GENETIC ALTERNATIVES

BMG

YOUR NEWSLETTER ABOUT THE LATEST ON SEED RESEARCH

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We have certainly had our challenges the past two years at 3rd Millennium Genetics between the slow down in regulated trait work due to uncertainty of China approving new traits, industry merger mania reducing our normal seasonal contract load, internal technology integration, company procedural updates, personnel changes, insect pressure, and poor planting weather in PR. You have two choices when issues hit you between the eyes: You can quit and walk away, or you can stay and engage in battle against the challenges. We to continue to engage the issues daily and fight the good fight in the hope that it will be worth it.

I can truly say that it has been worth staying and fighting. The response by all of our employees to Dianne's leadership on the farm this season, making sure that all of the changes we made were implemented properly, has been super. It has come with great effort by all involved, and that has been well worth it. It has changed the way our employees view their job. They realize how much impact small adjustments in practices can make to deliver a much better seed production service. Our customers see the changes not only in the fields but in the personnel, too. The smiles and cheery attitude are there because they know that this is such an improvement over the previous years. Our improvement went well beyond anything we have delivered in the past. I am proud of the effort and results from our staff this season. What makes this even more exciting to me is the group was able to deliver in a less than ideal planting season, which made spraying for pests and weeds in the fields that were planted even more difficult than usual.



Fighting the Good Fight (Continued)

I need to recognize our long-term customers here too. They stuck with us when we had the disappointing results in corn last season and are reaping the benefits this year. They also convinced some newer customers to hang in there with us, that we would figure out what went wrong and fix it. That is the type of trust and confidence that we strive to have in our customer relationships.

We are visiting with all of the customers on the farm this year to demonstrate to them the changes we have made in tracking our activities in their fields in addition to how we post re-entry times in the field. We now have what we call RE-Entry TV. It automatically posts and removes fields real time from the restricted entry lists due to pesticide application. All regular employees can check their phones, too, for a particular field status.

I would like to show a sample of a field report sent to a customer recently:



To read the attached report please click the above image or visit us at: http://www.3mgpr.com/corn-field-report/

These reports are still a work in progress but our customers really have embraced this new reporting system. They accumulate information throughout the growing season of the project to maintain a log of actions. I like them because it keeps us accountable to the customer and to the care of the field. You have seen me write about our internal software, ATS, in the past. These reports are made possible because of it. It consolidates information from three separate file cabinets for me into one place. So now if you call and ask about what happened in a field, I can tell you in a short time what we did and when we did it.

I was visiting with Dianne recently and we were discussing how long it has been since we saw corn that looked like this – NO insect damage. We are still pinching ourselves to make sure this is not a dream. I am not going pretend that we can do this every time, but we now know that this is possible and will strive for this continually. I don't think anyone is happier than Rey. He developed the solution for the earworms. He takes ear set personally. He is taking regular pictures of harvested corn and sending them to me in his excitement.



We had a big mountain to climb last year to improve, and I thank God for the opportunity we had to climb it. It was a huge challenge that was answered by all employees of 3rd Millennium Genetics. We all have ownership in our future and it is our hope to work our way back into yours.

EMPLOYEE SPOTLIGH

Raechel Baumgartner



Raechel Baumgartner Delgado has worked with the company since its inception in 2005. She was there with her mother and sisters when the very first field at 3MG needed hand weeding. She has been actively involved in the growing of 3MG ever since. She worked summers through the remainder of her undergraduate degree and then took some time off in 2007 to complete her

Master's degree in Plant Breeding at Iowa State University. She has been a full time employee since August 2009. Her title has recently changed from First Science Officer to Corn Librarian. Raechel is one smart cookie and her passion for science and for her work make her a valuable asset to our company. One of the things we enjoy about working with Raechel is her sense of humor- which is often evident in her contributions to our newsletters. She is one of the integral components of our company, and we are fortunate to work with and learn from her.

Q. What do you like most about working here?

A. The people. The people that I get to work with as well as interact with.

Q. What has been your favorite project while working at 3MG?

A. Oh Boy... um. I Love the breeding work. I love making selections. My dad likes starting the breeding families, but I love finishing them. I love learning the details that make each inbred unique.

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

A. Work hard, ask questions when you need to, even when you don't, haha. Just care about what you are doing.

Q. What are your hobbies?

A. I enjoy sewing, but my machine has not been turned on in about two years. I like cooking. I love making pies. But my main hobby for the last year was wedding planning.

Q. Where do you see yourself in five years?

A. Aww man... you know, you never know. If you had asked me 5 years ago, I would have never thought I would be where I am. I have found that you can plan things, but life often works out differently and better than you could have planned. The journey isn't always easy though. Ideally, I would like to be working and have a couple of kids, but who knows.

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

A. I would be a Texan road runner because they're fast, fun to watch, and they kill rattle snakes.

Wilfredo Santiago



Wilfredo Santiago has worked with 3MG for multiple seasons as a field worker. He is a native of the Santa Isabel beachfront neighborhood called Bo. Playa. A graduate of Elvira Colon High school he is also a licensed barber who studied at the school Banco de Comercio in Ponce, Puerto Rico. He is married with one son, Jayden Santiago Velez who is 3 years old. Wilfredo is one of the most peaceful, hardworking individuals you will meet. I can honestly say that I have never seen him angry. He has worked in both Puerto Rico and Minnesota. He is an asset to our company not only because of his work ethic but also his calm demeanor.

Q. What do you like most about working here?

A. I like doing pollinations. I like to watch the development of one kernel of corn into a whole cob in the context of this process.

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

A. Take advantage of the opportunities when they are presented to you in the company. Learn about more than one crop. Learn about soy, sunflowers and sorghum and not just corn so you can develop your skills.

