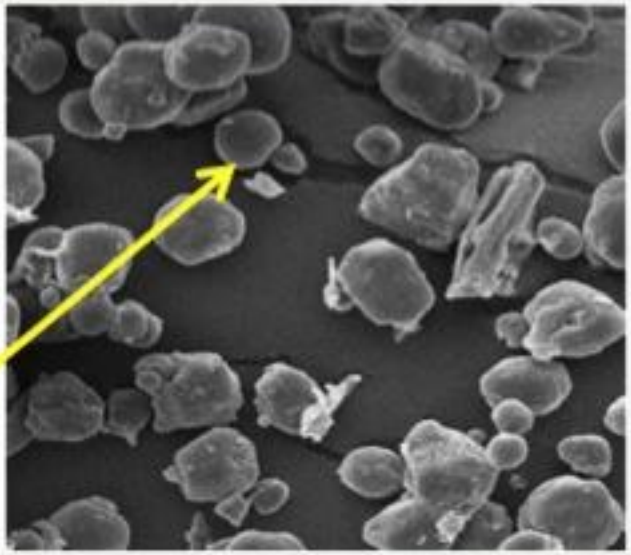


Zein Prolamin
- Alpha α
- Beta β
- Gamma γ
- Delta δ



Starch Granules

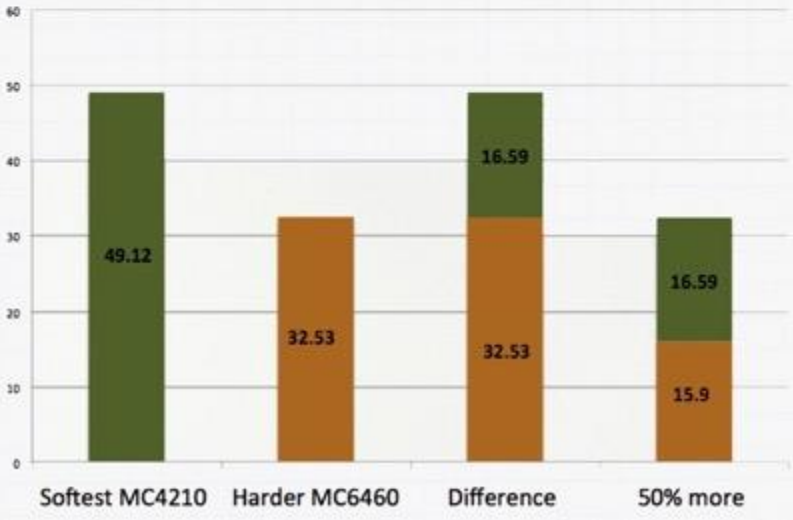


DIGESTIBILITY

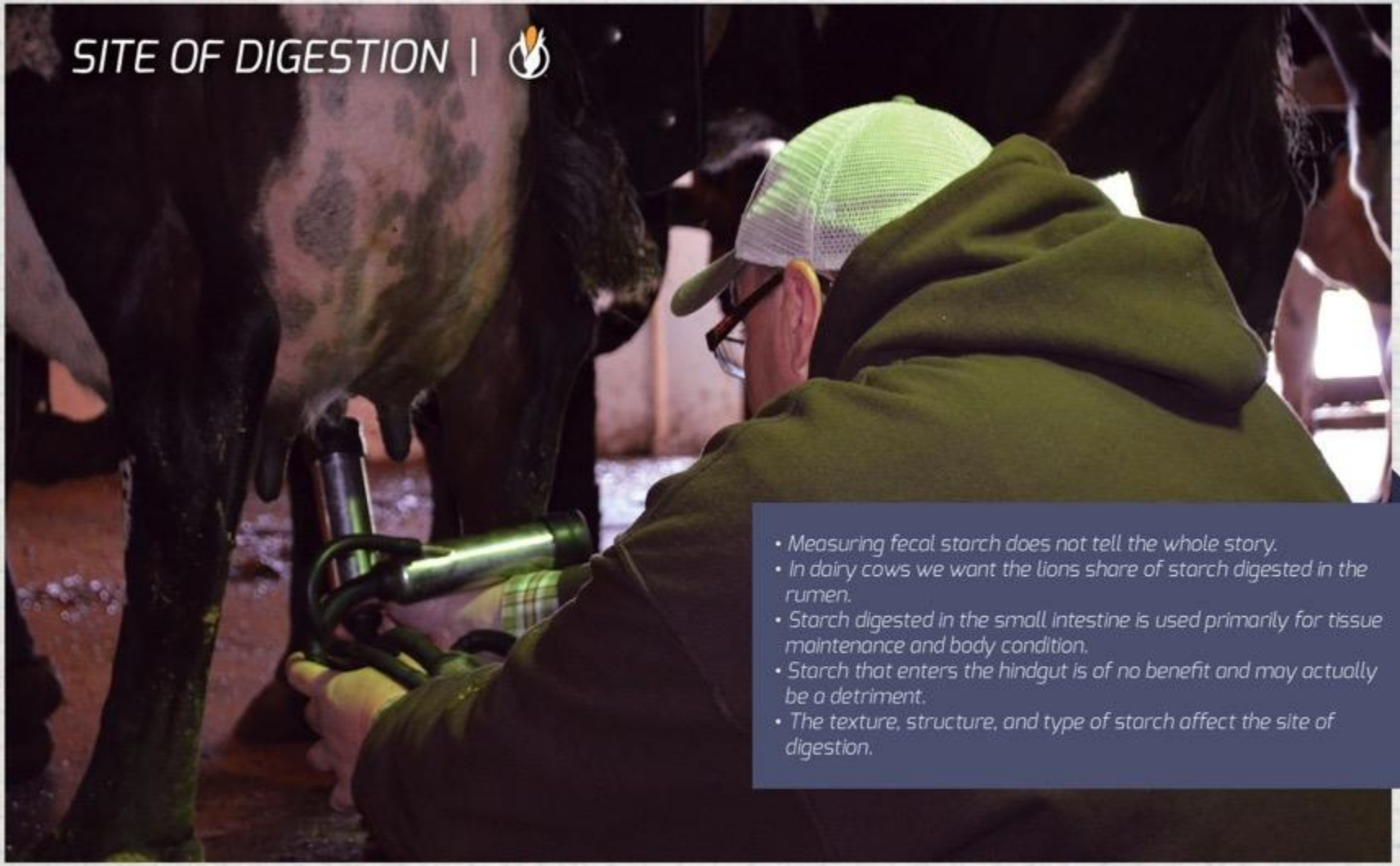
TEXTURE AND DIGESTIBILITY

Sample ID	Texture Ranking	Rock River Labs % digestibility
MC 4210	Softest 1	49.12
MC 4050	2	43.89
MC 527	3	48.69
MC 468	4	46.44
MC 5090	5	47.14
MC 3220	6	39.51
MC 480	7	41.85
MC 4560	8	42.79
MC 4880	9	41.22
MC 5370	10	35.7
MC 6150	11	41.39
MC 590	12	41.12
MC 6580	13	32.72
MC 5250	14	40.3
MC 6060	15	38.59
MC 5800	16	40.33
MC 6470	17	42.59
MCT 6894	18	40.57
MC 535	19	35.78
MC 4510	20	37.31
MC 4020	21	36.09
MC 3580	22	41.26
MC 6460	23	32.53
MC 534	24	37.78
MC 6020	Hardest 25	33.68

