

New innovative enzyme technologies improving economics for the ethanol and livestock feeding industries

Cologne, Germany, October 8, 2012: Direvo Industrial Biotechnology GmbH is introducing its BluZy™-product development platform, delivering innovative biology-based solutions to improve economics of renewable fuels and livestock feeding markets. Direvo's most advanced product, BluZy™-D, substantially improves the nutritional value of DDGS and offers a cost effective alternative to corn and soy bean meal in broiler production. Further product developments are in pipeline, focusing to get the most and best out of every bushel corn.

"Direvo's innovative enzyme technology, our BluZy™- product development platform, has the potential to turn corn-ethanol plants into true biorefineries" commented Direvo's CEO Jörg Riesmeier. Escalating grain prices are putting enormous pressure on ethanol processors and animal feed markets. Ethanol plants are shutting down due to low margins and are focusing efforts to identify technologies that will decrease production cost and add value to their co-product streams. Feedlot managers, on the other side, are searching for new feed ingredients to reduce feed cost and reduce dependency on the volatility of commodity corn and soybean markets.

The ethanol and animal feed industry have developed an important interdependence in the last few years through Distillers Dried Grains with Solubles (DDGS), a major source of revenues for corn-based ethanol producers and a popular substitute for corn and soybean meal in animal feed rations.

DDGS is a popular feed ingredient and is providing much of the needed protein, energy, phosphate, vitamins and other important nutrients to livestock. While its use grew rapidly in beef and cattle production, feeding DDGS to monogastric animals remains limited, mainly due to its high fiber content and low digestibility. BluZy™-D, was developed to provide DDGS with high nutritional value for the broiler industry. The key objective of BluZy™-D is to increase fiber digestibility, nutrient absorption and enable higher inclusion rates to reduce costs of feed formulations. The performance of BluZy™-D has been verified in initial animal trials as compared to commercial DDGS available on the market. The production of this high value feed ingredient is currently being scaled up and will be further evaluated in broiler trials at major universities.

In addition, the portfolio includes biotechnologies to improve ethanol production efficiency, by improving processability, reducing energy consumption and improving the consistency of co-product streams.

All products of the BluZy-D™ portfolio are tailor-made for the corn ethanol industry and designed to get the most and best out of every bushel corn. Direvo's mission is to continuously identify the industries' needs, understand their issues and deliver biological solutions that reduce costs and improve margins along the value chain.

About Direvo Industrial Biotechnology GmbH:

Direvo is a biotechnology company with focus on the biomass conversion industry. Direvo identifies bottlenecks and weaknesses in current industrial processes in this sector and develops and implements biology-based solutions together with large and small industrial partners. Direvo's products are newly designed enzymes and microorganisms of the highest quality that provide easy-to-implement, cost-effective solutions. Direvo's contribution assures that partners stay competitive and profitable while Direvo adds to their ability to make the future cleaner, greener and safer. More information about Direvo is available on www.direvo.com.