**Dr. Joel DeRouchey Book Chapters and Journal Articles**

**Book Chapters**

Tokach, M.D., R.D. Goodband, **J.M. DeRouchey**, S.S. Dritz, and J.L. Nelssen. 2012. Feeding and barn management strategies that maximize feed efficiency. In: Feed efficiency in pigs. Ed. J.F. Patience. Wageningen Academic Publishers. The Netherlands.

Carter, S.D., **J.M. DeRouchey,** J.F. Patience, D.J. Meisinger, D.E. Reese, B.T. Richert, M.C. Shannon, H.H. Stein, B. Thaler, E. van Heugten, M.H. Whitney, and C.K. Bear. 2010. National Swine Nutrition Guide tables on nutrient recommendations, ingredient composition, and use rates. National Swine Nutrition Guide. U.S. Pork Center of Excellence. Chapter 9.

**DeRouchey, J.M.,** R.D. Goodband, M.D. Tokach, J.L. Nelssen, and S.S. Dritz. 2010. Nursery swine nutrient recommendations and feeding management. National Swine Nutrition Guide. U.S. Pork Center of Excellence. Chapter 10, pp 65-79.

Fitzgerald, R.F., K.J. Stalder, and **J.M. DeRouchey**. 2010. Cull sow feeding management. National Swine Nutrition Guide. U.S. Pork Center of Excellence. Chapter 16, pp 145-149.

Reese, D.E., **J.M. DeRouchey**, E. van Heugten, L. Johnston, M.H. Whitney, and G. Dahlke. 2010. Example diets for swine. National Swine Nutrition Guide. U.S. Pork Center of Excellence. Chapter 17, pp 150-158.

Patience, J.F. and **J.M. DeRouchey**. 2010. Feed additives for swine-enzymes and phytase. National Swine Nutrition Guide. U.S. Pork Center of Excellence. Chapter 20, pp 184-188.

Reese, D.E., E. van Heugten, J.J. Stein, **J.M. DeRouchey**, J.M. Benz, and J.F. Patience. 2010. Composition and usage rate of feed ingredients for swine diets. National Swine Nutrition Guide. U.S. Pork Center of Excellence. Chapter 26, pp 223-244.

Richert, B.T. and **J.M DeRouchey**. 2010. Swine feed processing and manufacturing. 2010. National Swine Nutrition Guide. U.S. Pork Center of Excellence. Chapter 27, pp 245-251.

Reese, D.E., **J.M. DeRouchey,** and D.J. Meisinger. 2010. Methods of supplying nutrients to swine. 2010. National Swine Nutrition Guide. U.S. Pork Center of Excellence. Chapter 28, pp 252-254.

**DeRouchey, J.M.** and B.T. Richert. 2010. Feeding systems for swine. 2010. National Swine Nutrition Guide. U.S. Pork Center of Excellence. Chapter 29, pp 255-261.

**Journal Articles**

Barnes, J.A., M.D. Tokach, **J.M. DeRouchey,** R.D. Goodband, S.S. Dritz, and J.L. Nelssen. 2013. Effects of standardized ileal digestible tryptophan:lysine ratio in diets contianing 30% dried distillers grains with solubles (DDGS) on finishing pig performance and carcass traits. J. Anim. Sci. 91:3244-3252.

Myers, A.J., R.D. Goodband, M.D. Tokach, S.S. Dritz, **J.M. DeRouchey**, and J.L. Nelssen. 2012. The effects of diet form and feeder design on the growth performance of finishing pigs. J. Anim Sci. 91:3420-3428.

Ying, W., **J.M. DeRouchey**, M.D. Tokach, S.S. Dritz, T.A. Houser, R.D. Goodband, J.L. Nelssen, and J.C. Woodworth. 2013. Effects of dietary L-carnitine and dried distillers grains with solubles on growth, carcass characteristics, and loin and fat quality of growing-finishing pigs. J. Anim. Sci. 91:3211-3219.

Salyer, J.A., **J.M. DeRouchey**, M.D. Tokach, R.D. Goodband, S.S. Dritz, J.L. Nelssen and D. B. Petry. 2012. Effects of dietary wheat middlings, distillers dried grains with solubles, and choice white grease on growth performance, carcass characteristics, and carcass fat quality of finishing pigs J. Anim. Sci. 90:2620-2630.

