into groups of three and given either no Fe injection, or injections of 100 mg Fe from iron dextran on d 10 or d 0. No differences were detected in pig growth, survival, hematocrit, serum iron, total iron binding capacity (TIBC), or percent Fe saturation due to sow gestation diet. Growth over a 20-day lactation period was suppressed in pigs given no Fe injection or an Fe injection on d 10 (P < 0.01 compared with those given injections on d 0). In conclusion, the sources or amounts of supplemental iron fed to sows during the last trimester of gestation altered the piglet’s ability to sequester iron injections. 

关键词: 铁, 猪, 血红蛋白


Five experiments were conducted to evaluate the feeding value of South Dakota grown field peas (variety Carnival) for growing pigs. In exp. 1 and in exp. 2, 96 growing crossbred pigs (initial BW: 22.3 ±1.48 kg and 26.7 ±1.18 kg, respectively) were allotted to one of four treatment groups. In exp. 1, diets containing 0, 6, 12, or 18% peas were fed during the initial 6 wk of the experiment while 0, 12, 24, or 36% field peas were included in the finishing diets. In exp. 2, 0, 12, 24, or 36% peas were included in both the grower and the finisher diets. In both exp., ADG, ADFI, and GF were similar (P > 0.1) between the four treatment groups. At slaughter, larger (P < 0.05) loin were harvested from pigs fed diets containing 12% field peas in the finishing ration (exp. 1) or 12, 24, or 36% field peas (exp. 2). In both exp., the calculated lean meat percentage was similar (P > 0.10) between treatment groups. In exp. 3 and 4, field peas were included in phase 2 diets for nursery pigs (initial BW: 7.88 ±0.72 kg and 7.36 ±0.57 kg, respectively) at levels of 0, 6, 12, or 18% (exp. 3) or 0, 12, 24, or 36% (exp. 4). These diets were offered to the pigs during wk 3-5 post-weaning. In both exp., ADG, ADFI, and GF were similar (P > 0.05) between treatment groups. In exp. 5, the apparent (AID) and standardized (SID) ileal digestibility coefficients of crude protein and amino acids were determined for field peas and soybean meal in six growing barrows (Initial BW: 36.5 ±2.1 kg). AID for Met, Trp, Cys, and Ser were lower (P < 0.05) in field peas than in soybean meal. When calculating SID, only Met was lower (P < 0.05) for field peas than for soybean meal. Based on the results of these exp., it is concluded that South Dakota grown field peas provide a highly digestible source of amino acids that can replace soybean meal in diets for pigs. In phase 2 diets for nursery pigs and in diets for growing and finishing pigs, at least 36% field peas can be included without adverse effects on performance or carcass quality. 

关键词: 高蛋白豆, 增长猪, 氨基酸消化

128 A comparison of swine performance when fed diets containing Roundup Ready® (event NK603) or conventional corn lines. G. Bressner1, Y. Hyun1*, E. Stanisiewski2, G. Hartnell2, and M. Ellis1, 1 University of Illinois at Urbana-Champaign, 2Monsanto Company, St. Louis.

The objective of this study was to compare growth performance and carcass characteristics of growing-finishing pigs fed diets containing a Roundup Ready® corn hybrid (event NK603; line A), compared with a parental control line (line B) and two commercial lines of non-genetically modified corn (lines C and D). The study was carried out as a completely randomized design and compared four corn-line dietary treatments. A three-phase dietary program was used. Diets for the growing phase (30 to 50 kg BW) contained 1.02% total lysine; 18.5 % CP, and 3,370 kcal ME/kg. For the early (50 to 80 kg) and late (80 to 120 kg) finishing phases diets were formulated to contain 0.78 and 0.67 % lysine, 15.0 and 13.5% CP, and 3,383 and 3,395 kcal ME/kg, respectively. All diets were formulated with a fixed level of corn inclusion which was 65, 74, and 77% for the growing and early- and late-finishiing phases, respectively. 

关键词: Roundup Ready, 圆满生长, 蛋白质营养