

GROWMARK FS Seedlings



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About the author of Rumenations:

Ron Wilston joined the GROWMARK FS Seed Division in June 2006 as a Dairy Nutrition Seed Specialist. His role is to serve as a link between the FS Seed Brand and the dairy industry. Ron's tasks include: speaking at producer meetings; farm consultations; technical support on the use of FS Seed hybrids and products on farm; and giving direction to product development and selection to better serve the dairy industry. Ron has nine years experience as a Dairy Nutrition Specialist with the feed industry. Born and raised in Troy, PA he currently resides in Bath, NY with his wife and three sons.



Rumenations

By Ron Wilston, Dairy Nutrition Seed Specialist

"My cows won't milk! I know it's not my forages – just look at the test results!"

I have heard that statement or something similar, repeated over and over in my years as a dairy nutritionist. While it might be true that it is not the forages that are the issue, let's look beyond the test results to be certain. Let me explain.

A standard forage analysis for balancing rations, most commonly a Near Infrared analysis or NIR, measures only nutrient content, or for all practical purposes, the *potential* nutrient content. It does not measure the digestibility potential of the forage. These nutrient contents are divided into two categories: Non Structural and Structural. The non structural nutrients include: cell content; protein; sugar and starch. The structural nutrients include: cellulose; hemi-cellulose and lignin. There is nothing wrong with using NIR analysis to balance rations. In fact, I used them for years. But remember, they are only part of the milk production equation.

The other part is knowing the digestibility (i.e. the availability) of the nutrients to help you and your nutritionist (if you have one) make the necessary adjustments to your ration. There are two nutrients that we commonly test the digestibility on: Neutral Detergent Fiber or NDFd and starch. The digestibility of these nutrients are tested one of three ways: In vitro (finely ground dried forage put in a simulated rumen in a lab), In situ (an as-fed forage sample placed in the rumen of a cannulated cow) or NIR analysis that is calibrated with an In vitro test. All testing methods have validity but answer different questions.

- In vitro and NIR testing answers the question "what is the potential digestibility of the feedstuff."

- In situ answers the question "how much does the cow actually digest: not how much she could theoretically.

Anyone of these three methods can help you or your nutritionist figure out why your cows won't milk if the problem is with your forages.

Another management tool that can help eliminate this problem is proper hybrid selection. Hybrids for corn silage need to be chosen based not only on yield, but on the hybrid's digestibility and milk production potential. It is important nutritionally to have the best available forages for milk production. Hybrids should be chosen from companies with a long history of silage testing, and not just a fancy pamphlet with "silage characteristics" in it.

GROWMARK FS has two decades of NDF digestibility testing, and we use it to continually improve our hybrids. In 2003, we began testing starch availability of our hybrids, which helps us to understand the differences in starch digestibility and rate of digestion in order to better manage rations and use less purchased corn meal. More on the entire GFS program can be found in the adjoining article on page 2.

In conclusion - just because the test results look like the forages should make milk, does not automatically translate that they will. More testing may be needed to figure out what is wrong, and more planning needed to prevent it from happening again.

~ Ron

GROWMARK FS, LLC
Satisfying Customers. Profitably



Seedlings



GROWMARK FS – A leader in Digestibility Testing of Hybrids

The FS Seed line has the longest running silage NDF digestibility program in the Northeast. Starting in the late 1980s, in cooperation with dairy nutritionists and dairy producers, we began our forage quality program. The foundation of the program was to have balance between agronomic stability and improved forage digestibility – focusing on both dry matter digestibility (DMD) and neutral detergent fiber digestibility (NDFd). We continue to evaluate the digestibility of each of our hybrids and potential products so that we can make improvements to the digestibility of our line up and our regionally adapted agronomics.