Up to 50% more digestible

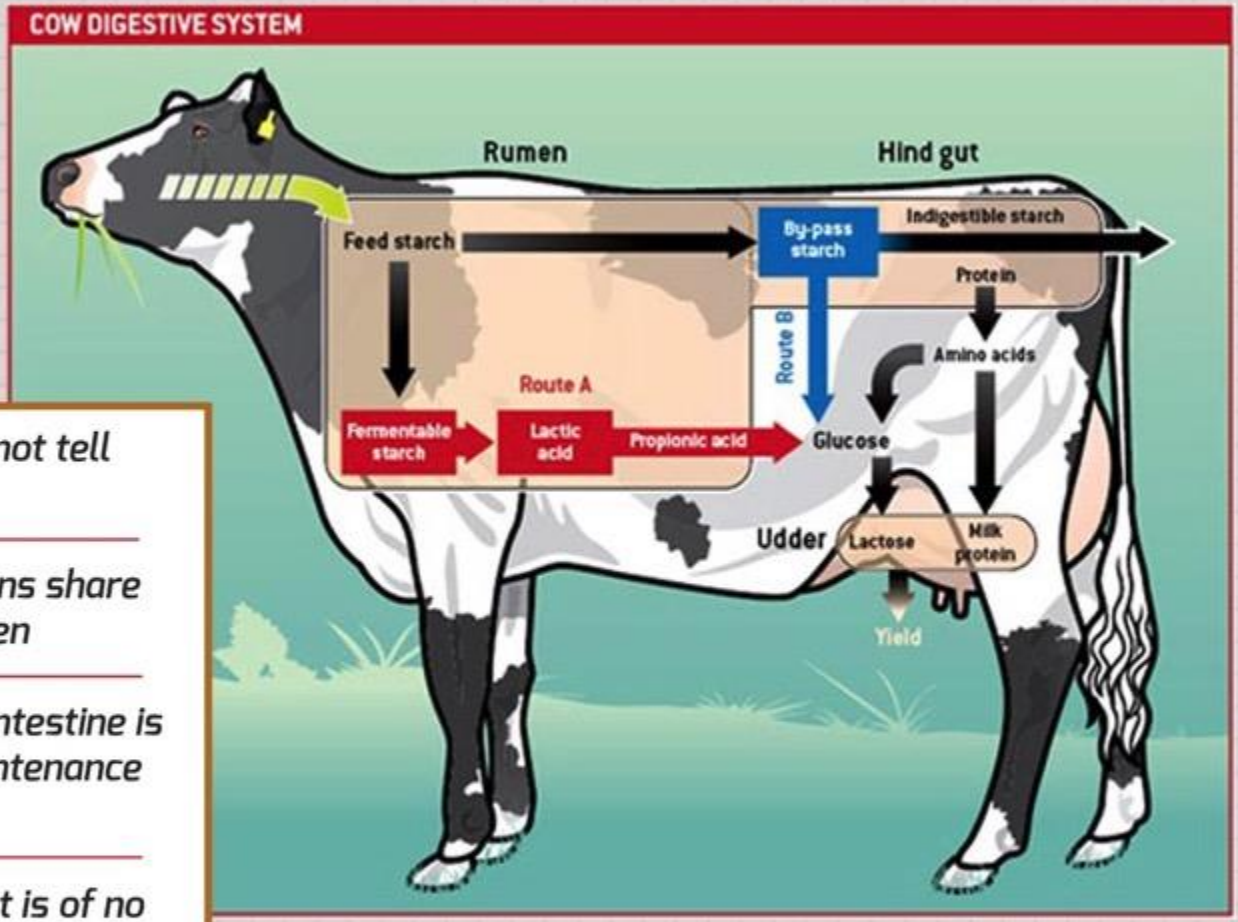


SITE OF DIGESTION |



- *Measuring fecal starch does not tell the whole story.*
- *In dairy cows we want the lions share of starch digested in the rumen.*
- *Starch digested in the small intestine is used primarily for tissue maintenance and body condition.*
- *Starch that enters the hindgut is of no benefit and may actually be a detriment.*
- *The texture, structure, and type of starch affect the site of digestion.*

SITE OF DIGESTION



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One of the major reactions of rumen fermentation is **Volatile Fatty Acids (VFA), which are a primary source of metabolizable energy for the cow**.

