

Terms:

Cool Season – Orchard Grass, Fescue, Timothy, Ryegrass, Alfalfa Clover, Triticale, Wheat, Oats

Warm Season – Corn Silage, Sorghum Sudan Grass, Teff

Forage Feed Sample						
Product	Moisture	Crude Protein	Acid Det. Fiber %DM	NDF	NDFD-30	Net Energy Lcation (ADF Calc) Mcal/lb
Timothy	14.50	12.20	37.54	60.74		0.522
Green Spirit	80.76	21.59	18.23	31.87	69.60	0.82
Byrons Ital Plus	82.26	21.91	17.54	30.27	74.00	0.83
Hay Mix Lowland	21.11	15.38	27.84	50.66	68.61	0.73
Trical 336	47.97	10.27	34.31	59.34	54.25	0.67
Sil Lowland	58.23	20.50	32.58	48.77	60.53	0.65

All numbers are percentage

BRUNSWICK
FORAGE SEED SALES, LLC



Tim Brunswick
373 State Route 118
Fort Recovery, Ohio 45846
419-852-3477

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Newsletter
August, 2008

In the early part of 2005 I received a flyer to attend a Byron's Seeds forage meeting. The meeting was over an hour away and the day of the meeting the weather had made the morning milking less than favorable and the roads were less than desirable too. The main question of the morning was if I really wanted to take the time and effort to go to this forage meeting. Fortunately, I decided to go to the meeting because I met a very unique person that day. Lyn Crabtree came up and introduced himself to me and sure enough he came across as a smooth talking salesman. As the day went on, Lyn made a presentation on dairy nutrition and while listening to him I thought this guy might know what he is talking about. The focus of Lyn's presentation was feeding higher amounts of forage to the cows and then dividing the forages into equal amounts of warm season and cool season forages to maximize a dairy cow's performance. Well since that day I have stayed in contact with Lyn to try and pull as much knowledge as I can to keep implementing this information for myself and to pass it on to others. I started realizing the benefits shortly after I started feeding the way Lyn explained, but now several years later I am beginning to see the overall benefits of feeding the way Lyn presented that day.

Lyn has such a vast and impressive knowledge of dairy nutrition that in order to pass this information on I interviewed Lyn and the interview is published below for your benefit.

T: *Currently you are the owner/president of Masters Choice Hybrids. What was your background prior to becoming involved with Masters Choice and Byron Seeds?*

L: Prior to joining up with Masters Choice and Byron Seeds I was a livestock nutrition consultant, specializing in dairy. I worked for Moorman Feeds, Archer Daniels Midland Corporation, and lastly as an independent consultant. As a consultant, I had clients raising Masters Choice corn, and learned the fiber digestibility and starch availability made it feed different than other corn hybrids. Over time, I liked what I saw so much, I bought the Masters Choice company.

T: *What are Volatile Fatty Acids and what do they do for a dairy cow?*

L: Volatile Fatty Acids or VFA's are the form in which most of our carbohydrate feedstuffs are ingested by cows. The most common are ACETATE, PROPIONATE, and BUTYRATE. The percentage of each in the total diet is crucial to maximize digestion and performance. For maximum performance we balance these numbers by the type/percent of forage utilized and the type/percent grain utilized. These VFA's are the energy that promotes body condition and milk performance.



T: What is the importance of 5 carbon sugars and do the 5 carbon sugars in Masters Choice Hybrids enhance the VFA production in a dairy cow? Are these 5 carbon sugars found in the competitors' silage corns?

L: 5 carbon sugars hide in a forage analysis under NDF not % sugar. Most all silage varieties have 5 carbon sugars, but there is much difference in the TYPE and QUANTITY of 5 carbon sugars in each. Some 5 carbon sugars, like Mannitol, are absorbed directly into a cow's bloodstream without first having to be converted into a VFA. This is much more efficient. MC hybrids are high in Mannitol. 6 carbon sugars (% sugar in lab analysis) are the sweet sugars you taste in the stalk of MC hybrids. The amount and type of each, create the amount/type of VFA's. The amount and type of sugar also aids in rapid silage fermentation, a quality MC hybrids are well known for. Fermentation also dramatically controls the percentage of VFA's produced. Both 5 and 6 carbon sugars are important, and the type and percentage of each required for peak performance strongly favors MC hybrids.

T: Are there other feature of MC corn that enhance VFA production or promote dairy cow health?

L: 1. MC hybrids convert into very little butyrate being produced in our cows. Too much butyric acid in our cows rumen, limits the absorption of acetate and propionate. Butyrate acts like a "gatekeeper" limiting absorption of other VFA's (largely acetate and propionate). Less butyrate, equals more total VFA absorption, and more milk production.

