

# Plant Health — The Journey and the Reward

**For the past 10 years**, I have owned an Iowa heirloom tomato farm called Butcher Crick Farms (and sometimes referred to as "my bad habit"). Today, my full-time career is the biologicals team lead at BASF, focused on nurturing our biologicals

offerings and working with growers across the United States. When GPN asked me to provide a 40 under 40 perspective, I knew I wanted to talk about plant health: what is it, where are we as an industry, and where are we headed? As both a grower and a manufacturer (isn't life funny?), I will share a few viewpoints that I believe drive a successful plant health program.

## DEFINITION OF PLANT HEALTH

When we think of the term "plant health," what exactly does this mean? Is it a marketing term, like the one we see in our grocery store that says "natural," or is it more formal, like the Environmental Protection Agency (EPA) authorized label language

for BASF's Intrinsic brand fungicide portfolio? The formal definition of plant health for BASF supported by research includes disease control and specific benefits in the plant, like dense root growth and greater tolerance to stressors. Yes, you read that right — plant health is on the EPA label!

Plant health management is both science and practice; understanding and managing the biotic and abiotic factors that can prevent plants from achieving their full potential. On my farm, this means elements like water and sun all while managing *Manduca quinquemaculata* (aka the tomato hornworm, a pest that shares lineage with the devil himself).

Though the system is familiar to me in the practice of agriculture, approaching plant health management from a scientific standpoint was relatively new. To me, the definition of plant health relates to a process: from planning to cultivation to delivering healthy, high-quality plants to the consumer or end-user.

## FAIL TO PLAN, PLAN TO FAIL

Does anyone have that person who comes to a meeting and doesn't bring a notebook? (Dog must have eaten it.) When they walk in the room, I think: "How can you remember all of this?!" I want to capture ideas and actions to implement and avoid the need to meet again — logical, no?

Documentation and information exchange are two key elements for success in planning and execution. The same is true for monitoring plant health. Collecting, analyzing and managing your plant health documentation annually, and

perhaps even generationally, might feel like you are next to the tortoise at times, but remember what happened to the hare.

## IT TAKES A VILLAGE

Sometimes we as farmers and growers appreciate the quiet, peaceful moments walking the crop. There is something about the simple act of observing growth that is empowering and fulfilling. When it comes to plant health on a commercial scale, we rely heavily on others to help us achieve the best crops to send to the market. The success of my farm is attributed to my family, friends and customers who all provide insights to grow the business. Success with a manufacturer relies on a similar structure: the growers, colleagues in the field and a network of professionals who support this industry. The village is there to support and to offer a scaffold for new tools to help you manage plant health. Research. Ask questions. Implement. Repeat.

## SCOUTING NOT POUTING

Put another way, preventive measures are more cost effective than reactions. You know the drill: get a dedicated person for this role (and no, watering at the same time doesn't count). Give them the tools they need: they can call our reps, their distributor rep or others in the industry to obtain a lens, sticky cards or a solid recommendation. Meet with your team on a regular basis to discuss results, thresholds and strategies. This is a key part of your pest management program, unless "spray and pray" is still working for you. [Note: if you think it is, please call me.]

## KNOWING YOUR AUDIENCE

Who is our consumer? Knowing the drivers for the audience is critical to defining a plant health management plan. As growers, we have unique perspectives on production methods for specific situations. With a passion for genetic diversity, I chose to raise heirloom tomatoes knowing they would require me to have a different production plan and a different standard for plant health. Someone who manages a public or city garden would need an advanced weed management program. Another grower may have zero tolerance for certain insect pests. We customize our programs to meet our goals.

I want to leave you with a thought. When the sweat is in my eyes, there is another acre of heirloom tomatoes to be harvested by hand, and the email notifications on my computer look like a slot machine on the strip, I remind myself: "Comfort is the enemy of progress." (P.T. Barnum). Our approach to growing evolves, so we can capture the best of plant health — that progress is worth the effort. [gpn](#)



Jennie Smith is biologicals team lead with BASF and a member of GPN's 40 Under 40 Class of 2018. She can be reached at [jennie.smith@basf.com](mailto:jennie.smith@basf.com).