

## Improved Genetics Provides Opportunity In Sheep Milk Market As Ms. J and Co. Amping Up Milk Production

Monroe, WI—Over 300 healthy and happy-looking sheep may bear the answer to a relatively stagnant US sheep milk industry.

As young as days old, these sheep are a sign of progress being made in a goal to provide a consistent supply of sheep milk through improved genetics.

It is the belief of partners Mariana Marques de Almeida, Shirley Knox and Jeff Wideman, that the US dairy product manufacturer is ready to tackle sheep milk cheese imports and grow a domestic market in the US.

The three partners formed Ms. J and Co. in 2015 to establish, from a European breed, the availability and an improved supply in quality, yield and quantity of sheep milk here in the US.

The US in recent years has imported between 60 million and 73 million pounds of sheep milk cheese every year, with a value exceeding \$200 million annually, while only around 3.3 million pounds a year are produced domestically, according to figures from USDA's Foreign Agricultural Service.

Leading sources of sheep milk cheese imports include Italy, Spain, Greece, France and Bulgaria.

"There is huge opportunity here in the US to displace some of the imports of sheep milk cheese," Marques de Almeida said. "All we needed was a consistent supply of milk. And we have that now."

Currently Ms. J and Co. is milking 230 sheep that produce about 1,100 pounds of milk a day. By July, the company will be milking 400 sheep with production nearing 2,500 pounds of milk per day.

With production increasing, Marques de Almeida says the company will have enough animals to

sell to other farmers in the US who can then supply sheep milk to local cheese makers.

"We are expanding genetics to other farms, we are selling more animals, we are producing more milk," Marques de Almeida said. "We are growing this market."

She said the company is way ahead of where they thought they would be on genetics.

"We are seeing more milk production than what we thought we'd see at this stage of the game," Marques de Almeida said.

The breed of sheep is the Assaf breed and, according to Marques de Almeida, it has already shown an increased production and yield.

"It's exceeded our theory at this point. We have one ewe milking 11 pounds a day," Marques de Almeida said. "We have a few of them milking at 10 pounds a day. We didn't think we'd be here at this time."

On the average, a normal sheep may produce four pounds of milk a day, she said. The sheep milk yield is around 17 pounds of cheese, because sheep milk has twice the protein and fat as cow's milk.

"If we can reach 600 animals milking, with the Assaf genetics, we will be producing around 4,000 pounds of milk a day. It's a game changer," Marques de Almeida said. "It's an opportunity for the industry. Every three days, we can produce 12,000 pounds of fresh, consistent supply of sheep milk. That's the volume someone can run with."

### Impetus Of Ms. J & Company

Well known throughout the world for her role as senior animal scientist, agricultural engineer and an expert in sheep genetics, Marques

de Almeida and Wideman met while judging the Cincho Cheese Contest in Spain.

Wideman later invited Marques de Almeida to judge sheep milk cheese at the Wisconsin Cheese Makers Association's World Championship Cheese Contest in Madison, where she met Knox.

"We talked extensively and I explained the import numbers, the types of cheese and both Jeff and Shirley kind of sat up in their chair and wanted to know more," Marques de Almeida said. "They didn't believe those numbers. One truck of sheep milk cheese is imported every day."

Marques de Almeida said the market is open and there is huge potential.

We inundated Mariana with questions about the feasibility of making sheep milk cheese; styles, breeds and all sorts of things, Knox recalled.

"We were blown away about the possibilities," Knox said. "We looked at the amount being imported. We said, let's just try and take a good bite out of that. Let's claim that market."

As cheese makers and cheese marketers, we spotted a need for sheep milk cheese here in the US and thought we could make it ourselves, Wideman said.

"There is a market out there. We know it," Wideman said.

Unlike cow and goat milk, the USDA doesn't view sheep milk as a commodity and therefore statistics on herd size or sheep milk production are not available.

"We were intending on making cheese but found out there just wasn't enough sheep milk in the US for us to even consider it," Knox said.

"We were disappointed in the availability of fresh milk, but once we started talking about it, we never did lose that initial interest in it. We kept asking the same question," Wideman said. "If there isn't enough milk to make cheese, how do we make more milk?"

So while the plan to make sheep milk cheese ended that day, their focus turned to growing the sheep milk market.

### Change in Plans

Being cow milk cheese makers, Wideman and Knox just couldn't understand why there wasn't enough of a sheep milkshed, why there wasn't a concentration of sheep milk like there is for cow.

You can't grow a cheese market until you have enough milk to make it, Wideman said.

They convinced Marques de Almeida to come to the US from

Portugal to take part in the project and spark sheep milk production.

She said her vision was not only to grow a milk supply, but also to produce animals and to work with the entire American sheep dairy industry and to make a difference in the lives of those involved.

"It's not about us," Shirley Knox agreed. "At this time we do not plan on making sheep milk cheese. Our goal is to support the cheese-makers and the sheep milk industry wherever we can."

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### Sheep Milk Market

Ms. J and Co.

currently operates in fresh milk shipments, though they are looking into freezing some milk for long haul customers.

