Quadbeam Technologies offers sensors for increased processing efficiencies, better control

AUCKLAND, New Zealand — Quadbeam Technologies Ltd., a New Zealand-based company with distribution in the United States, is a manufacturer of sensors developed to increase process efficiencies in the dairy and food industries through better control of turbidity and suspended solids.

Quadbeam Technologies provides high-quality suspended solids and turbidity meters for process environments. The special features incorporated into the design of Quadbeam sensors mean they are particularly repeatable, accurate and reliable, providing significant process and yield improvement to customer processes, says company owner Geoff Letcher.

Letcher says Quadbeam's technology was developed specifically to meet the demands of the New Zealand dairy processing industry, but the company's range of products has been enhanced, producing a range of products to specifically meet a range of concentrations and installations.

He adds the most successful returns from Quadbeam products are within the dairy and food and beverage industries, and the company has been making inroads into the North American market.

"The sensor provides meaningful data and can be calibrated at the factory to suit and control the operator's processing system."

Geoff Letcher
QUADBEAM TECHNOLOGIES LTD.

Quadbeam's S Series sensors are manufactured from a polymer block eliminating glass and the chance of leakage at the same time. A simple multi-point calibration system has been used to ensure that the sensors can be calibrated on site against meaningful site standards and site lab equipment, Letcher says.

"Our point of difference is that we have a solid piece of polymer that makes it impossible for the sensor to leak, and the four-beam system virtually eliminates drift due to contamination," Letcher says. "The sensor provides meaningful data and can be calibrated at the factory to suit and control the operator's processing system."

The sensor, he notes, measures and controls the fat and protein concentrations in yogurt making factories in New York and Idaho, in cheese factories in Wisconsin, in milk powder plants in California, and for bottled milk in China.

"If a dairy processor targets 3.7 percent milkfat concentration … our sensor gives accurate and repeatable readings and helps reduce production losses," Letcher says.

Quadbeam offers several S series sensors for the dairy industry, including the S10 Suspended Solids Sensor Range for high solid levels; the S20 Suspended Solids Sensor Range, most commonly used in applications such as solids recovery, CIP control, and percent fat and loss monitoring; and S40 Suspended Solids Sensor Range, used for low levels of milkfat in monitoring CIP return and filter breakthroughs.

Quadbeam also offers the T30 In Line Process Turbidity Meter Range for very low levels of solids, commonly used in condensate monitoring, heat exchanger breakthrough and effluent release.

The S20 range in particular is regularly used for accurate milk to water process change control, Letcher notes.

"Quadbeam Technologies' four beam ratio-metric infrared, self-compensating light attenuation sensor can accurately detect the change in the transmission of light through the milk and water interface and therefore be used as a tool to repeatedly identify a predetermined concentration in which to divert," he says. "Competitive single-beam sensors do not have the compensating technology, so long-term repeatability can be challenging."

He adds that S20 sensors also are extensively used in loss monitoring applications, giving operators live and accurate data of solids being lost to drain.

"This data, as well as being used to raise alarms if a calamity occurs, is used as a basis for overall process improvement," he says.

Quadbeam sensors tend to be more competitively priced than other multi-beam products, Letcher says. The company is proud of the fact its products are often used in an effort to produce sustainable products and help improve the environment, he adds. **CMN**

USDA's Risk Management Agency announces enhancements to dairy insurance programs

WASHINGTON — USDA's Risk Management Agency (RMA) recently announced several enhancements to insurance programs that will provide a more efficient level of coverage for livestock and dairy producers. These program improvements to the Dairy Revenue Protection (DRP), Livestock Gross Margin (LGM) and Livestock Risk Protection (LRP) programs take effect July 1, 2019.

"These changes to livestock and dairy programs strengthen risk management options and provide peace of mind in times of unpredictable market fluctuations," says RMA Administrator Martin Barbre.

DRP is designed to insure for unexpected declines in the quarterly revenue from milk sales compared with a guaranteed coverage level. The expected revenue is based on futures prices for milk and dairy commodities and the amount of covered milk production elected by the dairy producer. The covered milk production is indexed to the state or region where the dairy producer is located.

Improvements for the 2020 crop year include:

• A modification to the minimum declared butterfat from 3.50 to 3.25 pounds, making the range 3.25-5 pounds. The minimum declared protein range is expanded from 3.00 to 2.75 to 2.75-4 pounds, affording greater coverage flexibilities for dairy producers;

• Removal of the declared butterfat test to declared protein test ratio to simplify the process for dairy producers; and

• Adjustment of the coverage levels and removal of the 70 and 75 percent coverage levels.

Additionally, the 2018 Farm Bill allows producers to enroll in LGM-Dairy or DRP and simultaneously participate in Dairy Margin Coverage, a program administered by the Farm Service Agency.

LGM provides protection against loss of gross margin or the market value of livestock minus feed costs. The Bipartisan Budget Act of 2018 removed the livestock capacity limitation, which allowed the LGM program to remove the individual capacity limitation under the dairy, cattle and swine program. Prior to the revised legislation, the Federal Crop Insurance Act limited the amount of funds available to support livestock plans of insurance offered by RMA to $20 million per fiscal year.

Meanwhile, LRP protects livestock producers from the impact of declining market prices. RMA offers LRP insurance plans for fed cattle, feeder cattle and swine. LRP improvements include an update to the Chicago Mercantile Exchange trading requirements to allow for more insurance endorsement lengths to be offered for producers to purchase, among other things.

For more information, visit www.rma.usda.gov. **CMN**