SUPPLY MANAGEMENT.



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Land O'Lakes Inc.

Land O'Lakes' supply chain and operations organization helps produce food and crops to feed an expanding world population.

Planting Seeds for the

here are currently more than 7 billion

people on the planet. And according

to the United Nations Department of

Economic and Social Affairs, the total

population is expected to expand to as

many as 10.5 billion people by 2050,

with the majority of that population

growth occurring in developing countries. More

and water. Can the Earth sustain such a massive

people on the planet means higher demand for food

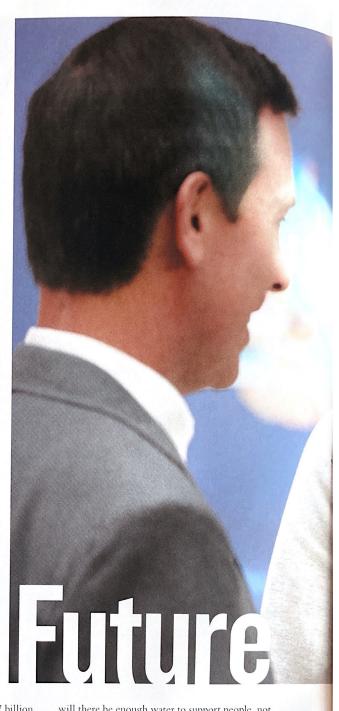
number of people in the future? With water scarcity a

critical concern for the world's agriculture industries,

will there be enough water to support people, not to mention the needs of the global food supply? Governments are attempting to address these issues on a broad scale. However, much of the real-world innovation and progress toward feeding the world is coming from the business sector.

One such company is Land O'Lakes Inc., based in St. Paul, Minnesota. The supply chain division is an active player in the company's strategic activities, involved from the start in new business propositions and product development, as well as coordinating bestin-class agricultural processes and methods to help its

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suppliers maximize output and conserve resources. The supply chain and operations portfolio is, essentially, the feed that keeps the company growing — well beyond the iconic butter Land O'Lakes is best known for.

"Most people think of us as a butter company. But our dairy products make up only one-third of our business," explains Beth Ford, executive vice president, chief supply chain and operations officer for Land O'Lakes Inc. "Feed and seed products make up another third, and our agricultural seed and crop protection business comprises the final third. Food and agriculture are growing industries as the world

population grows, and supply chain and operations enables Land O'Lakes to keep up with that growth."

The Cooperative Business Model: Help Us, We'll Help You

Since 1921, Land O'Lakes Inc. has been a memberowned cooperative; currently, it has three distinct businesses — Land O'Lakes, WinField™ Solutions and Purina — under its umbrella. Through this cooperative business model, its shareholders are composed of its members and they supply raw materials (for example, milk) to the company, and/or purchase

Beth Ford, executive vice president, chief supply chain and operations officer for Land O'Lakes, speaks with employees Ken Hoover and Tara Tierney.

Planting Seeds for the **Future**

the company's goods and services (such as feed and crop protection products). Today, the company has 3,200 directproducer members and 1,000 membercooperatives serving more than 300,000 agricultural producers.

The supply chain and operations functions encompass several business units, according to Ford. This includes manufacturing, engineering, planning/logistics and warehousing across approximately 200 locations, mostly in the United States. All of these functions are ultimately affected by issues facing the food and agriculture business, meaning that Ford and her team deal directly with today's primary challenge: volatility in the commodities market.

"The volatility we've seen in the market, especially tied to grains, can have applications for our feed business, our dairy producers and other suppliers. So, in the procurement area, we closely examine the market and engage in hedging where it's appropriate," says Ford. There are many market-based positions that procurement can take to offset risk and find opportunities during volatility, with minimal risk. For example, the team monitors expected crop outputs for corn and soybeans over several months, and then makes budgeting and investment decisions to maximize output levels for farmers or producers. "We're working every day to ensure we manage risk appropriately. Our team might be buying, selling or taking positions as they understand what's going on with the volatility in the market, and we leverage that knowledge," explains Ford.

Working hands-on with farmers and producers to make the most of their crops and their availability of arable land is another daily activity at Land O'Lakes. One of the primary divisions in the company's agriculture portfolio is WinField, which specializes in crop protection products and seed. WinField partners with large organizations that have done intensive research on seed and crop management to identify seeds that help maximize a farmer's output per acre

— using seeds developed to resist drought conditions, for example. Also, in-thefield research is conducted at more than 200 of WinField's AnswerPlot™ locations, plots of land that allow direct testing of different seeds and the output of crop protection items.

"We are able to bring a farmer in and really examine his farm's soil composition for optimal seed types and crop protection strategies that can be used for the best quality, output and profit," says Ford.

The state of agriculture is changing fast, and Ford says she has developed a true appreciation for the work farmers accomplish by doing more with less. "Years ago, the output of one acre of land would support 10 people, and today it's more like one acre needs to support 100 people."

"Agriculture is data-based. It's fascinating. We can share this information with the farmer, paired with satellite technology to take snapshots of the land, and determine the most fertile areas and where certain crops would grow best." This information helps farmers avoid overallocating seed in areas that do not need it, and apply crop protection to only the areas that require it.

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land would support 10 people, and today it's more like one acre needs to support 100 people. That's why productivity and an understanding of inputs that can increase output are so important, now and in the future."

"We're Involved at the Very Beginning."