Their customers are people who want to start trying to make sheep milk cheese; cow's milk customers looking at making mixed milk cheese; and/or established companies needing more sheep milk or fresh milk in the winter months.

"We're trying to grow together," Marques de Almeida said. "I don't think it will come down to the day where we don't have a market, I think it's going to be a market that needs more milk."

In touring the facility, you really can appreciate the effort and belief these three partners have in reaching their goal of supplying the industry.

Marques de Almeida handles all the genetics and inseminations while Carissa Brooks is the operation's farm manager. Brooks has a degree in dairy science from the University of Wisconsin.

"She's incredible," Marques de Almeida said of Brooks. "She does amazing work in controlling milk quality and flock health. Carissa and the rest of the team are part of this success story."

"We haven't put this much money into this facility, and the incredible people, with doubt," Wideman said. "We need to show the industry our success so the dairy manufacturer, as well as the marketer, has confidence in quality and supply. Our success is support."

The people purchasing their milk are now working on markets, Marques de Almeida mentioned. I believe they'll find good, strong markets. They are starting to share our belief.

"We work with a several artisan plants but because of the milk we'll have, we'll need to start working with some plants that are bigger, in addition to growing the number of artisan plants," Marques de Almeida said. "We need a more stable distribution and bigger players because we'll be producing much more milk."

"We have a few clients asking us to go Grade A to make yogurt,"

• See **Sheep Milk**, p. 23



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## Sheep Milk

Continued from p. 22

Marques de Almeida said. “We are Grade B right now, but for us Grade A is just paperwork, because our milk is so great in quality and is superclean. That’s going to open up a few more markets.”

We haven’t pigeon-holed ourselves that this is just going to go into cheese, Knox said. Yogurt and dried powder markets are new ideas that have come to mind. I think there is a lot out there. It just takes time. Imagine the purity of sheep milk powder. But for powder it takes volume.

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—Mariana Marques de Almeida

“The opportunity is here. Everything you can do with cow milk can be done with sheep milk,” Knox said. “There are companies who just may not have thought of them yet. It’s another specialty item that commands more money.”

### Assaf Breed & Genetics

Seeing the lack of sheep milk, the obvious first step for the three partners was to grow the flock here in the US.

What they discovered was milking American sheep was low in production and quality and high in costs.

That’s when they started to learn more about the Assaf breed. Assaf is an established sheep milk cross breed of Awassi and Fresian sheep that originated in Israel.

The purebred breed was exported to Spain, where Marques de Almeida learned of the animal.

In Spain, the Assaf Spanish Breeders Association implemented a genetic improvement program as the breed grew. According to the association, this improvement program not only increased the quality of the milk, but also the quantity of milk, making the Assaf breed the best producing sheep breed in the world.

One of the stated goals of Ms. J and Co. is to provide the sheep milk industry a source for genetic material such as semen from pure Assaf breed sheep. The company is also planning to provide counseling on the establishment of genetic improvement programs.

Marques de Almeida said the company is working with all the big sheep milk cheese plants.

“We have been inseminating and supplying the semen to all the major cheese producers rather than trying to ship milk,” she said. “They demand a fresh supply, their sheep milk farmers are using our Assaf genetics.”

She said the Assaf breed produces two to three times more milk while keeping the same components.

“It’s not more about the sheep milk that makes it great, it’s the sheep that make great sheep milk, she said.”

Marques de Almeida described that years ago, sheep milk cheese



Carissa Brooks, Mariana Marques de Almeida, Jeff Wideman, Shirley Knox and over 300 Assaf sheep of Ms. J and Co. are helping revitalize the stagnant US sheep milk dairy industry by boosting sheep milk production and improving genetics.

manufacturers in the US needed to search for enough milk for production requirements.

Mixing fresh milk with frozen might provide some consistency problems to the taste, she said.

“If you can have a pool of fresh milk to work with, a consistent pool of fresh milk all the time, it makes a much better product that is fresh and consistent and you don’t have the barny odors,” Marques de Almeida said.

Today, Ms. J and Co. is the official representative for Assaf Spain in North America.

“If you were to ask me does this make better cheese, I’d have to believe it does, she said. “The most important thing in making great tasting sheep milk cheese is a stable source of fresh sheep milk.”

The reason sheep milk cheese in the US hasn’t taken off already is there is no volume of milk.

“A farmer is not going to make it on four pounds a day on average of sheep milk. A plant can’t grow

on limited supply,” Wideman said. “You have to have that production. You have to have that volume.”

Ideally, if we could start someone now and build a market, the market growth will coincide with the production growth, he said.

While the plans called for them to be making sheep milk cheese by now, for the partners, the plans have changed and they are happy.

Whether it’s selling milk, creating and improving sheep milk farms throughout North America and the livelihood of the families that operate those farms, or growing a domestic sheep milk cheese market, it’s a legacy they will always have and one to be proud.

“This is very rewarding,” Marques de Almeida said. “Every day I am happy to come to work. “I believe we could make it here. What really made me come over was that I knew we could make a difference in this world.”

For more information, visit [www.msjandco.com](http://www.msjandco.com).

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