

INTERVIEW: Adisseo to Revolutionize NSP Feed Enzyme Market

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6 May 2015 - An NSP feed enzyme - a preparation of endo-1,4-beta-xylanase and endo-1,3(4)-beta-glucanase produced by Talaromyces versatilis sp. nov. IMI CC 378536 and Talaromyces versatilis sp. nov. DSM 26702 - for chickens for fattening, chickens reared for laying and minor poultry species for fattening and reared for laying has just been approved for use by the European Commission until 19 May 2025.

The feed enzyme more commonly known as Rovabio® Excel has proven to be successful and is a leader on the NSP enzyme market. However, the work doesn't stop here for the manufacturer and holder of the new authorization, Adisseo. The company is working on a new generation of enzymes solution, which it expects will be registered worldwide before H2 2016. Feedinfo News Service touched base with Hélène Lionet (Enzymes BU Director at Adisseo) to discuss the reasons why Adisseo is launching this new generation of Rovabio and what customers may expect from the company moving forward.

[Feedinfo News Service] Rovabio® Excel is a best-selling NSP enzyme. Is there really a need to launch a new generation?

[Hélène Lionet-Llorca] To lead is also to innovate, providing solutions to meat production challenges: produce more high quality animal protein, with fewer resources, in a sustainable way. We have always been convinced that enzymes can still offer more value to our market, so we have never stopped investing in research to develop new enzymatic approaches to improve feed digestibility. Now Adisseo is reinforcing its position in the enzyme market by launching a new generation of enzymes, always keeping in mind those animal production challenges.

[Feedinfo News Service] How was this new enzyme generation developed? What kinds of investments were required?

[Hélène Lionet-Llorca] To achieve this result, during the last years Adisseo's research team was challenged to think out of the box on what could be done to maximize feed digestibility. For that, we increased our annual R&D investments by about 10%. We have learned a lot but we also know that there is still much more to be discovered. Working closely together, our R&D teams in animal nutrition (CERN) and bioengineering (CINABIO) investigated several paths to reach the best enzymatic solution. The main conclusion of this exploratory phase is that the NSP substrates to be hydrolyzed are extremely complex, requiring a complex product to be developed in terms of enzymatic activities. Our research demonstrated that a single enzyme alone would never be able to efficiently degrade the most important NSP complexes present in different vegetable ingredients used in feed production.



Hélène Lionet-Llorca
Enzymes BU Director
Adisseo

The most important strength of Rovabio® Excel is its versatile proven efficacy when added into feeds with different compositions and for different species. Such strength led us to the market leadership, by providing simplicity and peace of mind to our customers. We link this reliable efficacy exactly to the synergic pool of multi-enzymatic activities inside the product.

Hence, we focused the development of our new enzymes generation in understanding, amplifying and diversifying the effect of the most important enzymatic activities for NSP substrates. In parallel, we deeply investigated the very rich genetic potential for enzymes expression of the strain responsible for the production of Rovabio®. Based on this extensive research and by applying an innovative approach in biotechnology, we boosted the expression not only of one specific activity, but also of a range of targeted enzymes that strain has the potential to produce.

[Feedinfo News Service] Adisseo claims that with this new enzyme generation, customers will benefit from a more than double Return on Investment. Is this applicable to all species?

[Hélène Lionet-Llorca] After a comprehensive evaluation of the nutritional efficacy of this new product, we confirm a consistent breakthrough potential of the product, not only on broilers, but also on other poultry species (turkeys, layers,...) and swine (registration files pending). The translation of this nutritional efficacy on economical benefits comes from the innovative way we take into account the nutritional matrix of the product, which we will soon start to share with our customers and guide them to extract the maximum value of the new enzyme in their feeds. This new product is enlarging the nutritional benefit from energy improvement to total feed digestibility, thus taking into account the essential amino acids and other nutrients of interest. By considering the nutritional matrix of the product in this way, we estimate that the ROI could be doubled, comparing to that observed for the classic reformulation of currently available NSP-enzymes.

[Feedinfo News Service] How long will it take for all existing Rovabio® Excel customers to be supplied with the new generation product? And, can you easily adapt to a situation of sudden increased demand for the product? Also, you mention that this new generation provides simplicity and peace of mind to users, but will this come with an extra cost for them?

[Hélène Lionet-Llorca] The main barrier will definitely be worldwide registration before we start to supply the product to our customers. Nevertheless, Adisseo is prepared and we have all required resources to properly overcome this step. Moreover, Adisseo will keep the same facilities used for Rovabio® Excel production to manufacture our new enzyme. Everything is prepared in fermentation and formulation capacities to adapt to a short-term high demand for the new product, thanks to highly skilled and prepared teams. The launch in Europe will occur in late-2015 and, for the rest of the world, in the beginning of 2016. Until then, we will continue working with nutritionists to actively promote the potential of NSP enzymes in feed formulation as we are convinced that our new enzyme exceeds all others currently available in the market. We believe that the extra cost for our customers will be completely erased by the extra value they will be able to extract from their feed.

[Feedinfo News Service] To conclude, it can be argued that NSP-enzymes are not benefitting from as much media attention as phytase. As a leader in the NSP enzyme market, how can Adisseo shift the market's attention to NSP enzymes?

[Hélène Lionet-Llorca] This is somewhat true and, in our point of view, this market feeling is strongly associated to the fact that no impacting innovation has been proposed for quite a while in the NSP enzyme domain, which has been unable to keep up with the product development observed in the phytase market in recent years. With our new enzyme, we will initiate a revolution in the enzymes market. With our new enzymes solution, we intend to cross all barriers of classical meaning of an NSP-enzyme solution. It is able to address and improve total feed digestibility in an animal, allowing its users to extract the maximum nutritional value.