

เอกสารอ้างอิง

- กรมควบคุมมลพิษ. 2545. กระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม. มาตรฐานเพื่อควบคุมการระบายน้ำทิ้งจากฟาร์มสุกร. [ระบบออนไลน์]. แหล่งที่มา <http://pcdv1.pcd.go.th/> (24 สิงหาคม 2548)
- กัตติกา วุฒิจารี. 2547. องค์ประกอบของสิ่งขับถ่ายและสมรรถนะการผลิตของสุกรระยะรุ่นถึงขุน โดยใช้อาหารโปรตีนต่ำ. วิทยานิพนธ์วิทยาศาสตรมหาบัณฑิต (เกษตรศาสตร์), มหาวิทยาลัยเชียงใหม่, เชียงใหม่.
- ชัยวัฒน์ ต่อสกุลแก้ว. 2541. สรีรวิทยาทางเดินอาหาร. กรุงเทพฯ : เทกซ์ แอนด์ เจอร์นัล พับลิเคชัน จำกัด. 348 น.
- เทอดชัย เวียรศิลป์ และทัศนีย์ อภิชาติสงรวง 2531. การผลิตท่อเก็บตัวอย่างจากซิลิโคนเพื่อใช้ในสัตว์เคี้ยวเอื้อง. วารสารการเกษตร. (1) : 8-18.
- นภา หลิมรัตน์. 2543. เมทาบอลิซึมของโปรตีน. ใน พจน์ ศรีบุญเรือง, โสพิศ วงศ์คำ, พัชรี บุญศิริ (บก.), ตำราชีวเคมี. หน้า 329-346. พิมพ์ครั้งที่ 3. ขอนแก่น : โรงพิมพ์มหาวิทยาลัยขอนแก่น.
- นีโลบล เนืองตัน. 2542. คุณค่า คุณ electrolyte และคุณกรด-ด่าง. ใน นีโลบล เนืองตัน (บก.), ชิวเคมี เล่ม 2 คณะแพทยศาสตร์ศิริราชพยาบาล. หน้า 770-834. พิมพ์ครั้งที่ 5. กรุงเทพฯ : บริษัทธรรมสาร จำกัด.
- พันทิพา พงษ์เพ็ญจันทร์. 2539. หลักการอาหารสัตว์ เล่ม 1. กรุงเทพฯ : โอเดียนสโตร์. 207 น.
- ภิญโญ พานิชพันธ์, พิณทิพ รื่นวงษา, ศศิวิมล แสงวงผล, จงดี โตลิ้ม และยุพา ตั้งสากุล. 2545. นิเวศวิทยาและสิ่งแวดล้อม. สถาบันนวัตกรรมและพัฒนากระบวนการเรียนรู้. คณะวิทยาศาสตร์, มหาวิทยาลัยมหิดล. [ระบบออนไลน์]. แหล่งที่มา http://www.il.mahidol.ac.th/course/ecology/chapter1/chapter1_nitrogen1.htm
- มนตรี จุฬวัฒน์ทล. 2530. ชิวเคมี. คณะวิทยาศาสตร์, มหาวิทยาลัยมหิดล, กรุงเทพฯ. 651น.
- วินัส ลิพหกุล, สุภาณี พุทธเดชาคุ้ม และถนอมขวัญ ทวีบุรณ์. 2545. โภชนศาสตร์ทางการพยาบาล. พิมพ์ครั้งที่ 2. กรุงเทพฯ : บุญศิริการพิมพ์. 406 น.
- วันดี ทาตระกูล. 2546. สุกรและการผลิตสุกร. เชียงใหม่ : นพบุรีการพิมพ์. 374 น.
- สัญญา ร้อยสมมุติ. 2530. ความรู้เบื้องต้นเกี่ยวกับน้ำและอิเล็กโทรไลต์ ภาวะกรด-ด่างในร่างกายและการประเมินผู้ป่วย. ภาควิชาสรีรวิทยา คณะวิทยาศาสตร์, มหาวิทยาลัยมหิดล, กรุงเทพฯ. 141 น.

