



Jennifer Yates
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Chesterfield, MO
Women in Science Column – May 2018

Highlighting Women in Ag Science (CSSA) Featuring Dr. Jennifer Yates

Interview conducted by Stella Salvo

One of the ways the Women in Science Committee is highlighting women in our societies is to feature the career and share the perspectives of women in our workplace who have inspired us and showed us their journey. I have chosen to interview Jennifer Yates, a leader in plant breeding and an advocate for Women in STEM careers. In addition to the accolades of career accomplishments, Jennifer has led two Women's Networks at Monsanto and while contributing to advancing the science in plant breeding. An Early Career Award recipient by the National Association of Plant Breeders (NAPB), Jennifer served as a Board member of the Agronomic Science Foundation, Vice Chair of the NAPB Membership Committee and has served on the Commercial Soybean Breeders Executive Board.

Where did you grow up?

JY: I grew up all over the place. My dad was in the Army. I was born in Virginia, and then we lived in Germany, Kansas, Georgia, Virginia, Alabama (a lot in the southeast). We also lived in the Netherlands for three years.

What got you into crop science?

JY: I liked genetics. When I was a freshman in college, there was a genetics lab offering to hire students. They happened to work with soybean transformations and particle bombardment. I knew nothing about that at the time and, as I learned more about it, I was really fascinated by the application of that to solve real world problems.

What is your role today and what was your career path like?

JY: I am the Wheat Breeding Lead at Monsanto. I have breeders on my team that work in four different market classes of wheat across the US. I had an unusual start there because I thought at that time I wanted to go back into academia and be a professor of plant breeding and so, I told them during this interview that I only wanted to stay for a couple of years and then go back to the University. They brought me in under an experienced plant breeder. I was also involved with people outside of the research station. That experience and exposure led to my next role, 5 years later, leading the Soybean Pathology Group. We reshuffled again and then I stopped doing pathology altogether and started leading Wheat Breeding.

What are the career accomplishments that you are most proud of?

JY: When we transitioned from Roundup Ready 1 to Roundup Ready 2 Yield, I created a class of lines that were indeterminate maturity group 5's. Usually in soybean, group 5's are determinate and so these indeterminate group 5's were a little bit different. They had a different growth habit and presented some new opportunities for our business. We were able to grow market share and expand our business because of it. I'm really proud of that. The other thing I'm proud of is the idea of pathogen pressure. We worked very hard to develop a platform to assess that for soybean and it is an effort that is ongoing today.

How has the science or the objectives in plant breeding changed in your career? What are greatest challenges today?

JY: I think that as technology evolves, we have an ability to produce huge amounts of data. The challenge is digesting the data in a way that gives you insights, and then turning those actual insights into what you can do differently or how you can best get a return on investment through genetic gain. I think that's the biggest challenge. Some of the ways that I have seen plant breeding evolve to meet this challenge is instead of asking breeders to handle all activities from crossing to variety release, now they handle only stages up to first two years of yield trials or only material that is going into broad yield testing.

What would be the most important skill you would suggest for students studying plant breeding and genetics today?

JY: Take a lot of data science or data wrangling classes and understand that roles are more specialized. When I came out of school, you were a breeder and you handled the whole pipeline. You wore many different hats. Now you can still experience that through different roles, but not all at once. Gain a better understanding how breeding is done in order to better know where you would fit. This is in industry more so than academia.

What are 3 things that you would share with the men and women in the tri-societies that are the most impactful for supporting and encouraging women in leadership roles?

JY: Research has shown that diversity gets you better business results (Phillips, 2014). But the reason why we don't have it at times is that it's hard to get. It takes a long time to get to a diversity of perspectives (Lencioni, 2018). It's much faster and easier to have more people in a room with a lot of "yes's" to everything. It's a lot faster to make decisions and move forward than when you have people at the table to challenge or argue. It takes a lot of time to resolve that, it can be painful in a way to do that. If you really want diversity in a company or university, you have to be aware that it takes time and work, it's not going to happen if unless you're intentional about it.

Another thing is that if you look at a Board of Directors and see one or two women, we tend to think well "whoa, it looks like we have women represented, that's progress." I think we need to stop doing that because women are 51% of the population and if you look at university graduates, they are more than 50% in the sciences now, so really any level of leadership we have should start reflecting our population.

I think we need to have a better understanding how our pipeline of women who are coming in through the ranks, how and why it's thinning out. We need to get curious about that and think about it like a science. A recent report shows that across of all stages of leadership, women are leaving (McKinsey &

Company, 2017). We need to understand why. Are there things that we can do to keep women in the work force early and then keep them as they progress in their careers? Can we make sure that they are getting proper leadership training? If we only promote certain types of leadership styles then we are forever going to be short in women. We tend to have a predominance of command and control leadership style and, it is effective. It gets things done. Other styles can be effective too, but we sort of have a biased, an unconscious biased, against them.

Mentoring is so important for career development. How do you identify a good mentor and what are some of the characteristics of impactful mentoring?

JY: We can't do it on our own. We learn and grow together. One thing that has always worked well for me is to look to people's style. If I heard them talk and I really like the way they articulated things, or how they expressed their opinion, if I thought that was an area that I wanted to grow, I would try to reach out to them. I think it starts with self-awareness. Where do you feel are the opportunities for improvement in your own development, and what are the resources or people who can help you bridge those gaps? I think in successful mentoring, there has to be some level of chemistry, some level of knowing that their style is compatible to yours and that you can learn from them.

References:

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