



# FACT SHEET 2023

## INNOVATION TO INCREASE PRODUCTIVITY, PROFITABILITY, AND SUSTAINABILITY.

Operating at the intersection of ag tech, water tech and energy tech, LWR reimagines waste to create value for food producers by transforming the expense and impact of waste liquids into an exciting profit dynamic. By modernizing manure management, we can reduce manure related expenses while unlocking the monetary value trapped inside manure lagoons.

20+ years experience in a previous wastewater commercialization has culminated in a disruptive water treatment technology that applies data to recover the value from manure and bio liquids and produces clean, reusable water.

LWR transforms waste into revenue for protein producers with a patented, Machine Learning powered data-driven technology that converts manure into fertilizers, biogas feedstock, and recycled clean water. This positions farms to increase production and diversify revenue streams, while still improving on-farm nutrient efficiencies. Positive environmental impacts from these installations can become Verified to give producers access to ecosystem markets for carbon and water credit trading.



LWR is the first company in the world to digitize manure to help measure it, manage it, and make money from it. Manure data is captured by an analytics module that digitizes the data for easier on farm decision making. This analytics reporting is available on the myPLANT mobile application available with every system installation. This data can be used to verify emissions reduction and methane avoidance through the VCS program, as recently achieved one of LWR's First Wave customers in Washington State.

## THE OPPORTUNITY

With skyrocketing fertilizer prices, a booming renewable natural gas sector, and consumer trends towards transparency and authenticity, manure is one of the most exciting and significant opportunities on the planet!

The profit generated by manure and energy production is an exciting new dynamic for dairy farms. Biogas contracts mean an additional revenue stream for the farm that could exceed the profit from milk!

## ESG ALIGNMENT

LWR fertilizer **PLANT** systems process over three and a half billion gallons of manure and digestate annually. With a goal to transform one trillion gallons of manure by 2050, LWR is directly impacting 10 of the UN's Sustainable Development goals.

## LWR is the Global Leader in Resource Recovery

<b>Founded</b>	2012	<b>Employees:</b>	18
<b>Founders:</b>	Karen Schuett, Co-Founder   CEO karen.schuett@lwr-inc.com		
	Ross Thurston, Co-Founder   CDO ross.thurston@lwr-inc.com		
<b>Contact:</b>	Doug Laird   COO   doug.laird@livestockwaterrecycling.com 403-203-4972   7920 56th Street SE Calgary, AB, Canada T2C 4S9		
<b>Management:</b>	The LWR senior management group has over 90 years of cumulative experience in environmental water management. We have assembled a team of professionals for sales, design, field service, technology, manufacturing, management, human resources and marketing.		

## VALUE PROPOSITION

↑ Farm Revenue	↓ Somatic Cell Counts
↑ Crop Yields	↓ Health Issues (mastitis/hoof)
↑ Herd Size	↓ Odors
↑ Productivity	↓ Manure costs
↑ Worker Health & Safety	↓ GHG Emissions
↑ Water Recycling	↓ Groundwater withdrawals
↑ Access to Credit Markets	↓ Fertilizer costs



## MARKETING AND BRAND POSITION

LWR supports the animal agriculture industry as they seek out new ways to become more economically and environmentally robust by answering one of the sector's biggest questions: How can the nutrients from manure be better utilized both on and off the farm?

By implementing LWR's manure treatment technology, farms are positioning themselves as highly productive and efficient operations with a commitment to the health and safety of their animals and the planet.

This technology encourages today's consumers to support the important water conservation and nutrient management efforts that are being made on these progressive farms with their purchasing power.

LWR's clients are differentiating themselves by promoting how they are positively affecting sustainable food production. **myPLANT** is the next logical step in a farm's commitment to transparency and sustainability. Our marketing goal is to share this message worldwide.

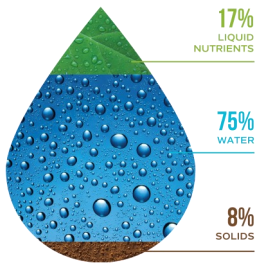


# PATENTED PROCESS

The nutrient and water recovery capacity of **PLANT** is the highest on the market, as validated by a third party. This patented process extracts up to 75% of the water from manure while concentrating and segregating nutrients. As manure liquids flow through the **PLANT** system, solids and fine particles are separated and extracted into phosphorus, potassium, ammonia, and organic nitrogen. The result is clean, potable water, a dry solid fertilizer that is rich in both phosphorus and organic nitrogen, and a concentrated stable ammonium and potassium liquid fertilizer.

