

Soy Sustainability – Buzzword or Reality? By Jennie Schmidt, MS, RD Schmidt Farms Inc

There are many buzzwords floating around agriculture and social media. Probably one of the most tossed around words is "sustainability," which is used interchangeably with "conservation," "regenerative," "climate-friendly," "climate-smart," and an assortment of other descriptors related to American farming practices. But what is a consumer to know or understand about what those terms mean and how they are used by U.S. farm families such as mine?

American farming techniques have evolved over the decades to incorporate the best techniques, blending modern and traditional practices. Ensuring the longevity of our land for future generations is at the heart of every decision we make. On our family farm, we employ sustainable soybean growing practices for the benefit of our farm and our community through cleaner soil, water, and air, and nourishing food.

Modern Practices

Modern farming practices equate to a new way of agriculture; it's not your grandfather's farm anymore. Today's farm family utilizes technology our grandparents probably never even fathomed.

We write **Nutrient Management Plans**, which are data-driven fertilizer applications based on both the nutrients available in the soil as determined through soil analysis, and the nutrient needs of the soybean crop we are growing. Our fertilizer spreaders can vary the rate of application across a field, applying less in areas where the soil has more nutrients available and more in areas of the field that have fewer nutrients. This same equipment has auto-shutoff nozzles or valves to eliminate overlap and over-applying of fertilizer.

Our equipment is **GPS guided** to allow us to maximize the use of our acres while reducing the amount of resources we use on those acres.

We have **variable rate irrigation systems**, allowing us to program our water applications based on the soil type and water demand of the soybeans. An area of very sandy soil will dry faster, and variable rate irrigation allows us to program the system to water a half an inch in that area, whereas the rest of the field with heavier soils may only get 3/10ths of an inch. We can be very precise based on our soybean needs and our soil types in addition to adjusting to what Mother Nature may or may not provide.

Traditional Practices

Some practices from our grandfather remain. On our farm, we have been practicing notill farming – not plowing or working the ground before planting – and using cover crops since the early 1960s.

By not tilling our soil before planting soybeans, we reduce our carbon footprint and chance of soil erosion, while at the same time improving our soil health. Cover crops, which are crops planted in the field after the main crop (e.g., soybeans) is harvested, also help with erosion and soil health. Additionally, they help to increase biodiversity, control pests and diseases, and a host of other benefits.

Farming for the Future

Conservation/sustainability/regenerative farming – whatever term you prefer - focuses on improving our soil, reducing erosion to keep nutrients in place for the soybean crop to use (and out of our local waterways), minimizing carbon footprint, and maintaining the land for future generations. Each decision we make aims to leave our land in better condition for the next generation. It is a philosophy that has been stitched into the DNA of our farm, as well as that of many farm families across the country.

Consumers should know that we value our family and the legacy of our family farm, and the conservation practices that we use to grow soybeans for the value chain not only benefit our farm but also benefit our greater community through cleaner soil, water, and air, and nourishing food.

Jennie Schmidt, MS, RD is part of Schmidt Farms Inc in Sudlersville, Maryland. Together with her brother-in-law, manage a 3rd generation family farm growing grains, vegetables, and wine grapes on the Eastern Shore of Maryland. When she's not on a tractor, Jennie is a state and national agriculture leader having served as the first female board member and first female president of the Maryland Grain Producers Utilization Board. Jennie is the Maryland delegate to the U.S. Grains Council and chairs the Middle East/Africa/South Asia trade advisory team. She is a national and international speaker telling the story food and farming. She is passionate about connecting people with food and farming, emphasizing the importance of global food access and the importance of sustainability in our food supply. Jennie, whose first career was as a Registered Dietitian, holds a BS in Human Nutrition and International Agriculture from UMASS and an MS degree from the University of Delaware in Human Nutrition with a focus on Food and Agricultural Biotechnology.

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