



# PRESS RELEASE

## LWR AWARDED BRAZILIAN PATENT FOR THEIR TRIPLE-BOTTOM-LINE APPROACH TO MANURE TREATMENT

*Brazil's ag sector booms as LWR prepares to enter this market with their newly awarded patent.*



### FOR IMMEDIATE RELEASE

**RIO DE JANEIRO, BRAZIL** – (February 21, 2020) Livestock Water Recycling, an award-winning global manufacturer of manure treatment systems, announced today that it has been awarded a patent in Brazil. The LWR System makes it possible for livestock producers to achieve environmental sustainability while maximizing farm productivity through water recycling, and precision nutrient application that includes fertigation.

LWR's approach to manure treatment aims to help the agriculture sector achieve triple-bottom-line outcomes: meeting the growing demand for food, increasing farmer profitability, and protecting the environment and public health. Livestock producers who have installed the LWR System have avoided adding manure storage lagoons and have expanded their herds without increasing their water footprint. The water that is being recycled is making farms cleaner and safer for animals and employees while simultaneously reducing the amount of well water that is used for irrigation. Treating manure with the LWR System reduces greenhouse gas emissions by over 81%, and producers have seen crop yields increase anywhere from 30-50% due to strategic nutrient application.



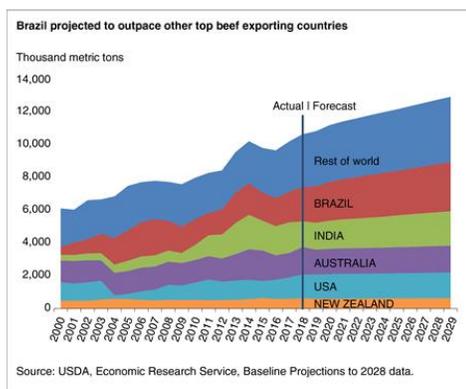
Figure 1: Brazil is home to the world's second-largest cattle herd at 232 million head. : Farmers Guardian

Agriculture has always been a massive contributor to the Brazilian economy and Brazilian exports have recently surged due to increased demand from China. The Institute for Applied Economic Research (IPEA), a public institution that provides technical support to the Brazilian government with regard to public policies, predicts that the Brazilian agricultural GDP will rise 2%, as farming is expected to grow 2.8%. Livestock may rise 2.2%, driven by a 2% increase in cattle production.

At the same time that Brazilian agricultural production is expected to grow three times faster this year than it did in 2019, the Brazilian Confederation of Agriculture and Livestock (CNA) warns that farmers will face higher costs, such as imported fertilizers due to a weaker currency. While Brazil is a farm powerhouse, it still imported some 26.3 million tonnes of fertilizer last year, according to fertilizer association ANDA, which amounts to three quarters of the nutrients that farmers used.

This presents a significant opportunity for manure fertilizer plants in Brazil, especially given that a [recent report](#) cites [pig] manure as a promising resource for the fertilization of tropical soils, characterized as having low natural fertility. The report proves that manure provides a positive carbon balance, which favored Brazilian Cerrado soil.

With a booming agriculture economy that is expected to double in the next 20-25 years, the business opportunity in Brazil is not lost on the world's largest potash producer. [Nutrien](#) wants to become a top distributor in Brazil and is prepared to spend [\\$1 billion](#) in the country over the next five years. Nutrien CEO Chuck Magro says a 30% share of the Brazilian market is good number "for starters." Their plan is to branch out from the Southeast region to the interior of Brazil over the next three years. With an operation under construction in Minas Gerais and four in Goiás – Nutrien intends to become the first fertilizer distributor with operations in all regions of the country.



Brazil is home to the world's second-largest cattle herd—232 million head, and in 2018, was the world's largest exporter of beef, providing close to 20% of total global beef exports, outpacing India, the second-largest exporter. The USDA projects that Brazil will continue its export growth trajectory for the next decade, reaching 2.9 million metric tons, or 23% of the world's total beef exports, by 2028.

China, Brazil's biggest market for food exports, increased imports of Brazilian beef and pork in 2019, influencing Brazilian beef production growth by 22% in 2019.

Soy, the top crop of Brazilian agribusiness, accounted for 28% of its exports valued at \$23.2 billion in 2019 and will continue to grow in 2020. This protein-rich grain is critical to livestock production, but is also water intensive, taking some 1,500 tons of water to produce one ton of soybeans.

Paulo do Carmo Mantins, chief at Embrapa Dairy, the Brazilian Agricultural Research Corporation and part of the Brazilian Ministry of Agriculture, Livestock, and Food Supply, sees progress in Brazil's dairy sector and is convinced that a new generation of dairy producers are doing things differently and more professionally than the older generation dairy farmers. Today, the Brazilian dairy industry has over 20 million cows. In some cases Brazilian cooperatives and companies have the same productivity level as New Zealand, European or US dairy firms.

"Receiving this patent is the next phase in our global expansion" says Karen Schuett, CEO and Co-Founder of LWR. "Not only has our technology been designed to maximize farm sustainability, it is first and foremost a profitability tool for farmers looking to increase crop growth, and Brazil is an ideal market for this value proposition" adds Schuett.

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### About Livestock Water Recycling

[LWR](#) is an award-winning global manufacturer of manure treatment systems that provide hog, dairy and anaerobic digester operations with patented manure treatment technology to recycle clean water and fertilizer nutrients from livestock manure for reuse at the farm. North America's leading provider manure treatment systems, the LWR system saves farmers time and money by providing them with a cost-effective solution to manage manure in a sustainable manner. LWR has systems operating throughout Canada, the US and Middle East. In March, LWR will be exhibiting at [AGRAME](#) in Dubai, United Arab Emirates (UAE) and will be in attendance at the [World Agri-Tech Innovation Summit](#) in San Francisco.

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