

## Accepted Manuscript

Title: Pre- and post-pellet whole grain inclusions enhance feed conversion efficiency, energy utilisation and gut integrity in broiler chickens offered wheat-based diets

Author: Ha H. Truong Amy F. Moss Sonia Yun Liu Peter H. Selle



PII: S0377-8401(16)30286-3  
DOI: <http://dx.doi.org/doi:10.1016/j.anifeedsci.2016.12.001>  
Reference: ANIFEE 13681

To appear in: *Animal Feed Science and Technology*

Received date: 27-6-2016  
Revised date: 31-10-2016  
Accepted date: 5-12-2016

Please cite this article as: Truong, Ha H., Moss, Amy F., Liu, Sonia Yun, Selle, Peter H., Pre- and post-pellet whole grain inclusions enhance feed conversion efficiency, energy utilisation and gut integrity in broiler chickens offered wheat-based diets. *Animal Feed Science and Technology* <http://dx.doi.org/10.1016/j.anifeedsci.2016.12.001>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Pre- and post-pellet whole grain inclusions enhance feed conversion efficiency, energy utilisation and gut integrity in broiler chickens offered wheat-based diets

Ha H. Truong<sup>a,b</sup>, Amy F. Moss<sup>a</sup>, Sonia Yun Liu<sup>a</sup> and Peter H. Selle<sup>a\*</sup>

<sup>a</sup>Poultry Research Foundation within The University of Sydney, NSW, Australia.

<sup>b</sup>Poultry CRC, University of New England, Armidale, NSW, Australia.

\*Corresponding author. Tel.: +61 2 9351 1697

Email address: peter.selle@sydney.edu.au (P.H. Selle)

## Highlights

- Whole wheat inclusions at 4.5, 9.0 and 18.0% had substantially greater impacts when added post-pelleting in comparison to pre-pelleting inclusions
- Post-pellet whole wheat inclusions increased relative gizzard weights, reduced gizzard digesta pH and reduced the incidence of dilated proventriculi
- Collectively, post-pellet whole wheat inclusions improved FCR by 4.25%, increased AME by 0.81 MJ and enhanced ME:GE ratios by 6.00% (0.742 versus 0.700)
- Post-pellet whole wheat inclusions collectively reduced distal ileal starch concentrations by 50.4% (7.21 versus 14.53 g/100g).
- This study confirms the advantages of whole grain feeding which appeared to be driven by greater extents of starch digestion allied to heavier relative gizzard weights.

Download English Version:

<https://daneshyari.com/en/article/5538788>

Download Persian Version:

<https://daneshyari.com/article/5538788>

[Daneshyari.com](https://daneshyari.com)