## The FIRST WAVE System

From the Innovation Center that developed the #1 selling manure treatment system on the market, comes the First Wave System - offering powerful nutrient segregation in a simple, easy to install, fully automated package. The result is a nutrient liquid rich in ammonia and potassium, and a valuable solid fertilizer material containing organic nitrogen and phosphorus that can be economically exported to far away fields.



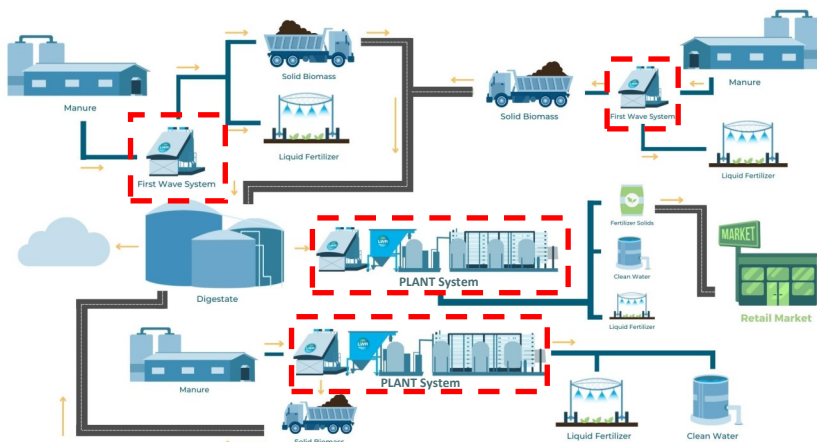
## COMMERCIALIZATION

LWR is scaling rapidly to meet market demand. A total of 20 systems are operating in California, New York, Michigan, Wisconsin, Indiana, Virginia, Washington, Iowa, Ohio, South Dakota, Colorado, Kansas, Lebanon and the UK.

## COMPETITIVE ADVANTAGE

The majority of livestock operations use giant lagoons or holding tanks and management products including land spreading technologies, lined tanks and lagoon covers. Many larger farms are integrating Anaerobic Digesters to engage in the biogas revenue opportunity. LWR's technology can merge seamlessly with these projects to:

1. Treat manure liquids on a single farm prior to feeding solids into a digester
2. Denify liquids on multiple farms before hauling solids economically to a central hub digester to increase biogas production by 2 times
3. Treat digestate post gas production for nutrient and water recovery



**PLANT** is the **only** commercialized and operating system on the market that offers:

- Full automation and operation from smart phone or tablet
- Highest nutrient capture and concentrated NPK
- Micronutrients and organics for precise application to increase yields
- my**PLANT** mobile application and data dashboard based on thousands of data points from operating sites
- Reduction in overall volume of waste liquids
- Flexibility to scale for site requirements
- 3-5X lower capital cost than competitive approaches
- Solutions for hog, dairy, food waste, truck wash, and anaerobic digesters

## MILESTONES

- 2012**
  - Awarded Canadian patent
  - First US System sold in Bath, NY
- 2013**
  - Systems sold in MI, IN, and WI
- 2014**
  - Systems sold in MI, NY, & WI
  - Awarded New Zealand Patent
  - Awarded Russian Patent
- 2015**
  - Systems sold in NY, IN, NE, & WI
- 2016**
  - First Wave Systems sold in VA & MI
  - Awarded EU patent
- 2017**
  - Awarded US Patent
  - Signed US Distribution Agreement
- 2018**
  - First International sale outside of US
- 2019**
  - Awarded Australian Patent
  - Systems sold in MI & WA
- 2020**
  - Awarded Brazilian Patent
  - Systems sold in CA, IA, UK
  - System sold in United Kingdom
  - Awarded ERA Project Funding in Alberta
- 2021**
  - Signed multi-unit RNG partnership in the US
  - LOI's signed in Wisconsin, NY, and Ohio
  - Received investment from BDC Cleantech
  - **PLANT** Awarded Solar Impulse Label
- 2022**
  - Signed multi-unit RNG partnership in the US
  - Invited to present at COP27 in Egypt
  - Customer becomes Carbon Credit Verified
  - Recognized as a Foresight 50
- 2023**
  - Customer becomes Carbon Credit Verified for methane avoidance through [VCS](#)

## LATEST NEWS

- [LWR Recognized as One of the Country's Most Investable Cleantech Ventures](#)
- [LWR Sees Money in Manure \(Toronto Star\)](#)
- [PLANT awarded Solar Impulse Label](#)
- [LWR selected to join MaRS Momentum](#)

**FORESIGHT 50**  
2022  
Canada's Most Investable  
Cleantech Ventures

NO INVESTMENT ADVICE: The Foresight 50 list is provided for informational purposes only.

**MaRS**  
**MOMENTUM**  
CANADA'S NEXT  
\$100M\* COMPANIES  
(BY REVENUE)