Bergstrom, J. R., J. L. Nelssen, M. D. Tokach, S. S. Dritz, R. D. Goodband, and **J. M. DeRouchey**. 2012. The effects of two feeder designs and adjustment strategies on the growth performance and carcass characteristics of growing-finishing pigs. J. Anim. Sci. 90:4555-4566.

Bergstrom, J. R., J. L. Nelssen, L. N. Edwards, M. D. Tokach, S. S. Dritz, R. D. Goodband, and **J. M. DeRouchey.** 2012. The effects of feeder design and changing the source of water to a location separate from the wet-dry feeder at 4 or 8 weeks prior to harvest on the growth, feeding behavior, and carcass characteristics of finishing pigs. J. Anim. Sci. 90:4567-4575.

Duttlinger, A. J., **J. M. DeRouchey**, M. D. Tokach, S. S. Dritz, R. D. Goodband, J. L. Nelssen, T. A. Houser, and R. C. Sulabo. 2012. Effects of increasing crude glycerol and dried distillers grains with solubles on growth performance, carcass characteristics, and carcass fat quality of finishing pigs. J. Anim. Sci. 90:840–852.

Myers, A. J., R. D. Goodband, M. D. Tokach, S. S. Dritz, **J. M. DeRouchey,** and J. L. Nelssen. 2012. The effects of feeder adjustment and trough space on growth performance of finishing pigs. J. Anim. Sci:90:4576-4582.

Nemechek, J. E., A. M. Gaines, M. D. Tokach, G. L. Allee, R. D. Goodband, **J. M. DeRouchey,** J. L. Nelssen, J. L. Usry, G. Gourley, and S. S. Dritz. 2012. Evaluation of standardized ileal digestible lysine requirement of nursery pigs from seven to fourteen kilograms.J. Anim. Sci. 90:4380-4390.

Potter. M. L., E. M. Kane, J. R. Bergstrom, S. S. Dritz, M. D. Tokach, **J. M. DeRouchey**, R. D. Goodband, and J. L. Nelssen. 2012. Effects of diet source and vaccination for porcine circovirus type 2 and Mycoplasma hyopneumoniae on nursery pig performance. J. Anim. Sci. 90. 4063-4071.

Potter, M.L., L.M. Tokach, S.S. Dritz, S.C. Henry, **J.M. DeRouchey**, M.D. Tokach, R.D. Goodband, J.L. Nelssen, R.R. Rowland, R.A. Hesse, R. Oberst, J.Anderson, and M. Hays. 2012. Genetic line influences pig growth rate responses to vaccination for porcine circovirus type 2. Swine Health Prod. 20:34-48.

Shelton,  N. W., M. D. Tokach, S. S. Dritz, R. D. Goodband,  J. L. Nelssen, **J. M. DeRouchey**, and J. L. Usry. 2012. Effects of porcine circovirus type 2 vaccine and increasing standardized ileal digestible lysine:ME ratio on growth performance and carcass composition of growing and finishing pigs. J Anim Sci. 90: 361-372.

Benz, J. M., M. D. Tokach, S. S. Dritz, J. L. Nelssen, **J. M. DeRouchey**, R. C. Sulabo, and R. D. Goodband. 2011. Effects of increasing choice white grease in corn- and sorghum-based diets on growth performance, carcass characteristics, and fat quality characteristics of finishing pigs. J. Anim Sci. 89:773-782.

Benz, J. M., M. D. Tokach, S. S. Dritz, J. L. Nelssen, **J. M. DeRouchey**, R. C. Sulabo, and R. D. Goodband. 2011. Effects of dietary iodine value product on growth performance and carcass fat quality of finishing pigs J. Anim Sci. 89:1419-1428.

Benz, J. M., M. D. Tokach, S. S. Dritz, J. L. Nelssen, **J. M. DeRouchey**, R. C. Sulabo, and R. D. Goodband. 2011. Effects of choice white grease and soybean oil on growth performance, carcass characteristics and carcass fat quality of growing-finishing pigs. J. Anim Sci. 89:404-413.

Jacela, J. Y., S. S. Dritz, **J. M. DeRouchey**, M. D. Tokach, R. D. Goodband, and J. L. Nelssen, 2011. Field evaluation of a PCV2 vaccine on finishing pig growth performance and mortality rate in a herd with a history of porcine circovirus disease. J Swine Health Prod. 19(1):10-18.

