German enzyme maker targets higher DDGS use in poultry rations

By Susanne Retka Schill | October 15, 2012

Poultry feeding trials will be underway this month on distillers grains produced using a new enzyme being introduced by Cologne, Germany-based Direvo Industrial Biotechnology GmbH. Its BluZy-D enzyme substantially improves the nutritional value of DDGS and offers a cost-effective alternative to corn and soybean meal in broiler production, according to the company.

“We are not planning to achieve incremental improvements in inclusion rates,” Klaudija Milos, vice president industrial solutions, told Ethanol Producer Magazine. “Rather we aim to have significantly more DDGS in the diet compared to today’s industry practice.” The maximum feeding rate will be determined in a number of trials that will begin this month. While the work began in Europe, he added that Direvo is currently working with Iowa State University and the University of Georgia in the development of its enzymes for the corn-ethanol industry.

“Direvo’s innovative enzyme technology, our BluZy-product development platform, has the potential to turn corn ethanol plants into true biorefineries,” said Direvo CEO Jorg Riesmeier.

While DDGS 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 the cost of feed formulations. The performance of BluZy-D has been verified in initial animal trials, the company reported. Production is currently being scaled up for further broiler trials. Ration testing on swine will be done in the future.
The enzyme is added after fermentation, Milos explained, and in addition to the coproduct improvements, affects the downstream process “such as improved dewatering, significantly better oil separation, etc. We have just finalized a set of fermentation trials at Iowa State and saw significant effects. Once we have compiled the data, we plan to publish it in a separate release.”

Direvo plans its first product launch sometime next year, he added. “Our enzymes are applied in the ethanol production process, and inactivated during DDGS production, and therefore do not require approval as a feed additive,” he added.

Direvo has other products in development, he said, with most targeting distillers grains for different species and effects. The company also has products aimed at production efficiency and energy savings in the ethanol process.

Earlier this year Direvo announced BASF purchased its optimized mannanase, a novel temperature-stable enzyme that would complement the existing range of feed enzymes currently marketed by BASF. The company is also developing a consolidated bioprocess for lignocellulose conversion which it has trademarked at BluCon-P.

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