In 2002, we decided to award the XFP shield, which symbolizes eXcellent Forage Potential, to hybrids that consistently demonstrated exceptional agronomics and nutritional performance for silage. The benefits of the XPF hybrids are:

- Consistently exceptional digestibility ratings coupled with outstanding agronomic characteristics
- Regionally adapted genetics
- More milk per acre
- More consistent forages for healthy, productive rumens
- **Digestibility without Sacrifice**

After more than a decade of NDF digestibility research, we decided to look at starch digestibility in 2003. We evaluated the starch fraction of the plant to determine if there were measurable differences in starch digestibility. The results were compelling. However, we wanted to make sure that our findings were repeatable. Three years of evaluation proved our findings were real and significant. We found that some hybrids were digesting much faster than their counterparts, some as high as 40 percent of their starch being released in the first four hours in the rumen. In 2006, we designated these varieties, Rapidly Available Starch (RAS). As the only seed corn company to have identified hybrids that show this characteristic, we continue to show our commitment in helping you achieve Maximum Lifetime Productivity. The benefits of RAS varieties are:

- Faster rumen starch digestion
- More energy available
- Healthy rumen environment
- Maximum dry matter intake
- Allows higher forage diets
- Reduces purchased feed costs
- **Maximum Lifetime Productivity**



Feeding Alfalfa for Improved Rumen Health

Our focus on the nutritional quality of on-farm forages has not been limited to corn silage. GROWMARK FS has also been evaluating and selecting alfalfa and other forages to help meet the increased demands of nutritional quality while maintaining a healthy rumen.

Properly harvested alfalfa contains high levels of available protein and digestible fiber.

ALFALFA:

- Is a rapidly digestible forage
- Supports high forage intake which improves rumen health
- Has NDF digestibility and energy content that rivals bmr corn silage
- Reduces purchased protein cost for the ration

Most university research shows that cows fed a forage based of alfalfa plus corn silage will outperform cows fed solely corn silage or dry alfalfa hay and silage.

But, like corn, quality alone should not be the ultimate deciding factor. The most significant gains in nutritional value will be realized through an integrated crop and feeding program that includes:

- Correct species for the soil types and climate
- Variety selection for the proper maturity, pest resistance, harvest schedule and yield
- Proper planting practices
- A balanced fertility program
- Pest control
- Harvest, storage and feeding management

GROWMARK FS focuses on the total performance of our products to provide dairies with the ultimate homegrown feedstuffs for maximum lifetime productivity. It's just another way we Satisfy Customers, Profitably.



Resurrecting New Seedlings and Established Alfalfa



By Don Jones, CCA – Agronomist GROWMARK FS – Northern Region

The wettest fall in New York history may take its toll on a very valuable forage crop - alfalfa. Well prepared seed beds on well drained soil with excellent pH's and high fertility had an excellent start to an establishment, but then got flushed by a downpour of rain, washing out fields and leaving standing water on even the most well drained ground. This left alfalfa dying in pockets on almost every field.

Top producing alfalfa with an excellent disease package against Aphanomyces, Phytophthora root rot, Anthracnose, Verticillium Wilt, Fusarium Wilt, and Bacterial Wilt are under stress attack. These high yield, excellent disease varieties will need to be tested. A couple of varieties that should withstand this type of condition and have a disease package to protect itself are **Mariner II** and the new **Mariner III** from **GROWMARK FS**. Mariner II & III were developed to withstand these very conditions because of their branching root systems. These varieties can take high water tables on heavy wet soils. They also offer great yield potential because of the plant structure and large leaves and have outstanding disease resistance ratings. The branching root system is a key to help the plant survive. Traditional alfalfa has just one large tap root to store carbohydrates.



Damage to this type of root system makes it hard to survive the winter and have enough energy to develop the fine root hairs that help keep it anchored and resist early spring heaving.

Mariner II and III have multiple roots to store their carbohydrate reserves and thus have a better chance to survive winter injury.

Because of the cold wet fall in New York, there is the potential for a poor root system going into the spring. **It's time to plan your action on this high value forage crop now to save it.**

- Check low areas where water stood. Are plants healthy?
- Look at the root system. Are there signs of damage/disease?
- Check the number of plants per square foot. Check 5 to 6 areas in the field. You should have a minimum of 8 plants per square foot on older stands and 12-20 plants on newer seedings.