Jacela, J. Y., **J. M. DeRouchey,** S. S. Dritz, M. D. Tokach, R. D. Goodband, J. L. Nelssen**,** R. C. Sulabo, R. C. Thaler, L. Brandts,D. E. Little, and K. J. Prusa. 2011. Amino acid digestibility and energy content of deoiled (solvent extracted) corn dried distillers grains with solubles for swine and its effects on growth performance and carcass characteristics J. Anim Sci. 89:1817–1829.

Schneider, J.D., M.D. Tokach, S.S. Dritz, R.D. Goodband, J.L. Nelssen, **J.M. DeRouchey** and R.C Sulabo.2011. Effects of restricted feed intake on finishing pigs weighing between 68 and 114 kilograms fed twice or 6 times daily. J. Anim. Sci. 89:3326-3333.

Shelton, N. W., M. D. Tokach, S. S. Dritz, R. D. Goodband, J. L. Nelssen, and **J. M. DeRouchey**. 2011. Effects of increasing dietary standardized ileal digestible lysine:ME ratio for gilts grown in a commercial finshing environment J. Anim Sci. 89:3587-3595.

Shelton, N. W., M. D. Tokach, J. L. Nelssen, R. D. Goodband, S. S. Dritz, **J. M. DeRouchey**, and G. M. Hill. 2011. Effects of copper sulfate, tri-basic copper chloride, and zinc oxide on weanling pig performance. J. Anim Sci. 89:2440-2451.

Sulabo, R. C., C. K. Jones, M. D. Tokach, R. D. Goodband, S. S. Dritz, D. R. Campbell, B. W. Ratliff, **J. M. DeRouchey**, and J. L. Nelssen. 2011. Factors affecting storage stability of various commercial phytase sources. J. Anim Sci. 89:4262–4271.

Benz, J. M., S. K. Linneen, M. D. Tokach, S. S. Dritz, J. L. Nelssen, **J. M. DeRouchey**, R. D. Goodband, R.C Sulabo and K. J. Prusa. 2010. Effects of dried distiller grains with solubles on fat quality of finishing pigs. J. Anim Sci. 88: 3666-3682.

Jones, C. K., M. D. Tokach, S. S. Dritz, B. W. Ratliff, N. L. Horn, R. D. Goodband, **J. M. DeRouchey**, R. C. Sulabo, and J. L. Nelssen. 2010. Efficacy of different commercial phytase enzymes and development of an available phosphorus release curve for *Escherichia coli*-derived phytases in nursery pigs. J. Anim Sci. 88: 3631-3644.

Jacela, J. Y., H. L. Frobose, **J. M. DeRouchey,** M. D. Tokach, S. S. Dritz, R. D. Goodband, and J. L. Nelssen. 2010. Amino acid digestibility and energy concentration of high-protein corn dried distillers grains and high-protein sorghum dried distillers grains with solubles for swine. J. Anim Sci. 88:3617-3623.

Jacela J. Y., **J. M. DeRouchey**, M. D. Tokach, R. D. Goodband, J. L. Nelssen, D. G. Renter, and S. S. Dritz. 2010. Feed additives for swine: Fact sheets – prebiotics and probiotics, and phytogenics. J Swine Health Prod. 18:132-136.

Jacela J. Y., **J. M. DeRouchey**, M. D. Tokach, R. D. Goodband, J. L. Nelssen, D. G. Renter, and S. S. Dritz. 2010. Feed additives for swine: Fact sheets – Phytase and high dietary levels of copper and zinc. J Swine Health Prod. 18:87-91.

Jacela J. Y., **J. M. DeRouchey**, M. D. Tokach, R. D. Goodband, J. L.Nelssen, D. G. Renter, and S. S. Dritz. 2010. Feed additives for swine:Fact sheets - flavors and mold inhibitors, mycotoxin binders, and antioxidants. J Swine Health Prod. 18:27-32.

Jacela, J.Y., S.S. Dritz, **J.M. DeRouchey**, M.D. Tokach, R.D. Goodband, and J.L. Nelssen. 2010. Effects of supplemental enzymes in diets containing dried distillers grains with solubles on finishing pig growth performance. Prof. Anim. Sci. 26:425-434.

