



## Fertilizing Sustainable Farms

Walmart and General Mills want to reduce the carbon footprint of commodities.

BY CHRIS CLAYTON

Food retailers want farmers to implement production practices that meet certain environmental benchmarks. Fertilizer use is at the top of their list. PHOTO: KURT LAWTON

**M**ore farmers are going to be faced with documenting their environmental practices and reducing fertilizer usage when selling to certain markets.

That notice comes from Laura Sands, a consultant with Vela Environmental. She spoke recently at the DTN/*The Progressive Farmer* Ag Summit about growing environmental traceability pressures farmers will face in the near future. Those pressures will largely be driven by major retailers.

Sands says farmers will have to begin thinking about issues, such as sustainability risk management, adding that Walmart is already sending out questionnaires to suppliers. Those questionnaires request information about environmental performance and the sourcing of basic commodities.

**MORE QUESTIONS. MORE DEMANDS.** “Right now, you might not be getting questions, but the people you sell to are having to answer these questions,” Sands says.

Companies like Unilever are vowing that soybeans and soy oil are sustainably sourced. And the move extends to the livestock industry, where some in the U.S. dairy industry want to reduce their carbon footprint by 25% by 2020.

The concerns go beyond fertilizer. Water sustainability is another factor major food companies are starting to consider when sourcing grains and oilseeds.

Such supply-chain initiatives can have wide-ranging effects, particularly when the country’s largest grocer, Walmart, is becoming more aggressive in its sustainability efforts. Walmart announced last September it’s now requiring food companies that use commodity grains to develop a “fertilizer optimization plan.” That plan would outline goals to reduce fertilizer usage. Walmart has a goal that the retailer and its suppliers will reduce fertilizer use on 14 million acres in the U.S. by 2020.

**A BIG PROMISE.** Walmart’s 14-million-acre figure is based on several pilot programs in which the company is already engaged. Brittni Furrow, a senior manager for sustainability initiatives at Walmart, focuses specifically on the company’s food and agriculture. She says Walmart began examining its supply chain and found nitrous oxide from fertilizer was one of the largest opportunities to lower overall emissions from suppliers.

“That is why it has been a real focal point for us over the last couple of years,” Furrow says. ▶



PHOTOS: JIM PATRICO

**Walmart has announced a goal of reducing fertilizer use on 14 million acres in the U.S. by 2020.**

**WALMART IN THE TURNROW.** Working with commodities as a retailer is challenging

because Walmart is so far removed from the farmers who make cropping decisions. The commodity supply chain also is largely untraceable.

One strategy the retailer is using is to work to connect with regional and local experts whom farmers know and respect. The company acknowledges it's difficult to reach out directly to those making management decisions on the farm at the day-to-day level.

"How we engage in that sector of the supply chain is the thing we really have to figure out," Furrow says.

Walmart actually has been exploring different issues pertaining to agriculture. Corn rose to the top, but several of their beta projects touch on other practices and commodities, as well. Furrow says Walmart is looking at issues like water usage and no-till crop production.

"We're now looking at [2014] and how we can look at resilient sourcing across commodities," Furrow says.

**ENVIRONMENTAL GROUPS PUSHING RETAILERS.** Walmart began its drive on fertilizer by working with groups like the Environmental Defense Fund (EDF). Jenny Ahlen works for EDF in Bentonville, Ark., where Walmart is headquartered.

1 ton of nitrous oxide is the equivalent of 300 tons of carbon dioxide. Agriculture accounts for nearly 70% of nitrous oxide emissions, according to EPA.

"When you look at food more closely, fertilizer, particularly nitrogen fertilizer, produces some really powerful greenhouse gases," Ahlen says.

Walmart works with The Sustainability Consortium to survey suppliers, as well as Field To Market to look at ways farmers can reduce their environmental footprint.



**"...the fertilizer piece has been a great learning opportunity for us," says Walmart senior manager Brittni Furrow.**

Ahlen says EDF and other groups pushed Walmart to examine its supply chain for environmental impacts. The chain had largely focused its efficiency and climate efforts on its individual stores up until that point.

"They hadn't really addressed their supply chain, which is where we think 90% of their impact actually happens," Ahlen says.

Walmart set a goal to reduce 20 million tons of greenhouse gas emissions by 2015. In studying the issue, the company found fertilizer to be a good focal point because about 50% of Walmart sales come from food.

Nitrous oxide emissions from commodity corn stuck out because

**MAJOR FOOD COMPANIES STEP UP.**

Walmart is not alone in its goal to see the carbon footprint of agriculture reduced. Major food manufacturer General Mills determined two-thirds of its carbon footprint and 99% of its water usage is tied to raw materials. The company is a well-known processor of breakfast cereals and other products.

"Working on sourcing is a really critical thing for us if we want to make sure our business model operates affordably," says

Steve Peterson, head of sustainability sourcing for General Mills.

The company has committed to be sustainably sourced on 10 major commodities that represent more than 50% of its global purchases. About half of those commodities come from larger commercial North American farmers: wheat, oats, dry mill corn, sugar beets and dairy. The rest of those commodities come from small-scale farmers globally.

General Mills has been a member of the agricultural ►



industry group Field To Market since its inception. It has helped develop the continuous improvement approach General Mills is applying to those major commodities in the U.S. by 2020.

“We’re all in there together, including our customer, Walmart,” says Peterson, who is now vice chairman of Field To Market’s board ([www.fieldtomarket.org](http://www.fieldtomarket.org)).

**DEVELOP BASELINE.** Peterson says General Mills is looking for “the sweet spot” when it comes to reducing inputs on the farm level while not creating a separate, segregated supply chain that would drive up costs for everyone. The goal is to demonstrate a baseline of inputs to produce a crop and then improve from that baseline over time.

“That, in our mind, is enough to make a claim that whatever we, or any other Field To Market member, source, would be deemed sustainable,” Peterson says.

General Mills is starting its sustainability work with a select group of farmers in the Snake River Valley basin of Idaho. The company chose Idaho because that’s the region most vertically integrated for commodity purchases, and it’s the only place General Mills owns the grain elevators.

The company selected a group of representative farmers throughout the valley and then worked together to create a baseline for how the farmers grow their crops regarding inputs.

Over the last year, Walmart also has started to

establish more relationships with major commodity groups to

help spread the message directly to farmers. Walmart’s sustainability team is talking with groups, such as the National Corn Growers Association, and participating in some of their events, as well as those of state soybean associations and some animal-agriculture groups.

“Specifically, the fertilizer piece has been a great learning opportunity for us,” Furrow says. “Ultimately, what it comes down to is the fact that for farmers to move forward in that direction, you have to have that trusted resource, such as the agronomist, the crop advisers and working through some of the producer associations and NGOs [nongovernmental organizations].”

**SINGLE OUT PRODUCTS.** Walmart wants to work with more suppliers and major brands to scale up these initiatives and make them more mainstream. That would include looking for ways to differentiate products on the shelf that may have some more efficient fertilizer inputs versus a more standard product.

“We’re definitely looking for new opportunities and finding ways to incentivize our suppliers to engage in these activities,” Furrow says. ●

**General Mills says it will use more sustainably sourced commodities like wheat that represent more than 50% of its global purchases.** PHOTO: JIM PATRICO