



Green Plains Achieves Breakthrough 60% Protein Concentration, Record-High Renewable Corn Oil Yield

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- Achieved 60% protein concentration over the course of a month-long trial using Fluid Quip Technologies' MSC™ system combined with biological solutions exclusive to Green Plains
- Over the last 16 days of the trial, protein concentrations averaged 61.4%, reaching as high as 63.1%
- Realized protein production yields as high as 4 pounds per bushel
- Produced up to 1.4 pounds per bushel of renewable corn oil, exceeding baseline yield by 75%, surpassing prior target of 1.2 pounds
- Market validation efforts underway across multiple species

OMAHA, Neb., April 20, 2022 (GLOBE NEWSWIRE) -- Green Plains Inc. (NASDAQ:GPRE) today announced that product and technology innovation efforts have led to the production of greater than 60% protein concentrations with yields as high as 4 pounds per bushel at its Wood River, Nebraska, biorefinery, using the patented Fluid Quip Technologies MSC™ system. The breakthrough was accomplished through a full-scale production changeover across the entire plant's fermentation and production processes. Modifications for the trial also resulted in record-high low-carbon renewable corn oil yields of up to 1.4 pounds per bushel, further expanding the company's ability to supply a strategic feedstock to the fast-growing renewable diesel market.

"We believe that for the first time in history, a dry-mill biorefinery has been able to achieve protein concentrations over 60% with yields approaching 4 pounds per bushel, which can drastically improve the economics of a biorefinery," said Todd Becker, President and Chief Executive Officer. "This is a truly game-changing event as we believe no other technology exists at this commercial scale that can provide 60% or greater, fermented, pre-digested protein products that can radically transform how we feed the world. As we embarked on our journey to transform our facilities to the biorefineries of the future, we anticipated achieving higher protein levels over time, but this trial is rapidly exceeding our expectations. Our speed of innovation will continue to accelerate as we work jointly with our customers to deliver even more value."

Internal and external product validation efforts are underway to assess additional nutritional value beyond protein concentration levels and begin formulation for a variety of diets in aqua, pet and swine. Products from the trial at Wood River will be included in aquafeed diets produced on multiple extrusion platforms at the company's Omaha innovation center and then validated through customer and internal feeding trials at its Shenandoah Aqualab, creating a unique end-to-end, in-house innovation platform. With the opening of its Innovation Center at Omaha, Green Plains now operates three innovation centers, allowing it to move from benchtop, scale-up, feed production to finished product testing.

"While 50% protein was the starting point, we believe the market for fermented plant and yeast-based proteins has significant price inelasticity as they are valued as nutritional solutions and do not trade like commodities," said Leslie van der Meulen, Executive Vice President, Product Marketing and Innovation. "We are in advanced conversations with global customers to use this revolutionary product to help solve specific needs through our fermentation and innovation platform. We are focused on building long-term relationships and becoming a cornerstone provider of sustainable, low-carbon, antibiotic-free ingredients."

"With this success, the disruptive, transformational technologies we are deploying are demonstrating the potential to distance us from historical volatility and continue to unlock the true value of Fluid Quip Technologies' leading ag-tech platform for Green Plains, our partners, customers and shareholders alike," added Becker. "Between MSC protein and ingredients, low-carbon renewable corn oil and Clean Sugar Technology, along with our exclusive partnership with Novozymes, we believe the strength of our innovative IP portfolio is unmatched in agriculture today. We now have a thorough understanding of how to optimize our patented MSC technology with engineered mechanical changes and additional biological formulation upgrades. We will continue to develop this process to fully transform our current operations while remaining on track to meet our 2024-25 objectives."

About Green Plains Inc.

Green Plains Inc. (NASDAQ:GPRE) is a leading biorefining company focused on the development and utilization of fermentation, agricultural and biological technologies in the processing of annually renewable crops into sustainable value-added ingredients. This includes the production of cleaner low carbon biofuels, renewable feedstocks for advanced biofuels and high purity alcohols for use in cleaners and disinfectants. Green Plains is an innovative producer of Ultra-High Protein and novel ingredients for animal and aquaculture diets to help satisfy a growing global appetite for sustainable protein. The Company also owns a 48.9% limited partner interest and a 2.0% general partner interest in Green Plains Partners LP. For more information, visit www.gpreinc.com

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