

## THE MOST VERSATILE AND EFFECTIVE XYLANASE AVAILABLE FOR SWINE DIETS



### THE PROBLEM

Arabinoxylan makes up more than 50% of non-starch polysaccharide in corn and is the substrate for xylanase

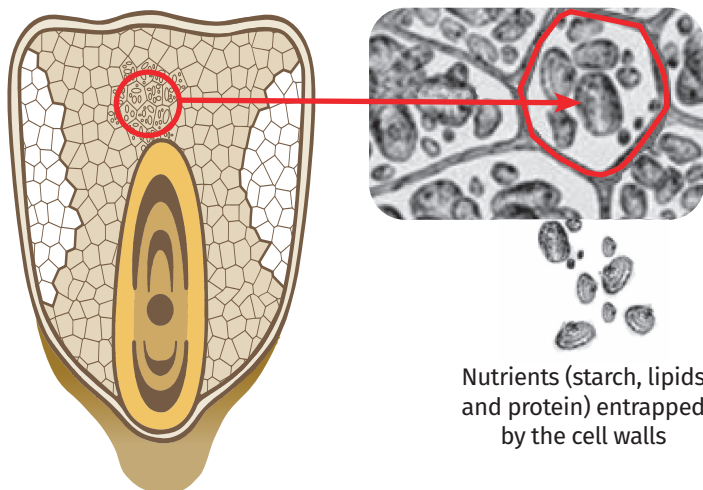
% of DM	Total NSP	Arabinoxylan	% of total
Corn	10	5.2	52
Wheat	12	7.6	63
Barley	18	8.4	50

Total dietary fiber = NSP + lignin



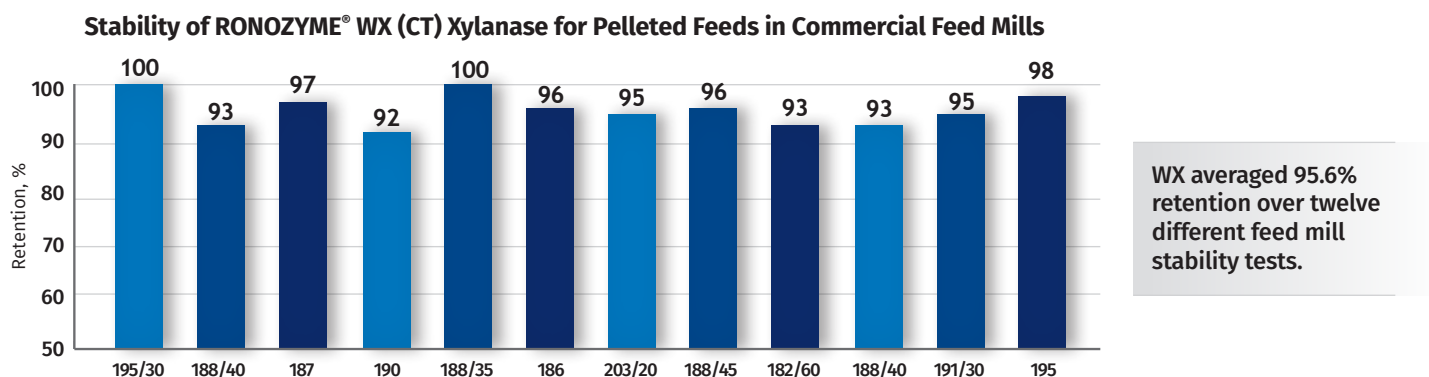
### THE CAGE EFFECT: NUTRIENTS GET TRAPPED INSIDE INTACT CELLS

1. NSP enzymes break down the cells walls
2. More starch, lipids and proteins are released to be digested by endogenous enzymes



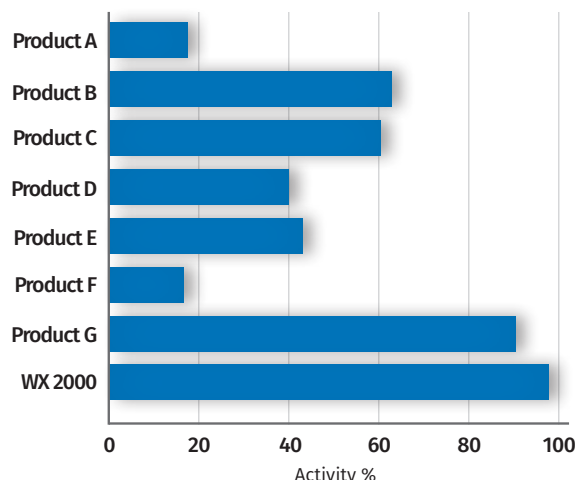
## WX – HARVEST THE ENERGY

WX provides consistent stability and activity for feeds pelleted in commercial feed mills



Each value represents a different commercial feed mill for xylanase stability

### WX Provides Superior Activity Compared to Competitive Xylanases Used in the U.S. Market — Novozymes 2017



### WX Improves Energy Uplift<sup>1</sup>

Two trials, with a total of 1,858 pigs, show consistent energy uplift with the addition of VP and WX.

Trial	Treatment	ME, kcal/kg uplift
Experiment 1	227g/ton RONOZYME® VP + 150 g/ton WX <sup>2</sup>	83 <sup>a</sup>
Experiment 2	227g/ton RONOZYME® VP + 150 g/ton WX <sup>2</sup>	120 <sup>b</sup>

<sup>1</sup>The Effects of a Combination of a Xylanase and Multi Enzyme Non-Starch Polysaccharide Product on Growth Performance of 12-22 kg Pigs. E. D. Frugé, E. L. Hansen, S. A. Hansen, D. M. Compart, J. R. Bergstrom, Hubbard Feeds Inc., Mankato, MN, Compart's Boar Store, Nicollet, MN, DSM Nutritional Products North America, Parsippany, NJ.

<sup>2</sup>All diets were mash corn-SBM, 20% DDGS and 1000 FTU/kg phytase. Trial one included 969 pigs, averaging 11.67 kg. Trial two included 889 pigs, averaging 13.33 kg.

<sup>a</sup>Compared to the caloric efficiency of the negative control (3354 kcal/kg ME)

<sup>b</sup>Compared to the caloric efficiency of the control (5611 kcal/kg gain)

### WX Product Specs

Product form	CT granulate
Usage recommendations	<ul style="list-style-type: none"> <li>• 50 to 100 g/MT (ppm), or 0.10 to 0.20 pounds per ton, of the RONOZYME® WX 2000</li> <li>• 20 to 40 g/MT (ppm), or 0.04 to 0.08 pounds per ton, of the RONOZYME® WX 5000</li> </ul>
Stability	<ul style="list-style-type: none"> <li>• Storage 24 months at RT</li> <li>• 6 months in premix</li> <li>• Recovery at 195°F pelleting temperature &gt;85%</li> <li>• Physical character comparable to other RONOZYME® products</li> </ul>