

A unique xylanase enzyme for consistent, all-around performance

### Improving NSP Digestibility with Xylamax

5 Reasons Xylamax Outperforms Enzyme Blends

# 1. Xylamax is scientifically designed and proven to optimize nutrient release from non-starch polysaccharides (NSPs) in animal feed

- The unique protein structure of Xylamax has an additional side chain which creates better binding to the xylan substrate and has a broader catalytic domain than other xylanase feed additives.
- The structure of Xylamax results in a faster, more efficient break down of xylans in feed grain and the optimal release of nutrients to the bird.
- Unlike Xylamax, xylanases contained in enzyme blends are not specifically designed for high performance in animal nutrition. As a result, xylanases in enzyme blends are unlikely to deliver the consistent high levels of nutrient release and the absorption necessary to significantly improve total energy availability, feed conversion rate and return on investment.

## 2. Xylamax works well in all types of diets typically used in poultry production

- There are two types of xylans:
  - soluble xylans which are more common in wheat and rye
  - insoluble xylans which are more common in corn and soy
- There are two types of xylanases used in animal nutrition:
  - GH10 which works well on soluble xylans
  - GH11 which works well on both soluble and insoluble xylans
- Xylamax is a GH11 type of xylanase which is highly effective in breaking down soluble and insoluble xylans in the grains
  which are primarily used in poultry diets.
- The xylanase enzyme in blends is less likely to be effective in releasing nutrients from all types of grains and diets.







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#### 3. Xylamax provides optimal, economical NSP digestibility

- Xylans and cellulose are the predominant types of NSPs contained in the majority of poultry feed ingredients including corn, soy, wheat, rice bran, barley, and rye.
- In the most typically used poultry diets which contain a combination of wheat and soybean meal or corn and soybean meal, xylans and cellulose together represent 70% of total NSP content.
- Cellulose is not a practical target to break down in poultry as no enzyme system currently exists that would efficiently and cost-effectively fully release glucose from the cellulose content, given the conditions in the chicken gastrointestinal tract.
- The most effective and economical way to optimize nutrient release and uptake in poultry is with the use of a premium quality single xylanase enzyme such as Xylamax.
- · Blends often contain enzymes that do little or nothing to improve animal performance.

#### 4. Xylamax is an uncoated, intrinsically thermostable xylanase

- · Xylamax retains its activity level during the high temperature conditions of pelleting.
- Enzyme blends are often coated to protect the contents from high temperatures of pelleting. A coated product may
  take additional time to dissolve after reaching the animal's gut, thus reducing the amount of time available to digest
  substrates and improve bird performance.
- XylaQuick, a qualitative in-feed colorimetric kit for easy, fast on-site testing is available to confirm the presence and activity of Xylamax.

## 5. Xylamax is designed and manufactured to deliver consistent, predictable performance

- · Xylamax has a guaranteed minimum activity and matrix value necessary to optimally release nutrients encapsulated in NSPs.
- Xylamax is produced under strictly controlled conditions that are GMP and FAMI-QS certified, resulting in consistent product performance.
- Enzyme blends which contain xylanase enzymes may not have a guaranteed minimum activity value that is sufficient to release a significant amount of the nutrients trapped in NSPs.
- Enzyme blends may claim to include several enzymes but only guarantee activity and matrix value for a few of those enzymes.