- สัญญา ร้อยสมมุติ. 2535. ของเหลวในร่างกายมนุษย์. พิมพ์ครั้งที่ 2. กรุงเทพฯ : โรงพิมพ์เรือนแก้ว
การพิมพ์. 278 น.
- เสกสม อุตมางกูร, วิโรรัตน์ เจริญจิตร, อรประพันธ์ พุ่มอินทร์ และอรรณวุฒิ พลายนบุญ. 2540.
การศึกษาความสัมพันธ์ของแร่ธาตุในอาหารสัตว์ปีก 1. ปริมาณธาตุโซเดียม
โพแทสเซียมและคลอรีนในวัตถุดิบอาหารสัตว์. การประชุมวิชาการครั้งที่ 35 ระหว่าง
วันที่ 3-4 กุมภาพันธ์ 2540. มหาวิทยาลัยเกษตรศาสตร์, กรุงเทพฯ. หน้า 320-326.
- อุดม บุญยทรรศน. 2526. ตำราสารวิทยาไต : ระบบไต สมดุลย์ของน้ำ สมดุลย์ของเกลือแร่
สมดุลย์ของกรด-ด่าง. ภาควิชาสรีรวิทยา คณะแพทยศาสตร์, มหาวิทยาลัยเชียงใหม่,
เชียงใหม่. 229 น.
- Aarnink, A. J. A. and T. T. Cahn. 1999. Ammonium emission from pig houses as
affected by dietary composition. *Feed Mix.*, 7(3) : 23-27.
- Aarnink, A. J. A., P. Hoeksma and E. N. J. van Ouwerkerk. 1993. Factors affecting
ammonium concentration in slurry from fattening pigs. *In* : M. W. A.
Verstegen, L. A. den Hartog, G. J. M. van Kempen and J. H. M. Metz
(Eds.). *Proceeding of the first international symposium on "Nitrogen flow
in pig production and environmental consequences"*. Pudoc, Wageningen
(Doorwerth), Netherlands. Pp: 413-415.
- Albin, D. M., J. E. Wubben, M. R. Smiricky, and V. M. Gabert. 2001. The effect of
feed intake on ileal rate of passage and apparent amino acid digestibility
determined with or without correction factors in pigs. *J. Anim. Sci.*,
79 : 1250-1258.
- Allee, G. L., and D. H. Baker. 1970. Limiting nitrogenous factors in corn protein for
adult female swine. *J. Anim. Sci.*, 30 : 748-752.
- AOAC, 2000. *Official Method of Analysis of AOAC International*. 17th ed. AOAC
International. Maryland.
- Austic, R. E. and C. C. Calvert. 1981. Nutritional interrelationships of electrolytes and
amino acids. *Fed Proc.* 40:63.
- Austic, R. E. and J. F. Patience. 1988. Undetermined anion in poultry diets: influence
on acid-base balance, metabolism and physiological performance.
Crit. Rev. in Poultry. Biol. 1 : 315-345.

- Baker, D. H., D. H. Becker, H. W. Norton, A. H. Jenson, and B. G. Harmon. 1969. Lysine imbalance of corn protein in the growing pig. *J. Anim. Sci.*, 28 : 23–26.
- Baker, D. H., J. D. Hahn, T. K. Chung, and Y. Han. 1993. Nutrition and growth : The concept and application of an ideal protein for swine growth. *In* : G. R. Hollis (Ed.). *Growth of the Pig*. Pp. 133-139. Wallingford : CAB International.
- Batterham, B. S. 1994. Ileal digestibilities of amino acids in feedstuffs for pigs. *In* : J. P. F. D’Mello (Ed.). *Amino Acids in Farm Animal Nutrition*. Pp. 113-131. Wallingford : CAB International.
- Bercovici, D. and M. F. Fuller, 1995. Industrial amino acids in non-ruminant animal nutrition. *In* : R. J. Wallace and A. Chesson (Eds.). *Biotechnology in Animal Feeds and Animal Feeding*. Pp. 93-113. Weinheim : VCH Press.
- Berry, T. H., G. E. Combs, H. D. Wallace, and R. C. Robbins. 1966. Responses of growing pigs to alterations in the amino acid pattern of isolated soybean protein. *J. Anim. Sci.*, 25 : 722-728.
- Brenner, B., F. L. Coe, and F. C. Rector, Jr. 1987. *Renal Physiology in Health and Disease*. Philadelphia : W.B. Saunders Company. 190 p.
- Buttery, P. J. and J. P. F. D’Mello. 1994. Amino acids metabolism in farm animals: An overview. *In* : J. P. F. D’Mello (Ed.) *Amino Acids in Farm Animal Nutrition*. Pp. 1-10. Wallingford : CAB International.
- Cahn, T. T., A. J. A. Aarnink, J. B. Schutte, A. Sutton, D. J. Langhout, and M. W. A Verstegen. 1998. Dietary protein affects nitrogen excretion and ammonia emission from slurry of growing-finishing pigs. *Livest. Prod. Sci.*, 56 : 181-191.
- Campbell, R. G. and A. C. Dunkin. 1983. The influence of dietary protein and energy intake on the performance, body composition and energy utilisation of pigs growing from 7 to 19 kg. *Anim. Prod.*, 36 : 185-192.
- Chan, J. C. M. 1974. The influence of dietary intake on endogenous acid production. *Nutr. Metab.* 16 : 1-9.
- Cunha, T. J. 1977. *Swine Feeding and Nutrition*. New York : Academic Press. 352 p.