2. Starch availability. The floury grain in MC hybrids is more available as an energy source than common vitreous hybrids. We almost always feed less grain when feeding Masters Choice hybrids. With the price of grain today, a 10 – 20% increased in the starch digestibility is a HUGE savings to producers pocketbooks.

T: What is the importance of NDFd and do the NDFd's found in Byron's warm and cool season grasses enhance the VFA production in a dairy cow:

L: NDFd is an "indicator" of the ability of a forage feedstuff to make milk. If the forage is not digestible, it is only going to make more poop. Not all digestible nutrients go into making milk. Many of our digestible nutrients escape absorption because of improper nutrient balance. Balancing diets for correct VFA percentage through forage management plan is crucial. A diet which has at least 60% forage DM and a maximum of 40% grain DM is the best target, and a ration that has equal parts of warm and cool season grasses on a DM basis tend to produce more nutrient absorption.

T: What other benefits should a cow receive when fed Byron's warm and cool season grasses?

L: Energy from forage. Diets balanced with adequate energy levels from forage are easier for nutritionists to balance, safer to feed, produce more milk longer, and result in healthier cows.

T: What overall health effects should a dairy farmer see in his dairy herd by feeding improved forages and increasing the VFA production in a cow?

L: Correct, balanced nutrition is a huge factor determining herd health. Energy from forage is the biggest contribution Byron's forage seeds bring. A cow's lactation curve on high



Lyn Crabtree of Master Choice Hybrids

energy forage can be higher and persist longer than a high energy grain diet, and it's much cheaper! Acidosis is reduced or eliminated, breed-back is improved and cows simply last longer in the herd as culling can be significantly reduced. Oh yeah, reduced vet calls is a benefit of improved forage quality.

T: What agronomic features does Masters Choice offer the individual who is strictly a grain farmer and sells corn as a cash crop?

L: Healthier plants, bred to be that way NATURALLY! The things important to row crop specialists are yield and harvest ability. We think if people give us a chance, we can #1 prove our yields stack up with anybody in the industry, and #2 harvest ability can be enhanced by GMO science, healthier corn plants, or both. We believe farmers deserve to choose the tools they need to manage harvest ability on their own acreage. We have hybrids that have denser roots and higher sugars that protect themselves from lodging even under insect pressures. Many farmers find our plant health is adequate for most circumstances, but if insect pressures (corn borer & root worm) are severe, YieldGard or YieldGard Plus are available. For yield and stand ability through harvest, we think we lead a "new" ideology – healthier corn plants bred the old fashioned way through hard work.

T: Do you have any other comments?

L: Increased prices for land, rents, fertility, fuel, feed and seed have forced us to look for forage combinations that not only produce maximum yields, but compliment each other in the ration they create. The thing I like about Byron Seeds the best is they are striving to provide the best forage seeds for the whole farm package. Yield is extremely important if anyone says it's not, they are crazy. Producing that yield with the least cost methods and putting the resulting forage to best use to make milk or meat is Byron's goal. Other seed companies do not provide this whole farm concept type of service. We at Masters Choice are extremely pleased for our Byron Seed affiliation, and the quality of dealers Byron Seeds associated with.

After reading the above interview, you should be able to see the vast array of knowledge that Lyn Crabtree uses breeding Master Choice corn and providing technical support to Byron Seeds. If you are thinking all of my crops are already in the field and I cannot do anything at this time, I would beg to differ. Right now you should start thinking about a forage plan for next year. This forage plan can be started right away and here are some of the forage options that can be implemented short term by month.

August – October – Seed Trical 336 after wheat or corn silage. Trical 336 will be ready to harvest around May 15. Trical 336 will provide 12-15% protein and excellent NDFd levels. Also carries a high NEL value. Follow up with corn or sorghum sudan.

August – Add 3 – 10 pounds of orchard grass, Timothy, or Fescue to alfalfa seeding. These grasses will increase NEL and NDFd of haylage or baled hay.

August-October – Seed 15# Timothy after wheat or corn silage. This will be ready to harvest by June 10 and makes excellent dry cow feed. Following the harvest of Timothy double crop with Masters Choice corn or Sorghum Sudan. In 2008, Timothy seeded in October 2007 yielded 2.4 ton dry matter per acre on one cut.

September – February – Corn, Alfalfa, and Premium Grass Presale Period – Call to set up an appointment to discuss a forage plan for your farm.

August – October – Interseed 3-10 pounds of O.G., Timothy, or Fescue into existing alfalfa.

Please call me at 419-852-3477 to make an appointment or if you have any questions.