Jones,C. K., J. R. Bergstrom, M. D. Tokach, **J. M. DeRouchey**, R. D. Goodband, J. L. Nelssen, and S. S. Dritz. 2010. Efficacy of commercial enzymes in diets containing a variety of levels and sources of dried distillers grains with solubles for nursery pigs. J. Anim Sci. 88: 2084-2091.

Jones, C. K., **J. M. DeRouchey**, J. L. Nelssen, M. D Tokach, S. S. Dritz, and R. D. Goodband. 2010. Effects of fermented soybean meal and specialty animal protein sources on nursery pig performance. J. Anim Sci. 88: 1725-1732.

Neill, C. R., R. D. Goodband, M. D. Tokach, J. L. Nelssen, S. S. Dritz, **J. M. DeRouchey**, C. N. Groesbeck, and K. R. Brown. 2010. Effects of intermittent ractopamine HCl use on pig growth performance in late finishing. Prof. Anim. Sci. 29:239-242.

Schneider, J. D., M. D. Tokach, S. S. Dritz, J. L. Nelssen, **J. M. DeRouchey**, and R. D. Goodband. 2010. Determining the effect of lysine:calorie ratio on growth performance of 10 to 20 kilogram nursery pigs of two different genotypes. J. Anim Sci. 88:137-146.

Sulabo, R. C., J. Y. Jacela, M. D. Tokach, S. S. Dritz, R. D. Goodband, **J. M. DeRouchey**, and J. L. Nelssen. 2010. Effects of lactation feed intake and creep feeding on sow and piglet performance. J. Anim Sci. 88:3145-3153.

Sulabo, R. C., M. D. Tokach, S. S. Dritz, R. D. Goodband, **J. M. DeRouchey**, and J. L. Nelssen. 2010. Effects of varying creep feeding duration on the proportion of pigs consuming creep feed and neonatal pig performance. J. Anim Sci. 88:3154-3162.

Sulabo, R.C., M.D. Tokach, **J. M. DeRouchey**, S. S. Dritz, R. D. Goodband, J. L. Nelssen, 2010. Effects of creep feeder design and feed accessibility on the proportion of pigs consuming creep feed and preweaning pig performance. J.Swine Health & Prod. 18:174-181.

Sulabo, R. C., M. D. Tokach, **J. M. DeRouchey**,S. S. Dritz, R. D. Goodband, and J. L. Nelssen. 2010. Influence of feed flavors and nursery diet complexity on preweaning and nursery pig performance J. Anim Sci. 88:3918-3926.

Vaillant, G. C., G. M. Pierzynski, J. M. Ham, and **J. M. DeRouchey**. 2009. Nutrient accumulation below cattle feedlot pens in Kansas. J. Environ. Qual. 38: 909-918.

Jacela, J.Y., **J. M. DeRouchey,** M. D. Tokach, R. D. Goodband, J. L. Nelssen, D. G. Renter, and S. S. Dritz. 2009. Feed additive for swine: Fact sheets - acidifiers and antibiotics. J. Swine Health Prod. 17(5):270-275.

Jacela, J.Y., **J. M. DeRouchey,** M. D. Tokach, R. D. Goodband, J. L. Nelssen, D. G. Renter, and S. S. Dritz. 2009. Feed additive for swine: Fact sheets - carcass modifiers, carbohydrase-degrading enzymes and proteases, and anthelmintics. J. Swine Health Prod. 17(6):270-277.

Groesbeck, C. N., **J. M. DeRouchey**, M. D. Tokach**,** R. D. Goodband, S. S. Dritz, and J. L. Nelssen. 2009. Effects of irradiation of feed ingredients added to meal or pelleted diets on growth performance of weanling pigs J. Anim Sci. 87:3997-4002.

Schneider, J.D. M. D. Tokach, S. S. Dritz, J. L. Nelssen, **J. M. DeRouchey**, and R. D. Goodband. J. Anim Sci. 2010 88: 137-146.

Main, R.G., S.S. Dritz, M.D. Tokach, R.D. Goodband, J.L. Nelssen and **J.M. DeRouchey**. 2009. Effects of ractopamine dose and treatment period on pig performance in a commercial finishing facility. J. Swine Health Prod. 17:134-139.