- Darragh, A. J., and S. M. Hodgkinson. 2000. Quantifying the digestibility of dietary protein. *J. Nutr.* 130 : 1850-1856.
- De Lange, K., M. Nyachoti, and S. Birkett. 1999. Manipulation of diets to minimize the contribution to environmental pollution. *Advance in Pork Prod.* 10 : 173-186.
- De Lange, C F. M., W. C. Sauer, and W. B. Souffrant. 1989. The effect of protein status of the pig on the recovery and amino acid composition of the endogenous protein in digesta collected from the distal ileum. *J. of Anim. Sci.*, 67 : 755-762.
- Drage S. and D. Wilkinson. Acid-Base balance. 2001. World Federation of Societies of Anaesthesiologists. [Online] Available: http://www.nda.ox.ac.uk/wfsa/html/u13/u1312_01.htm.
- Dourmad, J. Y., D. Guillou, and J. Noblet. 1992. Development of a calculation model for predicting the amount of N excreted by the pig: effect of feeding, physiological stage and performance. *Livest. Prod. Sci.*, 31 : 95-107.
- DuBose, T. D. 2002. Acid-Base and Electrolyte Disorders : a companion to Brenner & Rector's the Kidney. Philadelphia : W.B. Saunders Company. 547 p.
- Easter, R. A. and T. D. Tanksley, Jr. 1973. A technique for re-entrant ileocecal cannulation of swine. *J. Anim. Sci.*, 36 : 1099-1103.
- Fan, M. Z., W. C. Sauer, R. T. Hardin and K. A. Lien. 1994. Deamination of apparent ileal amino acid digestibility in pigs: Effect of dietary amino acid level. *J. Anim. Sci.*, 72 : 2851-2859.
- Figuroa, J. L., A. J. Lewis, P. S. Miller, R. L. Fischer, R. S. Gomez and R. M. Diedrichsen. 2000. Nitrogen metabolism and growth performance of gilts fed standard corn-soybean meal diets or low-crude protein, amino acid-supplemented diets. *J. Anim. Sci.*, 80 : 2911-2919
- Froseth, J. A., P. K. Ku, G. W. Bergen and E. R. Miller. 1983. Effects of dietary sodium level on the response to supplemental potassium of pigs fed a low lysine diet. *J. Anim. Sci.*, (Suppl. 1) : 245.
- Fuller, M. F., R. Mc William, T. C. Wang, and L. R. Giles. 1989. The optimum amino acid pattern for growing pigs. 2. Requirements for maintenance and for tissue protein accretion. *Br. J. Nutr.* 62 : 255-277.