Another is the growth of **microbial cells, which are the main source of metabolizable amino acids for both maintenance and milk synthesis.**

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Hybrid	Hardness	RR in-situ 7rhr	Microbial Yield Grams
MC4210	84 (softest)	49%	1937
MC6460	104 (5th hardest)	33%	1804
Difference			133 grams

"If one compares corn silages using CPM, an increase in 7hr starch degradability from 70% up to 78% will result in a **41g increase in microbial** MP supply and a increase in microbial efficiency creating **5 lb. increase in milk production**"
Dr. Charlie Sniffen, Fencrest

RATE OF PASSAGE |

Rate of Starch Passage %/Hour

- The Dry Floury Grain Passes Twice as Slowly As Dry Dry Vitrous Grain
- Interestingly, the Floury Grain Maintains its Advantage When Compared to High Moisture Grain
- Floury Grain stays in the rumen longer, making it more efficient in milk production

Ying & Allen, 2005 J of Dairy Sci 88:393

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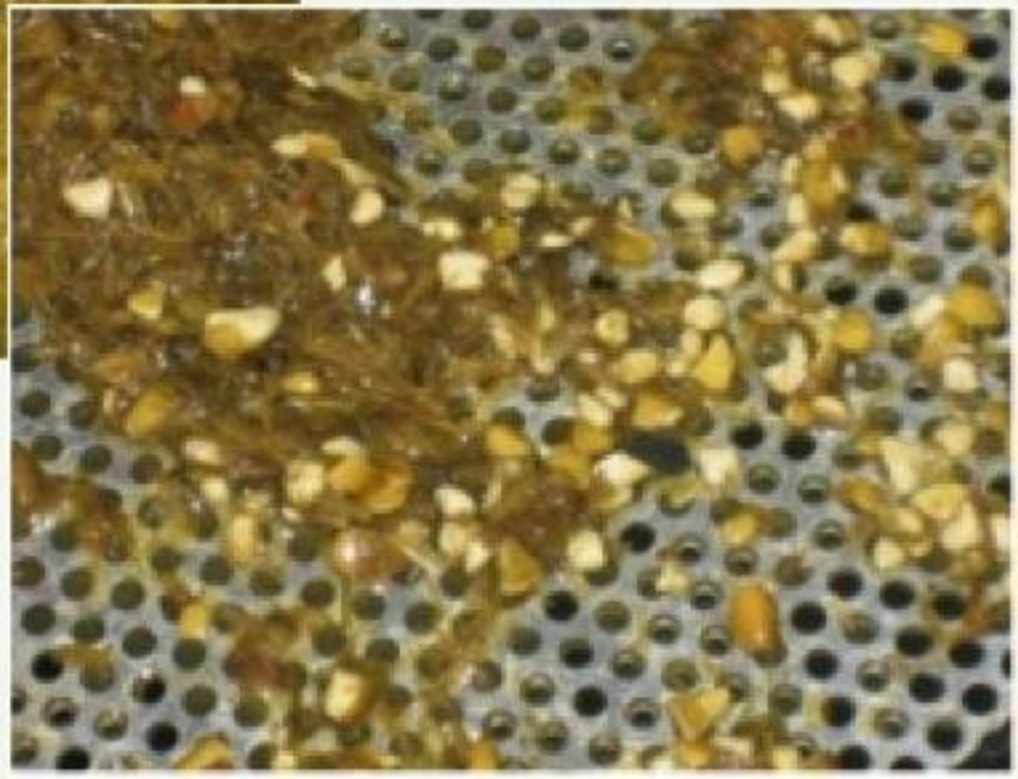

Courtesy:
Advanced Ag System

FEED FIRST: AVOID THE FALL SLUMP

With over 40 percent of the corn produced in the United States going to livestock feed, Masters Choice has recognized the need to develop hybrids specifically bred for feeding. Over 85% of our lineup is softer than the industry average, allowing the starch to be more easily accessible in the rumen. Floury grain is a key factor in our breeding and selection process because it allows you to maximize the efficiency of the grain in your rations.