Frantz, N.Z., M.D. Tokach, R.D. Goodband, S.S. Dritz, **J.M. DeRouchey**, J.L. Nelssen and C.L. Jones.  2009.  The optimal standardized ileal digestible lysine and total sulfur amino acid requirement for finishing pigs fed ractopamine hydrochloride. Prof Anim. Sci. 25:161-168.

Harper, A.F., **J.M. DeRouchey**, Glanville, T.G., Meeker, D.L., Straw, B.E. 2008 Swine carcass disposal options for routine and catastrophic mortality. Council for Agricultural Science and Technology (CAST). Issue paper 39. CAST, Ames, Iowa.

Linneen, S.K, **J.M. DeRouchey**, S.S. Dritz, R.D. Goodband, M.D. Tokach, and J.L. Nelssen, 2008. Effects of dried distiller grains with solubles on growing and finishing pig performance in a commercial environment. J. Anim Sci. 86:1579-1587.

Linneen, S.K, **J.M. DeRouchey**, R.D. Goodband, M.D. Tokach, S.S. Dritz, J.L. Nelssen and J.L. Snow. 2008. Evaluation of NutriDense low phytate corn and added fat in growing and finishing swine diets. J. Anim Sci. 86:1556-1561.

Schneider, J. D., M. D. Tokach, S. S. Dritz, J. L. Nelssen**, J. M. DeRouchey**, and R. D. Goodband, 2008. Determining the accuracy of gestation feed drops. 2008. J. Swine Health and Prod. 16:298-303.

Main, R.G., S.S. Dritz, M.D. Tokach, R.D. Goodband, J.L. Nelssen, and **J.M. DeRouchey**. 2008. Effects of feeding growing pigs less or more than their lysine requirement in early and late finishing on overall performance. Prof. Anim. Sci.24:76-87.

Frantz, N. Z., G. A. Andrews, M. D. Tokach, J. L. Nelssen, R. D. Goodband, **J. M. DeRouchey**, and S. S. Dritz. 2008. Effect of dietary nutrients on osteochondrosis lesions and cartilage properties in pigs. Am. J. Vet. Res. 69:617-24.

Groesbeck, C. N., L. J. McKinney **J. M. DeRouchey**, M. D. Tokach, R. D.Goodband, S. S. Dritz, J. L. Nelssen, A. W. Duttlinger, A. C. Fahrenholz, and K. C. Behnke. 2008. Effect of crude glycerol on pellet mill production and nursery pig growth performance. J. Anim. Sci. 86:2228-2236.

Hanni, S. M., **J. M. DeRouchey**, M. D. Tokach, R. D. Goodband, J. L. Nelssen, and S. S. Dritz. 2007. The effects of dietary chicory and reduced nutrient diets on composition and odor of stored swine manure. Prof. Anim. Sci. 23:438-447.

**Gottlob, R. O., J. M. DeRouchey, M. D. Tokach, J. L. Nelssen, R. D. Goodband, and S. S. Dritz. 2007.** Comparison of Whey Protein Concentrate and Spray-dried Plasma Protein in Diets for Weanling Pigs. Prof. Anim. Sci. 23:116-122.

Lenehan, N. A., **J. M. DeRouchey**, R. D. Goodband, M. D. Tokach, S. S. Dritz, J. L. Nelssen, C. N. Groesbeck, and K. R. Lawrence. 2007. **Evaluation of soy protein concentrates in nursery pig diets.** J. Anim. Sci. 85: 3013-3021.

**Gottlob, R. O., S. S. Dritz, M. D. Tokach, J. M. DeRouchey, R. D. Goodband, J. L. Nelssen, C. W. Hastad,** C. N. Groesbeck, **and** C. R. Neill. **2007.** Effects of water-based antimicrobials on growth performance of weanling pigs. J. Swine Health Prod. 15(4):198-205.

Linneen, S. K., S. S. Dritz, R. D. Goodband, M. D. Tokach, **J. M. DeRouchey**, and J. L. Nelssen. 2007. Effects of frequent out-of-feed events on growth performance of nursery and grow-finish pigs. J. Anim Sci. 2007;85 2043-2047.

Groesbeck, C.N., R.D. Goodband, M.D. Tokach, S.S. Dritz, J.L. Nelssen, **J.M. DeRouchey**, and C.R. Neill. 2007. Diet mixing time affects nursery pig performance. J. Anim. Sci. 85:1793-1798.

