

## PUBLICACIÓN EN LA REVISTA DE MAYOR PRESTIGIO EN PRODUCCIÓN ANIMAL.

Investigadores del INIFAP se muestran muy activos en el desarrollo de sus programas doctorales, tal es el caso de la **M.C. Karla Hernández Rodríguez**, investigadora del Campo Experimental La Laguna, quien se encuentra realizando un doctorado en la Facultad de Agricultura y Ciencias Biológicas en la South Dakota State University en Estados Unidos, y recientemente ha publicado parte de su tesis en la revista científica más importante de producción animal (Journal of Dairy Science), su trabajo se llama “Evaluation of carinata meal as a feedstuff for growing dairy heifers: Effects on growth performance, rumen fermentation, and total-tract digestibility of nutrients”. Sin duda un logro importante en su formación.

¡Felicidades Karla!



Journal of Dairy Science

Available online 15 November 2017

In Press, Corrected Proof



### Evaluation of carinata meal as a feedstuff for growing dairy heifers: Effects on growth performance, rumen fermentation, and total-tract digestibility of nutrients

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<https://doi.org/10.3168/jds.2017-13584>

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#### ABSTRACT

Our objective was to determine the effects of feeding **carinata** meal (CRM) compared with **distillers dried grains with solubles** (DDGS) on growth performance, rumen fermentation, and nutrient utilization in peripubertal dairy heifers. A 16-wk randomized block design experiment with 24 Holstein heifers [6.6 ± 0.7 mo and 218 ± 27 kg of body weight (BW)] was conducted. Treatments diets were (1) 10% cold-pressed CRM and (2) 10% DDGS on a dry matter (DM) basis. The remainder of the diets consisted of grass hay, ground **corn**, soybean meal, and mineral mix. Diets were formulated to be isonitrogenous and isocaloric. Heifers were individually fed using a Calan gate feeding system, and the rations were limit-fed at 2.65% of BW on a DM basis to target a 0.8 kg/d of average daily gain. Heifers were weighed every 2 wk and the ration amount offered was adjusted accordingly. Frame sizes, BW, and body condition scores were measured 2 d every 2 wk throughout the study. During wk 12 and 16, rumen fluid samples were collected via **esophageal** tubing for pH, ammonia N, and **volatile fatty acid** analyses. In wk 16, fecal grab samples were collected for apparent total-tract digestibility estimation. Heifer DM intake, BW, average daily gain, and gain:feed were similar between treatments. No differences were observed between treatments in frame measurements or body condition scores. Rumen pH tended to be greater in CRM compared with DDGS. Rumen ammonia N and total volatile fatty acid concentration were not different between treatments. Apparent total-tract digestibility of DM, **neutral detergent fiber**, and acid detergent fiber were decreased in CRM compared with DDGS. A tendency was detected for reduced organic matter digestibility in CRM. No difference was observed between treatments for crude protein total-tract digestibility. However, these differences in total-tract nutrient digestibility were not large enough to influence growth performance. Overall, results demonstrated that growing heifers can be limit-fed diets with 10% CRM and maintain growth performance compared with a control diet containing 10% DDGS.