As with any company, innovation and the creation of new products are crucial to long-term success at Land O'Lakes. In some companies, supply chain professionals are still struggling to gain a seat at the table in the early phases of a new product launch. Luckily, that is not the case in Ford's organization.

"With any new product, we work directly with the team through a stagegate process," says Ford. "We're involved at the very beginning." Multiple, independent groups (involved parties within the organization) examine the business proposition of the new product, with the goal of taking it through structured steps. This ensures that if the company decides to move ahead with a launch, everyone has full understanding of profit and loss scenarios, consumer research performed, tests completed in the manufacturing environment, scalability options determined and many other relevant aspects. "Rather than being invited to the party later, we're involved and we get specifications in advance, ahead of commercialization. The beauty of this entire process is everyone has a voice at the table." Naturally, this process benefits the supply organization because it is aware of product and commodity needs very early on.

The stage-gate process is accomplished through the completion of three milestone stages prior to a launch.

Stage 1: Define and assess the opportunity. The first step is to gather as much information about a proposed product and make it available to the entire team as early as possible. "If a brand marketer comes up with a brilliant new product, the first thing they must do is present the business case to everyone.

LAND O'LAKES INC.: **A Snapshot**

Founded: 1921

Headquarters: St. Paul, Minnesota Chair/President/CEO: Chris Policinski Annual revenue: US\$12.8 billion in 2011

Total number of employees: Approximately 9,000

Primary business: With the world population expected to increase by 2 billion people and reach as high as 10.5 billion by 2050, food production will need to increase by at least 70 percent to meet expanding demand. Land O'Lakes has been building its capability to take advantage of this growth opportunity. As a producer-owned cooperative with a farm-to-market scope, the company is composed of five key businesses: dairy, feed, seed/crop protection products, business development services and layers/eggs.

Interesting fact: Land O'Lakes launched the first sweet cream butter and the first butter offered in one-quarter-pound sticks, and was the first U.S. national butter brand. The company also holds more than 80 U.S. animal nutrition and feed manufacturing patents.

We then assess how to support any investments and decide whether it makes sense to continue," explains Ford.

Stage 2: Build and validate. When the formal business case is developed, there should be input from all of the players involved in the discussion regarding what's feasible and what limitations or changes might need to be made. Ford says, "We do a lot of development of the product itself at this stage."

Stage 3: Commercialize and launch. "Thanks to the upfront work, by the time we reach this stage, we've overcome most hurdles - whether on the manufacturing side, the supply side or the consumer side," says Ford. "Previously, much of the work in stages one and two would occur without any input from, or interaction with, the operating portfolio (our team). In those cases, the supply

chain group was expected to overcome time constraints to get the product to market. That is not the process we have now put in place. This stage-gate process works very well."

A recent example of the effectiveness of the stage-gate process is Land O'Lakes' new product, Sauté Express™ Sauté Starter. The product is a butter-based cooking and flavoring product, available in four varieties. It was not meant to solely be a flavoring product; the company wanted to perfect the ingredients to enhance the cooking process, as well. The development took more than one year, but during each step of the process the team met often to discuss any issues and possible areas of improvement. When questions emerged concerning the proper viscosity and cooling rates of the product, the team immediately addressed them.

"There are always hiccups along the way. However, the stage-gate process allows for that because you understand the timing needs and the team is working together. Everyone is at a conference table, ensuring that their element of the launch is still on track. We can work through any issues that arise by engaging in this new process," says Ford.

The supply chain and operations group has also been integral to Land O'Lakes' acquisitions of other companies. The most recent acquisition, Kozy Shack Enterprises LLC, a leading manufacturer of refrigerated puddings and desserts, has been a success. The team worked rapidly to integrate the company, taking advantage of the best practices already in place at Kozy Shack and pairing them with Land O'Lakes' best practices. "We'll continue to use Kozy Shack's manufacturers because the refrigerated dessert business is their specialty and we don't want to divest ourselves of that platform," explains Ford. "At the same time, there were some things in the supply chain from a planning, procurement and engineering perspective where we were able to leverage our company's scale and gain efficiencies, including in procurement spend."

Supply chain was a key partner on the executive team to integrate Kozy Shack,

which "got it off to a great start," says Ford. "I had my leading department heads and their primary resources on the ground right away, getting an integration plan running. And it's gone beautifully."

Strong, Passionate **Leaders Needed**

Going forward, one of the significant challenges for Ford is optimizing the company's talent to ensure Land O'Lakes is prepared to capture growth in the food and agriculture industry efficiently and profitably. "The job of the supply chain and operating portfolio is to make sure we're in a position to capture that growth from an infrastructure and talent capability perspective, and be aligned with the strategies that are identified over multiple years by the business," says Ford.

Like many supply chain leaders, Ford is concerned about the competition for talent. She says her organization is on the lookout for people who are "passionate about supply chain, passionate about the food and agriculture industries, and really have a drive for career growth."

To that end, Ford is a proponent of internship programs and is actively involved in working with universities to give interns hands-on experience. She has spoken to classes about aspects of supply chain, the agriculture business and other relevant topics. "It's important to try to get students excited early about the supply chain function and our industry. They want to kick the tires on us, and we want to kick the tires on them," she says.

At the moment, Ford is excited about the future of Land O'Lakes, largely crediting President and CEO Chris Policinski for keeping the company on the right track from the top down. "He has a very firm vision for where this company could go, and I consider him an outstanding leader," says Ford. "It's the key for us to grow along with the food and agriculture world. If you're not growing, you're falling behind ... so we want to be growing." ISM

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