One of the clearest ways to depict the advantage in efficiency you experience with floury grain is through 7 hour in-vitro starch degradability. This number represents the percentage of available starch in your grain. ***The chart to the left displays a three-week rolling average of 7-hr. starch for all of the samples at Cumberland Valley Analytical Services (CVAS).*** *As you can see, the CVAS rolling averages start around 65% and increase to 75% after 105 days. To the left, you can see the CVAS averages for the Masters Choice lineup and some of our cornerstone hybrids. The 7-hr. starch average for our lineup is already at 75% after only 28 days and only increases from there. That is a 15% advantage in starch availability of new silage when feeding Masters Choice.*

Hybrid	7-Hr. Starch	Days From Harvest
MC Lineup Avg.	75.09%	28
MC4050	75.79%	28
MC5250	76.03%	28
MC535	77.97%	28
MC590	75.10%	28
MC4560	81.00%	270
MC527	83.10%	240
CVAS Samples	65.89%	21
CVAS Samples	70.57%	42
CVAS Samples	72.42%	63
CVAS Samples	74.41%	84
CVAS Samples	75.22%	105

The chart above shows the 7-hr. starch of different MC hybrids at 28 days compared to our competitors at various stages.

Did You Know?

Recent research by Pat Hoffman and others at the University of Wisconsin suggests hybrid differenced may alleviate some of the lower starch digestibility seen early in the fermentation of corn silage.

Masters Choice Floury Grain contains less hard prolamin resulting in higher digestibility in the early months of ensiling allowing you to feed it early in the season without a loss in milk production.

What benefits are there to greatly improving feedability in new silage? We used to have to battle the early season dip in milk production with our budgets by increasing storage to ensile more corn, incurring higher inventory costs. We could play around with our rations or use substitute energy sources, usually at a higher cost and possibly having a negative affects on rumen function. The benefit of improved feedability in new silage is being able to increase and or maintain milk income without having to incur one of these other expenses.

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All CVAS Samples	75.22%	105


NUTRITION THAT YIELDS |
2.3
TON ADVANTAGE
22 REPLICATED SILAGE PLOTS
5.6
BU ADVANTAGE
22 REPLICATED GRAIN PLOTS
In 22 replicated plots, across the country, Masters Choice hybrids have shown a significant advantage, both in grain and silage yields.

Agrisure® Trait Packages

Masters Choice has built a reputation for having one of the strongest Non-GMO lineups in the industry, and as nearly 70% of our business we are firmly committed to that market. However, we also offer a variety of trait packages to help when they are needed. Look for select hybrids with the following traits:

	(Abbreviation)
Agrisure® GT	GT
Agrisure® 3000GT	3000GT
Agrisure® Viptera 3111	3111
Agrisure® 3122 E-Z Refuge	3122 E-Z
Agrisure® Duracode 5222 E-Z Refuge	5222 E-Z

To find which of our hybrids are available in traits or to learn more about each trait package refer to our hybrid guide or visit seedcorn.com.

NUTRITION THAT YIELDS

Corn hybrids that are industry leaders in nutritional qualities and are also second to none in yield and performance are what set Masters Choice apart from other seed corn companies. The Masters Choice lineup is filled with hybrids that feature floury digestible grain along with high fiber digestibility for total plant digestion in ruminant animals. Through the Masters Choice hybrid selection process, new hybrids are screened for superior agronomic qualities and yield along with nutritional qualities. The Masters Choice program tests new hybrids in plots around the United States and Canada to find material that will excel on your farm. They have yields that will rival any corn hybrid in the marketplace. These hybrids are selected specifically for use on livestock farms.

Masters Choice hybrids are well known as industry leaders in corn silage, but the hybrids have great versatility. Many of the top hybrids for corn silage also work well for dry grain and high moisture corn applications. The Masters Choice lineup is filled with flex and semi-flex hybrids. These hybrids perform best at moderate to lower populations. Flex and semi-flex hybrids allow the stalks and ears to flex, producing high silage yields with high fiber digestibility and excellent feeding quality.

Masters Choice hybrids also have great late season intactness and standability. The agronomic package provides great versatility for these hybrids.