- Fuller, M. F. 1994. Amino acid requirements for maintenance, body protein accretion and reproduction in pigs. *In* : J. P. F. D'Mello (Ed.). Amino Acids in Farm Animal Nutrition. Pp 155. Wallingford : CAB International.
- Furuya, S., and Y. Kaji. 1992. The effects of feed intake and purified cellulose on the endogenous ileal amino acid flow in growing pigs. *Br. J. Nutr.* 68 : 463-472.
- Gabert, V. M., H. Jørgensen, and C. M. Nyachoti. 2001. Bioavailability of amino acids in feed stuffs for swine. *In* : A. J. Lewis and L. L. Southern (Eds.). Swine Nutrition, 2nd ed. Pp 152-177. Boca Raton : CRC Press.
- Gatel, F. and F. Grosjean. 1992. Effect of protein content of the diet on nitrogen excretion by pigs. *Livest. Prod. Sci.*, 31 : 109-120.
- Graham, H., P. Aman , R. K. Newman , C.W. Newman. 1985. Use of a nylon-bag technique for pig feed digestibility studies. *Br. J. Nutr.*, 54(3) : 719-26.
- Guidotti G. G. and G. C. Gazzola. 1992. Amino acid transporters : systematic approach and principles of control. *In* : M. S. Kilberg and D. Häusinger (Eds.). Mammalian Amino Acid Transport. Pp. 3-29. New York : Plenum Press.
- Haydon. K. D. and J.W. West. 1990. Effect of dietary eletrolyte balace on nutrient digestibility determined at the end of the small intestine and over the total digestive tract in growing pigs. *J. Anim. Sci.*, 68 : 3687–3693.
- Haydon. K. D., J. W. West, and M. N. McCarter. 1990. Effect of dietary electrolyte balance on performance and blood parameters of growing–finishing swine fed in high ambient temperatures. *J. Anim. Sci.*, 68 : 2400–2406.
- Jongbloed, A. W. and N. P. Lenis. 1992. Alteration of nutrition as a means to reduce environmental pollution by pigs. *Livest. Prod. Sci.*, 31 : 75-94.
- Jongbloed, A. W., and N. P. Lenis. 1998. Environmental concerns about animal manure. *J. Anim. Sci.*, 76: 2641-2648.
- Just, A., H. Jørgensen and J. A. Fernandez. 1985. Correlation of protein deposited in growing female pigs to ileal and fecal digestible crude protein and amino acids. *Livest. Prod. Sci.*, 12 : 145-159.

- Kephart, K. B. and G. W. Sherritt. 1990. Performance and nutrient balance in growing swine fed low-protein diets supplemented with amino acids and potassium. *J. Anim. Sci.*, 68 : 1999-2008.
- Kerr, B. J., F. K. McKeith, and R. A. Easter. 1995. Effect of performance and carcass characteristics of nursery to finisher pigs fed reduced crude protein, amino acid-supplemented diets. *J. Anim. Sci.*, 73 : 433-440.
- Köhler, T., J. Huisman, L. A. den Hartog, and R. Mosenthin. 1990. Comparison of different digesta collection methods to determine the apparent digestibilities of the nutrients at the terminal ileum in pigs. *J. Sci. Food Agric.*, 53 : 465-475.
- Krebs, H. A. 1964. The metabolic fate of amino acids. *In* : H.N. Munro and J. B. Allison (Ed). *Mammalian protein metabolism*. Pp. 125-170. London : Academic Press .
- Langer, S. and M. F. Fuller. 2000. Interactions among the branched chain amino acids and their effects on methionine utilization in growing pigs: effects on nitrogen retention and amino acid utilization. *Brit. J. of Nutr.* 83 : 43-48.
- Le Bellego, L. L., J. V. Milgen, S. Dubois, and J. Noblet. 2001. Energy utilization of low-protein diets in growing pigs. *J. Anim. Sci.*, 79 : 1259-1271.
- Leibholz, J. M., J. T. McCall, V. W. Hays and V. C. Speer. 1966. Potassium, protein and amino acid relationships in swine. *J. Anim. Sci.*, 25 : 37.
- Leibholz, J., R. J. Love, Y. Mollah, and R. R. Carter. 1986. The absorption of dietary L-lysine and extruded L-lysine in pigs. *Anim. Feed Sci. Technol.*, 15 : 141.
- Leibholz, J. 1991. A rapid assay for measurement of protein digestion to the ileum of pigs by the use of a mobile nylon bag technique. *Anim. Feed Sci. Technol.*, 33 : 209-219.
- Lenis, N. P., H. T. M. van Diepen, P. Bikker, A. W. Jongbloed, and J. van der Meulen. 1999. Effect of the ratio between essential and nonessential amino acids in the diet on utilization of nitrogen and amino acids by growing pigs. *J. Anim. Sci.*, 77 : 1777-1787.
- Lewis, A. J. 2001. Amino acids in swine nutrition. *In* : A. J. Lewis and L. L. Southern (Eds). *Swine Nutrition*, 2nd ed. Pp. 131-150. Boca Raton : CRC Press.

