

Trial Report Summary

India Trial of Xylamax® in Corn-Soy Diets 2016



An evaluation of Xylamax supplementation as replacement for dietary energy and cocktail NSPase in broilers fed corn-soy diets

D. Chandrasekaran¹, S. Krishnan², R. Pandian² and J. Tyus³

¹ Tamil Nadu Veterinary and Animal Sciences University (Retired), Tamil Nadu, India

² Annam Feeds, Research and Development Trial Farm, Namakkal, Tamil Nadu, India

³ BioResource International, Inc., Durham, NC, USA

Introduction

NSPase (non-starch polysaccharide degrading) enzymes have become an integral part of commercial poultry feed for enhancing the efficiency of nutrient utilization by the animal, thereby reducing the cost of production and improving growth performance.

In order to maximize producers' return on investment, flexible dosing options for feed additives are often required. The primary objective of this study was to evaluate the efficacy of 50 g/MT inclusion of Xylamax to replace both metabolizable energy (ME) and a common NSPase cocktail enzyme in standard corn-soy diets fed to commercial broilers.

Key Findings

50 g/MT inclusion of Xylamax outperformed the control diet by replacing at least 65 kcal/kg ME resulting in:

- Increased 42-day body weight by 78 grams per bird
- Improved 42-day weight-adjusted feed conversion by 3.8 points

Xylamax®

A unique xylanase enzyme for consistent, all-around performance

Materials and Methods

160 Cobb 400 straight run chicks were used in a 42-day feeding trial consisting of 2 dietary treatments with 8 replicates per treatment and 10 birds per replicate.

| Treatment | kcal/kg | | |
|---|----------------|------------|-------------|
| | Pre-Starter ME | Starter ME | Finisher ME |
| Positive Control* | 3000 | 3110 | 3200 |
| Positive Control – 65 kcal - NSPase + Xylamax | 2935 | 3045 | 3135 |

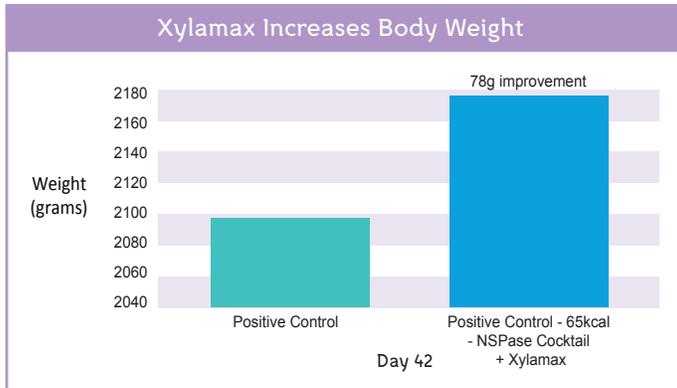
*Including phytase, protease, and common NSPase cocktail enzyme

- All birds were fed corn-soybean meal based diets containing phytase, protease, probiotic and antibiotic growth promoter.
- Dietary energy was adjusted using vegetable oil
- Key parameters evaluated were:
 - Body weight
 - Average daily weight gain
 - Feed conversion rate
 - Average feed cost per unit of body weight gain

Results and Discussion

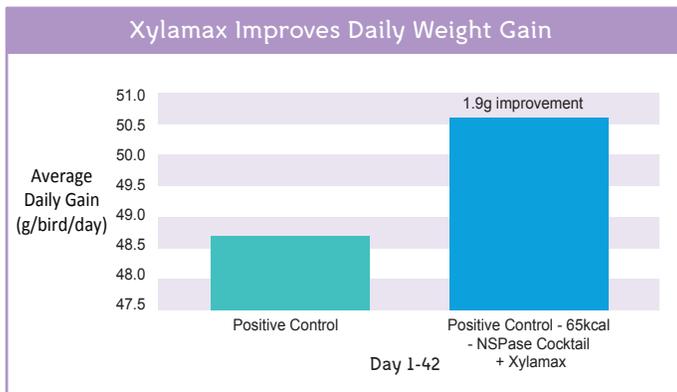
Supplementing reduced-energy broiler diets with Xylamax at 50 g/MT of feed had a positive effect on weight gain and feed efficiency.

42-day body weight increased by 78 grams per bird, compared to a standard energy diet containing a cocktail NSPase.



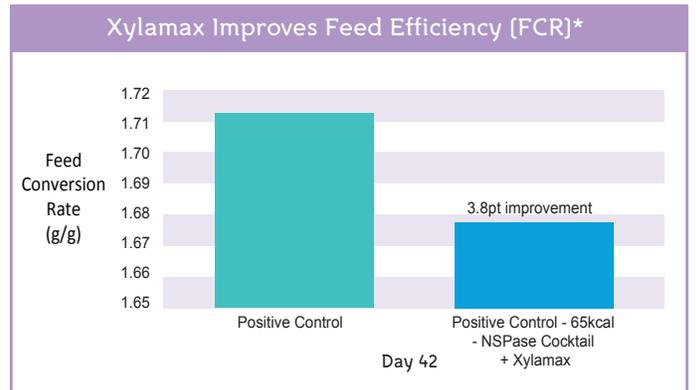
[Tamil Nadu, India 2016]

Average daily weight gain also showed marked improvement.



[Tamil Nadu, India 2016]

42-day weight-corrected feed conversion rate (FCR) improved by 3.8 points, compared to a standard energy diet containing a cocktail NSPase.



*Body weight adjusted to 2kg

[Tamil Nadu, India 2016]

Conclusion

At 50 g/MT feed, Xylamax effectively replaced **both** 65 kcal/kg diet ME **and** the contribution of a cocktail NSPase by:

- Promoting strong average daily weight gain.
- Increasing 42-day body weight by 78 grams per bird
- Improving 42-day weight-corrected feed conversion rate by 3.8 points

At 50 g/MT feed, Xylamax also improved economic value by:

- Reducing the total cost of feed by \$1.35 USD per ton
- Reducing average feed cost per kg of weight gain by \$0.0058 USD from 1 to 42 days of age

| Treatment | Average feed cost per metric ton of feed* | Average feed cost per kg of weight gain* |
|---|---|--|
| Positive Control | \$423.30 | \$0.7355 |
| Positive Control - 65 kcal - NSPase + Xylamax | \$421.95 | \$0.7296 |
| Savings Generated by Xylamax | \$1.350 | \$0.0058 |

*US dollars

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