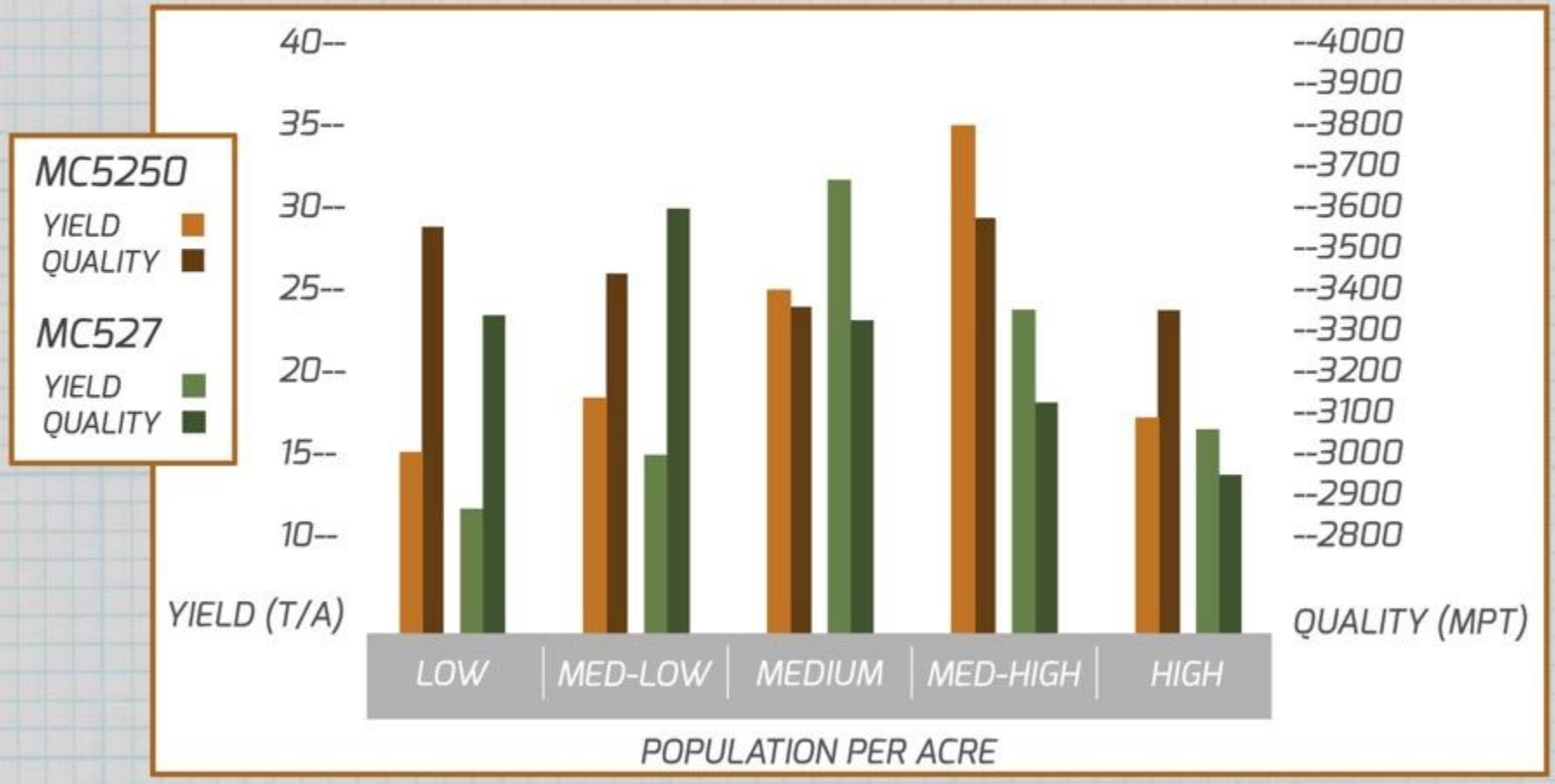
NUTRITIONALLY ADVANCED. BUT ALSO...