- Liu, H., G. L. Allee, K. J. Touchette, J. W. Frank, and J. D. Spencer. 2000. Effect of reducing protein and adding amino acids on performance, carcass characteristics and nitrogen excretion and valine requirement of early-finisher barrows. *J. Anim. Sci.*, 78 (Suppl. 2) : 69. (Abstr.).
- Lopez, J., R. D. Goodband, G. L. Allee., G. W. Jesse, J. L. Nelssen, M. D. Tokach, D. Spiers, and B. A. Becker. 1994. The effect of diets formulated on an ideal protein basis on growth performance, carcass characteristics, and thermal balance of finishing gilts housed in a hot, thermal environment. *J. Anim. Sci.*, 72 : 367-379.
- Low, A. G. 1985. Amino acid use by growing pig. *In* : D. J. A. Cole and W. Haresign (eds). *Recent Development in Pig Nutrition*. Pp. 87-112. London : Butterworths.
- Low, A. G., and T. Zebrowska. 1989. Digestion in pigs. *In* : H. D. Bock, B. O. Eggum, A. G. Low, O. Stimon, and T. Zebrowska (Eds.). *Protein Metabolism in Farm Animals: Evaluation, Digestion, Absorption, and Metabolism*. Pp. 53-63. Berlin : Oxford University Press.
- Low, A. G. 1990. Protein evaluation in pigs and poultry. *In* : J. Wiseman and D. J. A. Cole (eds). *Feedstuff Evaluation*. Pp. 6-114. London : Butterworths.
- Madubuike, F. N. 1980. Nutritional interrelationships of minerals and basic amino acids in growing pigs. Ph.D. Thesis. Cornell University, Ithaca, NY.
- McDonald, P., R. A. Edwards, J. F. D. Greenhalgh and C. A. Morgan. 1995. *Animal Nutrition*, 5th ed . England : Longman Scientific and Technical. 607 p.
- Miller, E. R., J. Skomial, P. K. Ku and M. G. Hogberg. 1981. Supplemental potassium in low lysine diets of swine. *J. Anim. Sci.*, 53 (Suppl. 1) : 90.
- Miller, E. R., P. K. Ku, N. R. Combs and D. E. Ullrey. 1984. Continued studies of the lysine sparing potential of organic salts of potassium in swine diets. *J. Anim. Sci.*, 59 (Suppl. 1) : 96.
- Mongin, P. 1981. Recent advances in dietary anion cation balance in poultry. *In* : W. Haresign and D. J. A. Cole (Eds). *Recent Advances in Animal Nutrition*. Pp. 109-119. London : Butterworths.

- Moughan, P. J., and S. M. Rutherford. 1990. Endogenous flow of total lysine and other amino acids at the distal ileum of the protein or peptide-fed rat: The chemical labelling of gelatine protein by transformation of lysine to homoarginine. *J. Sci. Food Agric.*, 52 : 179–192.
- Moughan, P. J. and A. Donkoh. 1991. The effect of dietary crude protein content on apparent and true ileal nitrogen and amino acids digestibilities. *Br. J. Nutr.* 72 : 59-68.
- Moughan, P. J., and G. Schuttart. 1991. Composition of nitrogen containing fractions in digesta from the distal ileum of pigs fed a protein-free diet. *J. Nutr.* 121 : 1570-1574.
- Mroz, Z., G. C. M. Bakker, A. W. Jongbloed, R. A. Dekker, R. Jongbloed, and A. van Beers. 1996. Apparent digestibility of nutrients in diets with different energy density, as estimated by direct and marker methods for pigs with or without ileo-cecal cannulas. *J. Anim. Sci.* 74 : 403-412.
- Myers, W. D., P. A. Ludden, V. Nayigihugu, and B. W. Hess. 2004. Technical Note: A procedure for the preparation and quantitative analysis of samples for titanium dioxide *J. Anim. Sci.*, 82 : 179–183
- Neshiem, M. C., R. M. Leach, Jr., T. R. Zielger and J. A. Serafin. 1964. Interrelationship between dietary levels of sodium, chloride, and potassium. *J. Nutr.*, 84 : 361.
- NRC. 1998. *Nutrient Requirements of Swine*, 10th ed. Washington DC : National Academy Press. 198 p.
- Otto, E. R., M. Yokoyama, P. K. Ku, N. K. Amest, and N. L. Trottier. 2003. Nitrogen balance and ileal amino acid digestibility in growing pigs fed diets reduced in protein concentration. *J. Anim. Sci.*, 81 : 1743-1753.
- Patience, J. F., R. E. Austic and R. D. Boyd. 1987. Effects of dietary electrolyte balance on growth and acid–base status in swine. *J. Anim. Sci.*, 64 : 457.
- Patience, J. F. 1990. A review of the role of acid–base balance in amino acid nutrition. *J. Anim. Sci.*, 68 : 398–408.
- Pond, W. G., D. C. Church, and K. R. Pond. 1995. *Basic Animal Nutrition and Feeding*, 4th ed. New York : John Wiley and Sons. 615 p.

