



GENETIC ALTERNATIVES



YOUR NEWSLETTER ABOUT THE LATEST ON SEED RESEARCH

Vol. 3, Issue 2
Summer, 2016

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From the Corn Capital

by *Raechel Baumgartner*

Wow, what a spring! Or first half of the year, really. It is hard to believe the year is almost half over—probably because I tend to think in terms of the crop cycle, and winter in Minnesota “doesn’t count”. (Or I am so darn cold that I choose to block out November through March. That is a possibility.)

We are off to a great start at North this year. We started counting yield trials in January and putting fields together in March. By the end of April, we had already planted three yield trial locations, started planting the nursery, and had every single corn yield trial field in order and ready to plant. That had never happened before. We were also done planting corn yield trials on May 14th, which is amazing, and a huge part of that is because we were very lucky with the weather. We had rain showers that kept us out of the field, but we did not receive nearly as much rain as areas to the south or east of us did. We also started out the year still in a moisture deficit from last year, and the rain was actually a welcome sight. When we finished planting yield trials, we were able to turn right around and start stand counts with one crew, while another crew stayed to keep planting nursery and ICBs. We have ten very capable and competent people working together right now.

I have to share a planting story. When the time arrived to plant the second dates of males & females for the ICBs, the threat of rain was imminent. The >75% chance of rain had been static in the forecast for ten days. The morning we needed to start planting, we all woke up expecting clouds and soggy ground. Instead the sun was shining, and we started rolling, thankful for the gift we were given. In one and a half days, we coordinated planting within a seven mile radius of our office using two planters, four people, 12 different males, and 11 sets of females—all without a single hiccup, misstep, or mistake. I had never witnessed such a complicated dance of planting go so flawlessly before. The timing was perfect, down to both planters finishing up the second day in the same field at the exact same time and five minutes before the rain clouds arrived. And we nailed the delays exactly. I am still in awe of how well everything clicked, and I am proud of how well our group works together. Do not misunderstand me: we have had our issues of breakdowns, weird events, and disagreements, but we are working together to solve problems the way that a team should.

I am excited for pollination and detasselling to start. The number is daunting (~144,000 pollinations based on the number of seeds planted, and ~21 acres of ICBs to detassel), but I am so excited about how well our core group of people is working together that I think we are on track to have a great pollinating & detasselling season. (I am knocking on a giant log as I write this, though.) We were actually able to start shootbagging on June 29th, which is ridiculously early, and we might even be able to hang a few tassel bags on July 1. We shall see.





Musings from the Resident Revolutionary

By: Erin Rodriguez



I am a bit of an odd bird. Any of you who know me know this to be the case. I have the unofficial title of Resident Revolutionary here in the office. While this is a playful name for me, it is somewhat accurate. I am fortunate to work with people who may not always share my political or social views, but who are willing to have the conversation. Every time I work on our newsletter, I end up in heavy conversations with coworkers about the social implications of what we do in agriculture. I am inevitably left with a sense of awe because more often than not, we all want the same goals. We may differ in our prescriptions or solutions and maybe even in our analyses, but in general we want peace, prosperity and justice. We want the best for our families, communities and company. When we engage in these conversations, we are forced to rethink and reevaluate our assumptions.

This is indicative of our culture at 3MG. We are constantly reevaluating and testing our assumptions, our facts, and looking for ways to apply them to benefit our company, our customers and our environment. We engage in conversations that may not be easy, but they are done with respect. Those conversations are both internal as we evaluate ourselves and external as we engage with our customers. We look for solutions rather than focusing on our differences. This is what constant improvement is about. It requires a respect for one another, for the community we serve and for the planet we share. It requires the ability to listen openly and to cooperate with one another while focusing on a common goal.

