

[Article Navigation](#)

# PSXIV-8 Inclusion of byproducts derived from the process of corn ethanol production in finishing cattle diets

Silvio Antunes, Djonatan Machado, Camila Delveaux Araujo Batalha, Vinícius Gouvêa, Murillo A Meschiatti, João Ventorin, Daniel Antolnelo, James MacDonald, Flavio Santos

**Flavio Santos**

"Luiz de Queiroz" College of Agriculture,  
University of São Paulo, Piracicaba, São Paulo,  
Brazil

**Search for other works by this author on:**

[Oxford Academic](#) [PubMed](#)

[Google Scholar](#)

Supplement\_3, December 2019, Page 436,

Two experiments were conducted to evaluate the performance and metabolism responses of finishing cattle to dietary inclusion of corn ethanol byproducts. All diets were isonitrogenous and contained 15% corn silage, 12% soyhulls, 0.55 to 0.85% urea and 2.25% mineral supplement. Treatments were (dry basis): Control [8% whole cottonseed, 5% soybean meal and 56.9% ground corn (GC)]; High Protein Distillers Grains (HPDG; 10.3% HPDG and 59.65% GC); Dry Distillers Grains plus Solubles (DDBS; 30% DDBS and 39.65% GC); Wet Distillers Brain plus Solubles (WDGS; 30% WDGS and 39.65% GC). In Exp. 1, 268 Nellore bulls were blocked by initial body weight (423.3 kg  $\pm$  36.6 kg), assigned to 44 pens in a randomized complete block design and fed for 110 days. Dry matter intake (DMI) tended ( $P = 0.058$ ) to be greater for DDBS compared with WDGS (11.2 vs. 10.3 kg, respectively). Average daily gain was greater ( $P < 0.05$ ) for DDBS compared with HPDG (1.62 vs 1.45 kg respectively) and tended ( $P = 0.086$ ) to be greater for DDBS compared with control (1.62 vs. 1.48 kg respectively). Hot carcass weight was greater ( $P < 0.05$ ) for DDBS compared with the other treatments (332 vs. 321 kg respectively). Feed efficiency, carcass dressing, ribeye area and back fat thickness were not affected ( $P > 0.05$ ) by treatments. In Exp. 2, four rumen cannulated Nellore steers

(389 ± 37 kg) were used in a 4 × 4 Latin square design. Total tract digestibility of dry matter was greater ( $P < 0.05$ ) for HPDG compared with DDBS (76.8 vs. 68.5% respectively). Rumen acetate:propionate ratio was less ( $P < 0.01$ ) for HPDG and DDBS (2.01) compared to control and WDBS (2.72). The greater HCW of bulls fed DDBS may be the result of its positive effect on DMI and rumen VFA profile.

---

**Issue Section:** [Ruminant Nutrition](#)

This content is only available as a PDF.

© The Author(s) 2019. Published by Oxford University Press on behalf of the American Society of Animal Science. All rights reserved. For permissions, please e-mail: [journals.permissions@oup.com](mailto:journals.permissions@oup.com).

This article is published and distributed under the terms of the Oxford University Press, Standard Journals Publication Model

([https://academic.oup.com/journals/pages/open\\_access/funder\\_policies/chorus/standard\\_publication\\_model](https://academic.oup.com/journals/pages/open_access/funder_policies/chorus/standard_publication_model))

You do not currently have access to this article.

## Sign in

Don't already have an Oxford Academic account? [Register](#)

## Oxford Academic account

Email address / Username <sup>?</sup>

Password

Sign In

[Forgot password?](#)

[Don't have an account?](#)

[Skip to Main Content](#)

Cite Permissions Share ▼

**American Society of Animal Science members**

AMERICAN SOCIETY OF **ANIMAL SCIENCE**[Sign in via society site](#)

## Sign in via your Institution

[Sign in](#)

## Purchase

[Subscription prices and ordering](#)

## Rental



This article is also available for rental through DeepDyve.

[View Metrics](#)

### Email alerts

[Article activity alert](#)[Advance article alerts](#)[New issue alert](#)[Receive exclusive offers and updates](#)[Skip to Main Content](#)[Cite](#) [Permissions](#) [Share ▼](#)

## Related articles in

[Google Scholar](#)

## Citing articles via

[Google Scholar](#)

[Crossref](#)

**Latest** | **Most Read** | **Most Cited**

Effect of anti-inflammatory compounds or antibiotic administration on receiving performance and physiological responses of transported heifers

The welfare and productivity of sows and piglets in group lactation from 7, 10 or 14 days postpartum

January 2020 Infographic

Board invited review: Biology, strategies, and fresh meat consequences of manipulating the fatty acid composition of meat

Dietary phytonutrients and animal health: regulation of immune function during gastrointestinal infections

---

[About Journal of Animal Science](#)

[Editorial Board](#)

[Facebook](#)

[Twitter](#)

[Purchase](#)

[Recommend to Your Librarian](#)

[Advertising and Corporate Services](#)

[Journals Career Network](#)

Journal of  
**ANIMAL SCIENCE**

Online ISSN 1525-3163

Print ISSN 0021-8812

Copyright © 2020 American Society of Animal Science

[About Us](#)

[Contact Us](#)

[Careers](#)

[Help](#)

[Access & Purchase](#)

[Rights & Permissions](#)

[Open Access](#)

## Connect

[Join Our Mailing List](#)

[OUPblog](#)

[Twitter](#)

[Facebook](#)

[YouTube](#)

[Tumblr](#)

## Resources

[Authors](#)

[Librarians](#)

[Societies](#)

[Sponsors & Advertisers](#)

[Press & Media](#)

[Agents](#)

## Explore

[Shop OUP Academic](#)

[Oxford Dictionaries](#)

[Oxford Index](#)

[Epigeum](#)

[OUP Worldwide](#)

[University of Oxford](#)

*Oxford University Press is a department of the University of Oxford. It furthers the University's objective of excellence in research, scholarship, and education by publishing worldwide*

**OXFORD**  
UNIVERSITY PRESS

Copyright © 2020 Oxford University Press

[Cookie Policy](#)

[Privacy Policy](#)

[Legal Notice](#)

[Site Map](#)

[Accessibility](#)

[Get Adobe Reader](#)