



## How simple technology can help feed the world

02/21/2014 01:25:00 PM  
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In 1986, Johnny Georges and his father invented a way to help citrus growers protect young trees from frost.

Their idea was the Tree T Pee, a simple, inverted cone-shaped piece of recycled plastic about two feet tall that is positioned around the base of young trees.

After more than a decade of having his product on the market, Georges realized the Tree T Pee could also help growers irrigate more efficiently. This would translate into dramatic savings in water, energy, fertilizer and herbicide costs.

Today, the Tree T Pee has not only helped citrus farmers in Georges' home state of Florida protect young trees from freezing temperatures, but it has also planted a seed to revolutionize agricultural water conservation across the country and around the world.

Innovations like this will prove critical in helping the global produce industry face an immense challenge — the need to increase food production with fewer resources while also bolstering consumer confidence in the safety and quality of fresh produce.

Technology holds the key to helping us feed the world through innovation. But in order to reap the rewards, our industry has to make the right connections to identify and apply forward-thinking technologies.

As Georges' story demonstrates, technical innovation goes beyond the digital realm. It's also using existing tools or resources in new ways to help reduce input costs like energy, water, fertilizer and labor, and deliver better results in the process.

After collecting feedback on technology needs from members of PMA's Produce Safety, Science and Technology Committee, the Supply Chain Efficiencies Committee and other industry thought leaders, we've realized that in addition to production input management, technical advances in food safety detection and data science are also of particular importance to our industry's future.

That's why all three of these topics lay the foundation for PMA's expanded year-round resources that we'll be delivering under the Science and Technology area of our new strategic plan.

Take food safety detection, for example. We know improved testing technologies are emerging and taking on new roles like testing allergens, detecting pathogens, and even product integrity.

Now consider the possibilities when we're able to learn about the future impact of these testing technologies and the most effective applications for your businesses.

Then there's the area of data science. Every day you're collecting data from a number of areas including consumption patterns, food safety audits, weather patterns, market analysis, environmental tests and more.

There are novel uses for this information that can reduce costs and make predictions for future resources and sales, like sourcing models — predicting what customers need, when they need it.

Imagine how this could innovate your business.

As for production input management technologies, let's look again at the Tree T Pee's success. This simple innovation acts as a water containment system, directing all irrigation water and liquid fertilizer directly to the roots below the tree. Instead of using 10,000 gallons of water per tree per year without the Tree T Pee, growers using the system use only 800 gallons per tree per year.

Imagine what that could mean for growers in California this year who are facing yet another damaging drought. In addition to water conservations, growers also are seeing a 30% increase in the growth of new trees, letting the farmer realize a much faster "return to the ranch."

Like Georges, we too believe in the importance of helping industry increase profitability by providing greater access to information on cost-controlling advancements and how best to put these advancements to use in each unique operation.

Johnny Georges wasn't going out on a limb with his idea to use the Tree T Pee for water conservation. He grew up in the citrus industry. He worked with farmers in the irrigation business for 29 years.

He talked with growers and understood their concerns. Swap out a few details and everyone reading this is Johnny Georges, whose real-world experience, knowledge, expertise and contacts can solve challenges facing the produce industry.

In order to feed the world, we have to plant the seed. I believe that when you have a forum for sharing and connecting to detailed technical information, translating complex issues, and applying industry context, you'll find fertile ground for identifying — and perhaps even inventing — forward-thinking technologies to operate your business more effectively and drive global consumption of fresh fruits and vegetables.

What innovations in technology are you holding on to?

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**What's your take? Leave a comment and tell us your opinion.**