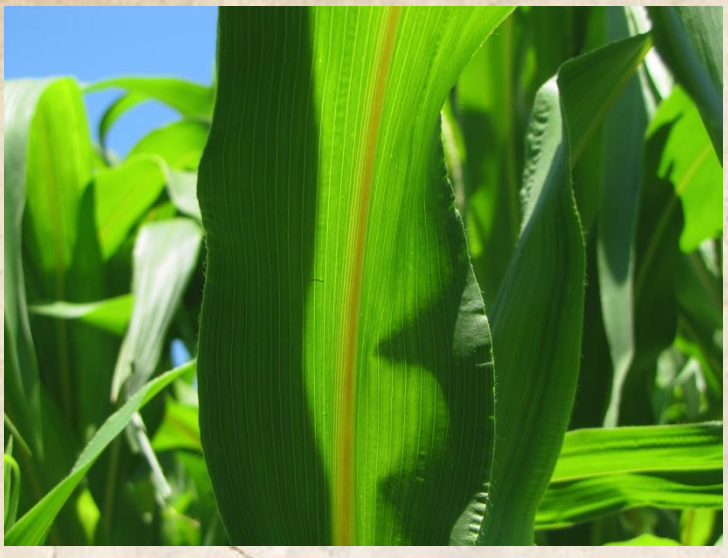
- Top Yield Performance
- Work well for silage, dry grain, and high moisture corn
- Selected for superior plant health and agronomic strength

POPULATION

This graph shows how population per acre affects MC5250 and MC527 by:

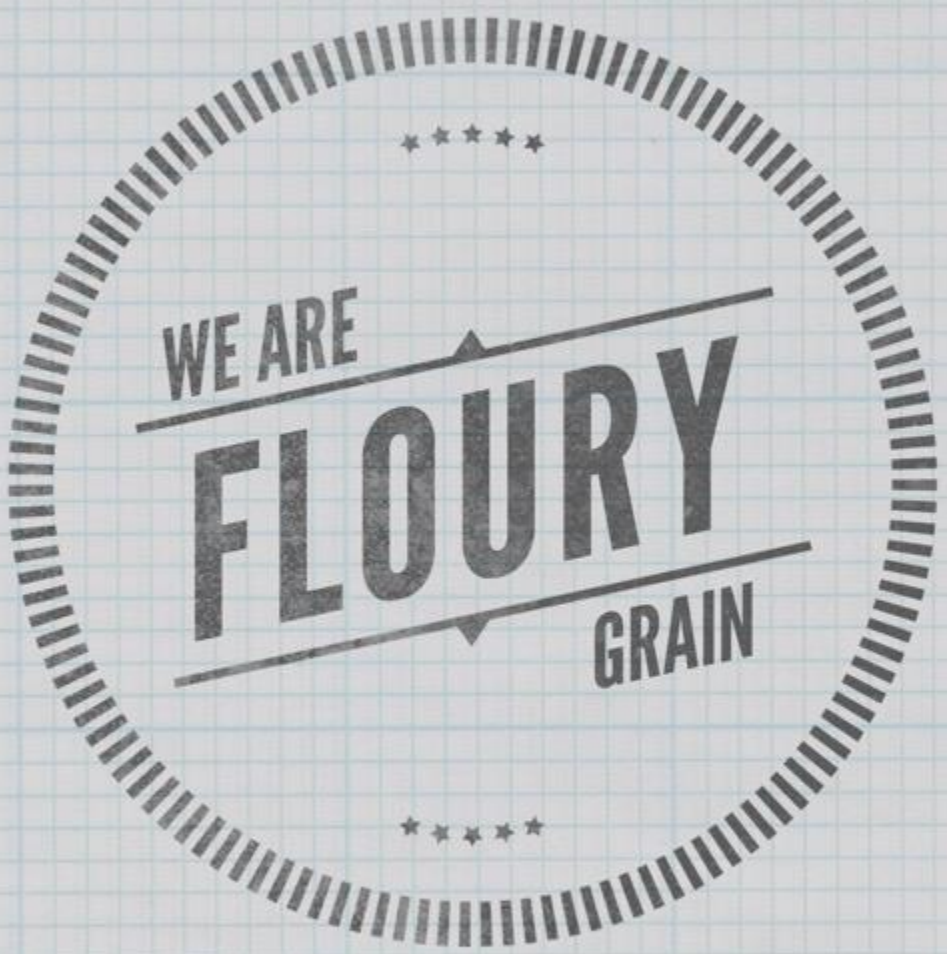
- Yield in Tons per Acre
- Quality in Milk Per Ton





MasterGraze…

- BMR
- Tillering
- Management Tips (available)


WE ARE
FLOURY
GRAIN