

2018年12月19日 星期三

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动物营养学报 2012, Vol. 24 Issue (2) :314-321 DOI: 10.3969/j.issn.1006-267x.2012.02.018

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## 玉米脱水酒精糟及其可溶物和维生素E水平对肥育猪生长性能、胴体和肉品质的影响

王红, 石宝明, 单安山, 王连生

东北农业大学动物营养研究所, 哈尔滨 150030

### Effects of Dietary Corn Distillers Dried Grains with Solubles and Vitamin E on Growth Performance, Carcass Characteristics and Meat Quality of Finishing Pigs

WAN Hong, SHAN Anshan, WANG Liansheng

Institute of Animal Nutrition, Northeast Agricultural University, Harbin 150030, China

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**摘要** 本试验旨在研究饲料中玉米脱水酒精糟及其可溶物(DDGS)和维生素E(VE)水平对肥育猪生长性能、胴体和肉品质的影响。采用3×2两因子完全随机试验设计,设3个玉米DDGS水平(0、15%、30%)和2个维生素E水平(10、210 mg/kg)。选取平均体重为(60±2) kg的“杜×长×大”三元杂交肥育猪48头(公母各占1/2),按性别、体重随机分为6个组,每个组8个重复,每个重复1头猪。试验期为42 d。结果表明:1)玉米DDGS水平对肥育猪平均日增重和料重比无显著影响( $P>0.05$ ),对平均日采食量影响极显著( $P=0.006$ ),维生素E水平及玉米DDGS和维生素E的互作对生长性能无显著影响( $P>0.05$ );2)玉米DDGS和维生素E水平及其互作对胴体重、屠宰率、胴体斜长、背膘厚度、板油率和眼肌面积等胴体品质评定指标影响均不显著( $P>0.05$ ),胴体脂肪碘值随饲料中玉米DDGS水平的提高而极显著升高( $P=0.001$ );3)玉米DDGS水平对肌肉pH、肉色、剪切力、滴水损失和大理石评分影响均不显著( $P>0.05$ ),饲料中添加210 mg/kg 维生素E可显著降低肌肉剪切力和滴水损失( $P<0.05$ )。可见,在肥育猪基础饲料中添加15%~30%玉米DDGS和210 mg/kg 维生素E对其生长性能、胴体和肉品质无显著负影响。

**关键词**: 玉米DDGS 维生素E 肥育猪 生长性能 胴体品质 肉品质

**Abstract**: This experiment was conducted to study the effects of dietary corn distillers dried grains with solubles (DDGS) and vitamin E (VE) on growth performance, carcass characteristics and meat quality of finishing pigs. The experiment was designed in a 3×2 factorial arrangement with three corn DDGS levels (0, 15% and 30%) and two VE levels (10 and 210 mg/kg). A total of forty-eight crossbred pigs (Duroc×Landrace×Large) with an average body weight of (60±2) kg were randomly allotted into 6 groups with 8 replicates per group and one pig in each pen. The results showed as follows: 1) different levels of dietary corn DDGS had no significant effects on average daily gain and feed/gain ( $P>0.05$ ). With the increasing of dietary corn DDGS level, average daily feed intake was decreased significantly ( $P=0.006$ ). Diets containing VE and the interaction between DDGS and VE level had no significant effects on growth performance ( $P>0.05$ ). 2) There were no significant effects of dietary DDGS, VE, and DDGS×VE on carcass characteristics, including carcass weight, dressing percentage, carcass length, back fat thickness, leaf lard percentage and longissimus muscle area ( $P>0.05$ ). Iodine value was increased significantly with the increasing of dietary DDGS level ( $P=0.001$ ). 3) Diets containing different levels of corn DDGS had no significant effects on meat quality, such as pH, meat color, shear force, drip loss and marbling score ( $P>0.05$ ), and high level (210 mg/kg) of VE decreased shear force and drip loss significantly ( $P<0.05$ ). In conclusion, diets containing 15%~30% corn DDGS and 210 mg/kg VE have no significant negative influence on growth performance, carcass characteristics and meat quality of finishing pigs.

**Keywords**: corn DDGS, VE, finishing pigs, growth performance, carcass characteristics, meat quality**收稿日期**: 2011-09-08;**基金资助**:

高等学校博士学科点专项科研基金(20092325120008);国家生猪产业技术体系(CARS-36)

**通讯作者** 石宝明,副教授,硕士生导师,E-mail: shibaoming1974@163.com **Email**: shibaoming1974@163.com**作者简介**: 王红(1986—),女,河北张家口人,硕士研究生,研究方向为饲料与畜产品安全。E-mail: wanghong19860205@163.com**引用本文**:

. 玉米脱水酒精糟及其可溶物和维生素E水平对肥育猪生长性能、胴体和肉品质的影响[J]. 动物营养学报, 2012,V24(2): 314-321

. Effects of Dietary Corn Distillers Dried Grains with Solubles and Vitamin E on Growth Performance, Carcass Characteristics and Meat Quality of Finishing Pigs[J]. Chinese Journal of Animal Nutrition, 2012,V24(2): 314-321.

**链接本文**:[http://211.154.163.124/Jweb\\_dwyy/CN/10.3969/j.issn.1006-267x.2012.02.018](http://211.154.163.124/Jweb_dwyy/CN/10.3969/j.issn.1006-267x.2012.02.018) 或[http://211.154.163.124/Jweb\\_dwyy/CN/Y2012/V24/I2/314](http://211.154.163.124/Jweb_dwyy/CN/Y2012/V24/I2/314)

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