- Are there any heaved or dislodged plants? What percentage of the stand count is heaved or dislodged?
- In new seeding if there are bare spots and other areas that have acceptable population, you can consider frost seeding in late March or early April.

There are many options to help these weak plants. Promote early root growth and fight off early season disease with an early topdress of a complete analysis of dry fertilizer. If you did not topdress last fall, ammonium sulfate, MAP, sul-po-mag and edge-cal at 100 lbs of each in a blend and 1 lb of Boron per acre is recommended. If you did winterize and want to jump start your plants, apply our liquid foliar - Folyzme and Nitro-9 at 2-1/2 gallons per acre. These products contain Nitrogen, Potash, Magnesium, Calcium, and other trace nutrients and growth hormones that will help get your alfalfa back in top shape and promote healthy support systems.

Take the action now to get your alfalfa in-to top shape. If you'd like to discuss your own unique field situation, contact your nearest GROWMARK FS facility. We're here to help!

Decisions that PAY on Wheat

By Denis Shaffer – Marketing Manager – GFS



Spring 2007 is here! With the new spring come opportunities that you have not seen in many years. You, our growers will have choices to make that will have great impacts on your successes in 2007. Some of these choices are the gambles that we face every year. What crops to plant that will return the most for your investment, corn or soybeans? How many bushels do I sell ahead and when do I contract these crops? What fertility and crop protection programs do I use? Opportunities? Every one of them!

If you planted wheat last fall, you have some decisions that need to be made about that also. For one, it is worth well over \$4.00 a bushel at the time of this writing. Two, it went through some wide swings in weather in the first few months of its life. It had one of the warmest November and December's on record. Then, winter came on with a vengeance. Some record cold and even a snow cover and ice in

some areas. By now, you have probably given the wheat some food to nourish it when it comes out of its winter rest. With the value of this wheat as high as it is and the straw at a premium, it is imperative that you feed for top yield, and protect it for the highest quality, grain and straw.



Your GROWMARK FS team member has given you the best fertility advice on growing the highest yield you can grow. Now we need to work on protecting your grain

and straw. By keeping your grain healthy and free of the predominant diseases that attack wheat in our geography: Leaf and Stripe Rusts, Powdery Mildew, Septoria Leaf Blight and Glume Blotch. Any or all of these diseases can affect your yield, grain test weight and straw quality.

Both Headline® from BASF and Quilt® from Syngenta have consistently proven to

increase yields by as much as 10+ bushels per acre. By combining either of these products with our **Protyx™** Activator Adjuvant for Fungicides, you will be able to pick up an additional 5+ bushels per acre. **Protyx™** is the only adjuvant on the market that was specifically designed to be used with fungicides. **Protyx™** is only available from GROWMARK FS.

Let's do the math:

Approximate Fungicide Cost	\$15.00
Protyx™ Fungicide Adjuvant	\$ 2.50
Total Investment	\$17.50

\$17.50 ÷ \$4.00/bu. wheat = 4.38 bu. Increase to pay for your investment!

Or look at it this way, a conservative yield increase 15 bu. X \$4.00/bu. = \$60.00 \$60.00 - \$17.50 = and additional \$42.50/acre in you're pocket! You cannot pass up that opportunity. Talk to your GROWMARK FS Team Member today!

New GROWMARK adjuvants make your SPRAY really PAY!

It seems that every year, for the past twenty years or so, we have talked about all the new pesticides that will be available each spring. While pesticides have made some major advancements over the last couple of decades, so have the adjuvant technologies that help those pesticides perform at higher levels

and, with more consistency, under a wider range of weather conditions.

Recently adjuvant technologies have advanced well beyond ordinary surfactants and crop oil concentrates. In fact, many of the new adjuvant technologies available from

GROWMARK FS were specifically developed to deliver more value to our customers than ordinary adjuvants. Make sure you stop in and visit with one of our Agronomists to see how these advancements in adjuvant technologies can help you maximize the value and payback you receive from every aspect of your pesticide application.



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