Neill, C. R., M. D. Tokach, J. L. Nelssen, R.D. Goodband **J.M. DeRouchey**, S.S. Dritz, C.N. Groesbeck, and K.R. Brown. 2007. Effects of afternoon or morning weaning protocols on pig growth performance. J. Swine Health Prod. 15(1):19-21.

Groesbeck, C. N., R. D. Goodband, M. D. Tokach, S. S. Dritz, J. L. Nelssen, and **J. M. DeRouchey.** 2007. **Effects of pantothenic acid on growth performance and carcass characteristics of growing-finishing pigs fed diets with or without ractopamine hydrochloride.** J Anim Sci 85:2492-2497.

Schneider, J.D., M.D. Tokach, S.S. Dritz, J.L. Nelssen, **J.M. DeRouchey**, and R.D. Goodband. 2007. Effects of feeding schedule on body condition, aggressiveness, and reproductive failure in group-housed sows. J. Anim. Sci. 2007 85:3462-3469.

 Webster, M.J.,  R.D. Goodband, M.D. Tokach, J.L. Nelssen, S.S. Dritz, J.A. Unruh, K.R. Brown, D.E. Real, **J.M. DeRouchey,** J.C. Woodworth, C.N. Groesbeck, and T.A. Marsteller. 2007. Interactive Effects Between Ractopamine Hydrochloride and Dietary Lysine on Finishing Pig Growth Performance, Carcass Characteristics, Pork Quality, and Tissue Accretion. Prof. Anim. Sci. 23:597-611.

Frantz, N.Z. M.D. Tokach, S.S. Dritz, J.L. Usry, R.D. Goodband, **J.M. DeRouchey**, J.L. Nelssen, M.U. Steidinger, and D.C. Kendall. 2007. Effects of replacing soybean meal with increasing crystalline amino acids and subsequent change in diet net energy on growing pig performance. J. Anim. Sci. (In Press).

Gottlob, R. O., J. M. DeRouchey, M. D. Tokach, R. D. Goodband, S. S. Dritz, J. L. Nelssen, C. W. Hastad, and D. A. Knabe. 2006. Apparent and standardized ileal amino acid digestibility and digestible, metabolizable, and net energy of specialty protein sources for nursery pig diets. J. Anim. Sci., 84:1396-1402.

Groesbeck, C. N., R. D. Goodband, M. D. Tokach, S. S. Dritz, J. L. Nelssen, and **J. M. DeRouchey**. 2006. Particle size, mill type, and added fat influence angle of repose of ground corn. Prof. Anim. Sci. 22:120-125.

Neill, C. R., J. L. Nelssen, M. D. Tokach, R.D. Goodband, **J.M. DeRouchey**, S.S. Dritz, C.N. Groesbeck, and K.R. Brown. 2006. Effects of oregano oil on growth performance of nursery pigs. J. Swine Health Prod. 14:312-314.

**DeRouchey, J**., J. Harner, J. Murphy. 2005. Catastrophic Mortality Composting: Is it safe and effective? J. App. Poult. Res. 14:214-216.

Lenehan, N. A., **J. M. DeRouchey**, T. T. Marston, and G. L. Marchin. 2005. Concentrations of fecal bacteria and nutrients in soil surrounding round-bale feeding sites. J. Anim. Sci. 83:1673-1679.

Keegan, T.P., S.S. Dritz, J.L. Nelssen, **J.M. DeRouchey**, M. D. Tokach, and R. D. Goodband. 2005. Effects of In-feed Antimicrobial Alternatives and Antimicrobials on Nursery Pig Performance and Weight Variation. J. Swine Health Prod. 13(1):12-18.

Hastad, C.W., M.D. Tokach, R.D. Goodband, J.L. Nelssen, S.S. Dritz, **J.M. DeRouche**y, and C.L. Jones. 2005. Comparison of yellow dent and NutriDense corn hybrids in swine diets. J. Anim. Sci. 83 2624-2631

**DeRouchey**, J. M., M. D. Tokach, J. L. Nelssen, R. D. Goodband, S. S. Dritz, J. C. Woodworth, B. W. James, M. J. Webster, and C. W. Hastad. 2004. **Evaluation of methods to reduce bacteria concentrations in spray-dried animal plasma and its effects on nursery pig performance**. J. Anim. Sci. 82:250-261.