From a social perspective, companies have responsibilities that extend beyond just making a buck. Those responsibilities include social responsibility, environmental responsibility and economic responsibility. It is not an easy task to balance these responsibilities while making a profit. We have all heard the stories of unscrupulous business owners who are more than willing to forgo one or more of these responsibilities in the name of the almighty dollar. Here at 3MG we do not take that approach. We understand that being ethical is profitable and that responsibility is not a burden but rather an opportunity. Being responsible is an opportunity to contribute to the greater good, to be leaders in our industry and to create value for our customers. Have we perfected it? No. Are we working on it? Yes.

Imagine how hard it is for a crazy leftist to find a company that they feel good about working for? Not an easy task. I try to be a principled person in every aspect of my life. Work is a huge portion of that. I am fortunate to work for a company that is constantly striving to be environmentally, socially, and economically responsible. I love that I have a boss who is forward thinking. I love that I work for a company that is concerned about environmental sustainability. I love hearing the excitement in Ed's voice when he and Raechel discuss corn. I love being a part of a family company. I love that I get the opportunity to serve our customers – who are truly the salt of the earth. This little leftist found her niche, and I am grateful to every person who comprises a part of this company and community.

EMPLOYEE SPOTLIGHT



Reynaldo Rivera

Reynaldo Rivera has been with the company since 2011. He is a native of Coamo, Puerto Rico and graduated from Jose Ramon Davila in the same city. As a Project Manager, he is responsible for supervising employees, attending clients and managing fields and crops. A family man, Rey is married with five children. He is an incredibly hard worker who does not quit until the work is done. We are grateful for his dedication and hard work.

Q. What do you like most about working at 3MG?

A. I enjoy every aspect of my work. I am competitive by nature, but I do not just compete with other people: I compete with myself. It challenges me to be better at what I do.

Q. What three traits define you?

A. Dedicated, responsible and respectful.

Q. What does true leadership mean to you?

A. To teach people to be leaders themselves. Most important is to lead by example.

Q. Do you have a family of your own?

A. Yes, (a wry smile creeps across his face) I am married with five children.

Q. What are your hobbies?

A. I like to garden, and I do lots of exercising and body building.

Q. What is the one thing you cannot live without?

A. Work. I have been working since I was very young, and I don't think I have been without a job since I began.



Maritza Reyes

Maritza Reyes has been the Office Manager at 3MG Caribe for over five years now. She is responsible for various aspects of the day to day operations including accounting, human resources and purchasing, just to name a few. She has a gift for organizing company parties and is a devout Catholic. She is a native of Ponce, Puerto Rico and holds a Master's degree in Finance and Business Administration from the Catholic University of Puerto Rico. We are fortunate to have her with us, and I am grateful to have had the opportunity to know her a little better.

Q. What do you like most about working here?

A. The feeling of family that is here.

Q. What advice would you give to a prospective employee?

A. Do whatever you do because you like it and are passionate about it.

Q. What is your personal philosophy?

A. I try to see the hand of God intervening in everything I do on a daily basis, and I am happy as a result.

Q. How do you define success?

A. Doing things in accordance with God's will.

Q. What are your hobbies?

A. Reading and giving classes.

Q. What is the greatest challenge you have faced in your lifetime?

A. In all of my previous jobs I have started finance departments from zero. It has been a challenge to create them, watch them grow and leave them in good hands so that I might continue to move forward.

Q. If you could be any animal, which animal would you be and why?

A. I would be a Coqui Dorado (Golden Coqui- a frog native to the island that has a distinctive song) that way I could live in the cool air of the rain forest (el Yunque).



Breeding for Better Seed

by Ed Baugartner

When most of our customers think about 3rd Millennium Genetics they think about multiple crops; services like grow-outs, foundation seed production, and hand-pollinated nursery work; nice weather; fast growing seasons and high insect pressure. They are correct. The lesser known side of our business is specialized plant breeding.

Over the years we have developed a proprietary breeding methodology in corn that utilizes the fast environment of Puerto Rico and harnesses all of its various growing season challenges to develop very tough products. The products from this methodology can be labeled as *Durayield™*. This is our trademark for products with high levels of biotic and abiotic stress tolerance. You may have seen the sign at the end of our driveway. It is licensable to customers of our breeding program for use in their marketing program.