Q. What are your hobbies?

- A. Fishing- in the sea
- Q. Where do you see yourself in five years?
- A. I would like to continue to develop my skillset so that I might grow within the company.

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

A. I would be a dog. They are always protective of their humans, property and even the farms they work on. They are also loyal and friendly.

Who Will Stop the Rain?



There are many challenges in agriculture and we have our share in Puerto Rico. I would like to cover problem solving because there never seems to be a shortage of problems in farming. Yet in each problem presented, there is an opportunity: an opportunity for learning, for growth, and for humor. This last fall we had an interesting problem in Puerto Rico. It would NOT stop raining. Unlike a broken irrigation valve or a planter that needs to be realigned, the solution to this problem was out of our hands. It is not like you can plead your case to Mother Nature and she will acquiesce. No, you have to suck it up and work around it. On the other hand, you can't plant with water pooling in the fields either. Sometimes you just have to laugh, shake your fist at the sky, and wait for the rain to subside. You laugh to stave off insanity. You laugh because there is no other recourse. You laugh because you have been duly re-informed of the fact that we are but small parts of the greater ecological system.

We usually begin our planting season in September in Puerto Rico. This year was a little different. This year we were impeded by an onslaught of torrential downpours that would not stop. It rained all of October and half of November. You could hear a collective prayer audibly rising from everyone on the farm. By the beginning of November, we halfway expected animals to start lining up in twos. Then the sun would come out. The skies showed promise of dry days and planting ahead. It was short lived. Sometimes by late afternoon the skies would have darkened and the fields began pooling with water again. This went on for weeks. Finally, in the middle of the month, the rains subsided.

I took the opportunity to speak with Dianne Ortiz who is our Assistant Manager on the Puerto Rico farm to see how she dealt with the problem, and this is what she said: "It was, at times, comical looking back. The staff and I would see the sun come out and run out to the fields in hopes of getting some planting done only to see dark clouds looming on the horizon. I would be in denial that it was going to rain. We would work through it hoping that the rains would pass quickly until it would rain too hard for us to continue our tasks. But any work that we had completed would be ruined. We would look at one another and laugh to keep from crying."

When the sun finally stayed long enough to dry out the fields, the staff at 3MG Caribe went into overdrive. The preparation for planting 700 acres had been set back weeks in our planting schedule. The foiled attempts at field preparation in the previous months made this laborintensive task seem even more daunting at times. The 3MG staff pulled together though and made it happen. Through hard work and the fortitude of our dedicated work force we were able to get every field planted by the beginning of January. In speaking with Dianne I could hear her relax as she said, "We are all caught up, and the fields look great. I am happy to say that we got everything done, and despite the delays we are still on track. We were able to control the insects, and the quality of the seed we have is very good. I am no longer stressed out."

Every farm has a tale like this one. It is part of the very fabric of the industry. The question is how did the farm deal with it? How do you work around issues that one can do nothing to prevent? How do you maintain your sense of humor? How do you endure? Teamwork. When you have a dedicated staff, strong leadership, and the right tools you can weather any storm- or storms as the case may be.



Evaluations and Innovations

by Raechel Baumgartner

I remember sitting in a high school English class when the teacher, one of my favorites, told a story about a pot roast. She talked about a daughter learning to make a pot roast from her mother, how the mother cut the ends off the roast and then lay them on top. When questioned about this step, the mother replied, "That's how my mother taught me." The daughter went to her grandmother and asked, "Why do you cut the ends off of the roast and lay them on top?" The grandmother replied again, "That's how my mother taught me." The daughter went to her great-grandmother, and when asked the same question, the great-grandmother replied, "Because my pan was too small to hold the whole roast." This story has stuck with me through the years as a reminder to always question, to ask why.

At 3MG—all three 3MGs—we strive to be efficient, to do a highquality job with the appropriate resources. The thing about efficiency, though, is that it is a constantly moving target. As soon as a project changes or equipment or personnel, the parameters of maximum efficiency change. You cannot just design the ultimate procedure or protocol to complete a task, and then leave it, or "set it and forget it", as awesome as that would be. If you do, you run the risk of losing your efficiency in the future: you might find yourself unnecessarily cutting off the ends of the roast after having replaced the too-small pan just because of habit. That kind of waste in effort is something that as a small business, we cannot afford. (And we would rather be home with our families than doing unnecessary work.)

To try to improve our efficiency, each year everything we do is essentially thrown on a large (imaginary) table with the looming question, "How can we do this better?" And then we run through scenarios about possible changes. We question everything: how to count seed, how to set up for planting, how to pollinate (including how to staple the tassel bags), even how we select in our breeding nurseries. Nothing is safe from questioning. We might just come up with next new best thing. (Have you seen our planting rods? They. Are. Awesome.) We may also decide in the end that no change is best, but we still questioned everything.

You could make the argument that if we are constantly reevaluating, we cannot move forward, and you would be right-if we were indecisive. However, we are not. We are not constantly changing our minds, and we do trust our decisions. If we are trying something new, we have a few people pilot the new method before it is adopted on a wide scale. If it works, we start the changeover. If it does not, we continue as-is. If it is a big change we know is going to be hard but will benefit us in the end, we suck it up and push Never reevaluating how something is done leads to through. stagnation. Changing everything all the time and not trusting yourself leads to indecisiveness and chaos. They key is finding the balance. In many of our conversations, I usually defend the status quo, earning me a bit of a reputation as anti-change, which is not entirely true. I just like to make sure we have a good reason to change a working process. Change is hard, but a lot of the time change is good, particularly when it is thought out and planned.

Reevaluating keeps us questioning. Questioning keeps us innovating. Innovating keeps us efficient and still in business another day.



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