**DeRouchey**, **J. M.**, J. D. Hancock, R. H. Hines, C. A. Maloney, D. J. Lee, H. Cao, D. W. Dean, and J. S. Park. 2004. **Effects of rancidity and free fatty acids in choice white grease on growth performance and nutrient digestibility in weanling pigs.** J. Anim. Sci. 82: 2937-2944.

Keegan, T. P., **J. M.** **DeRouchey**, J. L. Nelssen, M. D. Tokach, R. D. Goodband, and S. S. Dritz. 2004. **The effects of poultry meal source and ash level on nursery pig performance**. J. Anim. Sci. 82:2750-2756.

Hastad, C. W., S. S. Dritz, M. D. Tokach, R. D. Goodband, J. L. Nelssen, **J. M.** **DeRouchey**, R. D. Boyd, and M. E. Johnston. 2004. **Phosphorus requirements of growing-finishing pigs reared in a commercial environment.** J. Anim. Sci. 82: 2945-2952.

Real, D.E., J. L. Nelssen, M. D. Tokach, R. D. Goodband, S. S. Dritz, **J. M. DeRouchey**, B. W. James, and E. Alonso. 2004. Effects of increasing dietary niacin on weanling pig performance. Prof. Anim. Sci. 20:353-357.

Lawrence, K. R., R. D. Goodband, M. D. Tokach, S. S. Dritz, J. L. Nelssen, and **J. M. DeRouchey**. 2004. Comparison of wheat gluten and spray-dried animal plasma in diets for nursery pigs. J. Anim. Sci. 82:3635-3645.

Lawrence, K. R., R. D. Goodband, M. D. Tokach, S. S. Dritz, J. L. Nelssen, **J. M. DeRouchey**, and C. W. Hastad. 2004. Effects of soybean meal sources and level on growth performance of weanling pigs. Prof. Anim. Sci. 20:237-245.

**DeRouchey, J.M**., J.D. Hancock, R.H. Hines, K.R. Cummings, D.J. Lee, C.A. Maloney, D.W. Dean, J.S. Park, and H.Cao. 2003. Effects of dietary electrolyte balance on the chemistry of blood and urine in lactating sows and sow litter performance. J. Anim Sci. 81:3067-3074.

**DeRouchey, J.M., M. D. Tokach, J. L. Nelssen, R. D. Goodband, S. S. Dritz, J. C. Woodworth, M. J. Webster, and B. W. James. Effects of blood meal pH and irradiation on nursery pig performance. J. Anim. Sci. 2003. 81:1013-1022.**

**DeRouchey, J.M**., M. D. Tokach, J. L. Nelssen R. D. Goodband, S.S. Dritz, J. C. Woodworth, B. W. James, and D. E. Real. 2003. Effect of Irradiation of Individual Feed Ingredients and Complete Diet on Nursery Pig Performance. J. Anim. Sci. 81:1799-1805.

Lawrence, K. R., C. W. Hastad, R. D. Goodband, M. D. Tokach, S. S. Dritz, J. L. Nelssen, **J. M. DeRouchey**, and M. J. Webster. 2003. Effects of soybean meal particle size on growth performance of nursery pigs. J. Anim Sci. 81: 2118-2122.

**DeRouchey, J. M.,** R. D. Goodband, J. L. Nelssen, M. D. Tokach, S. S. Dritz, and J. P. Murphy. 2002. Nutrient Composition of Kansas Swine Lagoons and Hoop Barn Manure. 2002. J. Anim. Sci. 80:2051-2061.

**DeRouchey, J.M.,** M. D. Tokach, J. L. Nelssen R. D. Goodband, S.S. Dritz, J. C. Woodworth, and B. W. James. 2002. Comparison of Spray-dried Blood Meal and Blood Cells in Diets for Nursery Pigs. J. Anim. Sci. 80:2879-2886.

Real, D. E., J. L. Nelssen, J.A. Unruh, M. D. Tokach, R. D. Goodband, S. S. Dritz, **J. M. DeRouchey**, and E. Alonso. 2002. Effects of increasing dietary niacin on growth performance and meat quality in finishing pigs reared in two different environments. J Anim. Sci. 80:3203.