National brand on left, Client hybrid on right.

Photo from western IA 6-28-16

Durayield™ is demonstrating its worthiness as a viable new trait package for the future. It utilizes many genes that already exist in corn. The good Lord has provided everything we need in our crops to be successful. No need to insert something extra from another species. *Durayield™* genes have been selected to express themselves when challenged by the environment in which they are grown. This means that they turn on when needed and off when not needed, keeping as much energy as possible focused on grain production. We have high yielding inbred source materials in several backgrounds that contain increased levels of heat, insect, disease and drought tolerance available, via a license, to cross with your materials to shorten the development time and get your program rolling quickly.

Many in agriculture believe that we will not be able to keep up with world climate change and the predicted disasters it will contain. It is our belief that we can actually head off these “disasters” by the extreme stress-breeding segment that is contained in our proprietary breeding methodology.



A stress-breeding nursery at 3rd Millennium Genetics

We need to change how we think about plant breeding to achieve this goal. We also need to re-think where we actually breed our crops to maximize exposure to future stresses. Our current model in the seed industry of plant breeding requires that the crop must be bred where it is grown. If that is the case, we will never be ahead of climate change due to the time it takes to develop new products. Our opinion is that that we need to breed new seed products where we can apply today all of the stresses that will be needed in the future. We can ensure adaptability by properly testing new products where they are to be grown. By starting with 3rd Millennium Genetics today, you can have *Durayield™* inbreds in three years to be tested in your program and have commercial products being sold in six years. We also believe that our proprietary breeding methodology is transferable to other crops. We are also seeing positive advancements in other crops with which we are working.

May you each have an enjoyable summer, and we will see you this winter. God Bless!



2016: Domination

by Wade Roemeling

I love it when a plan comes together. When the plan comes together feelings of accomplishment and confirmation follow. Accomplishment because the goal was achieved, and confirmation because the tough decisions that were made turned out to be the correct decisions. 3MG North had a plan come together in the spring of 2016.

After a very rough 2015 planting (which felt like it ended just before we fired up the combines) we knew that we needed to make some changes. A plan needed to be hatched. Compounding factors put us behind the 8 ball all season in 2015: larger locations, greater distances, larger nurseries and ICBs, wet weather. We knew we needed to be more agile and flexible. The only true way to improve our situation was to include equipment in our plan.



Our plan became reality on April 26, 2016, the day our new equipment was delivered. Yes, I know that April 26th may be rather late to start getting planting equipment ready, but we like our plans to cook for a little while. We already had two yield trial locations planted! We were both agile and flexible! What happened over the next couple of weeks will be very hard to top: two planting crews planting like crazy, but feeling more relaxed and comfortable than any previous year. Yield trials being planted at the same time – in two different states! It was a dream come true, a plan realized.

After the last seed went in the ground (sorghum, by the way) on June 6th, everyone still had energy, and morale was great. Well, as great as it can be considering the grind of spring. We were able to move into our next projects less beaten than in 2015. Spring 2016 was very refreshing. I will savor it because it may not happen again for a while, as no two spring seasons are the same. This last one was a beauty.

I am also a huge equipment guy so I will try to make this quick...

The planter is an Almaco 4 Row Seed Pro 360, and the tractor is a John Deere 6130R, both GPS controlled. The level of accuracy and precision is something to behold. Both pieces work flawlessly. A large “Thank You” to the folks at Almaco and the good people at Haug Implement for helping us bring our plan together.



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We thank our staff at all our locations for
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of the photographs used on our articles.
Keep on contributing!

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a 3rd Millennium Genetics LLC Publication

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Established in 2005, 3rd Millennium Genetics is a multi-faceted company that is dedicated to providing our customers with improved genetic alternatives through diverse products and excellent service programs. We now have two locations that enable us to take advantage of distinct climates and environmental factors to offer a wide range of services that produce better products and more in-depth research results. We take pride in offering our customers the highest quality products and superior service required to make your projects successful, sustainable and productive.