

Q&A

Bringing food companies, farmers together to build a sustainable future



Ryan Sirolli started his career managing the grain, hay and beef operations of a mid-sized Maryland farm. Fourteen years later, he brings that farmer-centric view to his role as Cargill's row crop sustainability manager. We sat down with Ryan to better understand how the company is advancing sustainable agricultural practices.

A lot of companies are setting aggressive sustainability goals. What makes Cargill's work in this arena distinctive?

Farmers come first in our efforts; they are the centerpiece. We know that whatever practices or programs we put in place, they must create value for our farmers, or it's never going to happen. At the same time, we still need to produce tangible outcomes for our customers downstream. That's our challenge, creating win-win-win scenarios for farmers, our food customers and consumers at large. It's a big ask, but we are convinced it's doable and believe we are uniquely positioned to make it happen.

What makes your position so unique?

We sit right in the middle of the supply chain. We work directly with farmers all over the world to source the raw materials we need. Then we turn around and supply ingredients to food and

beverage manufacturers – big and small. We're the link between these two groups and can help find ways to deliver value to farmers and food makers alike. The other critical factor we bring is scale. We are the largest agribusiness company in the world, and we can leverage the scope and size of our operations to drive meaningful change.

What are some of the environmental issues you're targeting?

Our primary focus points in row crops are corn, wheat and soy – the big three crops for Cargill, but we also engage in other crops, including canola, oats, barley and peas – really anything that is grown in fields at scale. Farmers do an amazing job of producing these crops. We've seen dramatic improvements in yield through the years, but there are also some challenges. Water use is one. Globally, 70 percent of all water used goes for food and agriculture production.

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Some of these crops are produced in water-stressed areas, where we are depleting water faster than it's being replenished. That's a problem, but we can do things through our management practices that help minimize the water used for agriculture.

Water quality is another area of concern. Farmers use nitrogen and phosphorus to improve crop yields, but in wetter regions especially, those nutrients sometimes run off the fields, negatively impacting water quality downstream. The good news is that many of the same practices that help to improve water use efficiency will also benefit water quality.

We're also working to reduce greenhouse gas emissions associated with crop production. Row crops are significant contributors to greenhouse gas emissions, but with a few changes to our production practices, we can actually draw carbon out of the atmosphere and put it back into the soil.

Can you give an example of the kind of production changes you're suggesting?

Corn is the biggest crop by acreage grown in the U.S., with an estimated 90 million acres planted in 2018. The impact from growing corn has lessened

over the last forty or more years per unit of output. However, there are still opportunities for continuous improvement that can make a positive impact.

One way we're doing it that is by supporting the incorporation of cover crops into traditional crop rotations. The standard practice for many farmers is to plant soybeans one year, followed by corn the next. Planting a cover crop helps prevent soil erosion and, depending on the crop, can even add nutrients back into the soil.

One of my favorite examples is where we can bring yellow peas into the equation. In areas with longer growing seasons, we can plant peas in March, harvest them in June, then go back with soybeans and harvest them in the fall. The following spring, we plant corn and harvest it in the fall. With this crop rotation plan, we grow and harvest three crops in the space of two years. Right away, we've earned income from an extra crop, but on top of that, we have all the soil health benefits that come with planting a cover crop – from less soil erosion, to improved water-holding capacity. And, since peas put nitrogen back into the soil, we use less nitrogen fertilizer to grow corn the next year, saving farmers' input costs while improving water quality.



How receptive are farmers to these kinds of changes?

Farmers are the key to success, so one of the things we do is look for solutions that offer multiple benefits. Soil health is a great example, and it's one that farmers can understand and get behind. If we do things that deliver better soil health, then we're also delivering all kinds of other benefits. Healthier soil increases its water-holding capacity, making it more drought-resilient. There's less soil erosion and nutrient loss. It holds more organic carbon and needs less fertilizer. All those benefits translate into higher yields and lower input costs, which is why improving soil health is good for the farm and for the environment.

What role do food companies play in your sustainability efforts?

They are very supportive of our work in this space. A lot of our customers are setting sustainability targets focused on decreasing greenhouse gas emissions, improving water quality and lowering water use. We even have some customers with specific soil health goals. Sustainable sourcing is important to them, but very few of our customers touch farmers directly. Because we sit at the intersection of farmers and food customers, we can help find solutions that address our customers' concerns but are also in-line with farmers' needs.

That sounds great, but what's the benefit for Cargill?

We've been in business for more than 150 years; a remarkable achievement. But if we are going to stay in business for another 150 years, we must address these issues. We are the world's largest agribusiness, and at the end of the day, we are completely dependent on agriculture. If we are going to continue to feed the world, we must build more resiliency into the production system.

Developing economically viable, sustainable systems is win for all of us – farmers, food customers, consumers, and Cargill too. Achieving sustainability goals delivers value for us all.