- Reeds, P. J. and W. P. T. Jame. 1983. Nutrition : The changing scene. *Lancet*. 12 : 571-574.
- Ritter, W. F. 2001. Nonpoint source pollution and livestock manure management. *In* : W. F. Ritter and A. Shirmohammadi (Eds). *Agricultural Nonpoint Source Pollution*. Pp: 135-169. Boca Raton : Lewis Publishers.
- Ritter, W. F. and L. Bergstrom. 2001. Nitrogen and water quality. *In* : W. F. Ritter and A. Shirmohammadi (Eds). *Agricultural Nonpoint Source Pollution*. Pp. 59-89. Boca Raton : Lewis Publishers.
- SAS. 2001. SAS for Linear Models. A Guide to ANOVA and GML Procedure. Institute Inc., SAS/STAT Software: Changes and Enhancements, Release 8.2, Cary, NC
- Sauer, W. C., S. C. Stothers, and R. J. Parker. 1977. Apparent and true availabilities of amino acids in wheat andmilling by-products for growing pigs. *Can. J. Anim. Sci.*, 57 : 775-784.
- Sauer, W. C., H. Jorgensen, and R. Berzines. 1983. A modified nylon bag technique for determining the apparent protein digestibility in feedstuffs of pigs. *Can. J. Anim. Sci.*, 62 : 233-237.
- Sauer, W. C., L. A. den Hartog, J. Huisman, P. van Leeuwen, and C. F. M. de Lange. 1989. The evaluation of the mobile nylon bag technique for determining the apparent protein digestibility in a wide variety of feedstuffs for pigs. *J. Anim. Sci.*, 67 : 432-440.
- Sauer, W. C. and K. de Lange. 1992. Novel methods for determining protein and amino acid digestibilities in feed stuffs. *In* : S. Nissen (Ed). *Modern Methods in Protein Nutrition and Metabolism*. Pp. 87-120. San Diego : Academic Press.
- Schwartz, A. B. 1977. Acid-Base and Electrolyte Balance : Normal Regulation and Clinical Disorders. A. B. Schwartz, H. Lyons (Eds.) New York : Grune & Stratton. 320 p.
- Shriver, J. A., S. D. Carter, L. A. Pettey and B. W. Senne. 2000. Effect of adding fiber sources to low protein, amino acid-supplemented diets on nitrogen excretion and performance of finishing pigs. *J. Anim. Sci.*, 78 (Suppl. 2) : 168 (Abstr.).

- Steel, J. C., and J. H. Torrie. 1980. Principles and Procedures of Statistics : A Biometrical Approach, 2nd ed. New York : McGraw-Hill.
- Stein, H. H., C. F. Shipley, and R. A. Easter. 1998. Technical note: A technique for inserting a T-cannula into the distal ileum of pregnant sows. *J. Anim. Sci.*, 76 : 1433-1436.
- Sutton, A. L., K. B. Kephart, M. W. A. Verstegen, T. T. Canh, and P. J. Hobbs. 1999. Potential for reduction of odorous compounds in swine manure through diet modification. *J. Anim. Sci.*, 77 : 430-439.
- Swine research report 41. 2003. Low CP diet formulated on a NE basis support equivalent performance of growing-finishing pigs. Ajinomoto animal nutrition. [online]. Available : <http://www.lysine.com/new/Technical%20Reports/Swine/SRR41.pdf>. (26 June 2005)
- Tanksley, T. D., Jr., and D. A. Knabe. 1984. Ileal digestibilities of amino acids in pigs feeds and their use in formulating diet. *In* : W. Haresign and D. J. A. Cole (Eds). *Recent Advance in Animal Nutrition*. Pp. 75-94. London : Butterworths.
- Tuitoek, K., L. G. Young, C. F. de Lange and B. J. Kerr. 1997. The effect of reducing excess dietary amino acids on growing-finishing pig performance: an evaluation of ideal protein concept. *J. Anim. Sci.*, 75(6) : 1575 -1583.
- Van Leeuwen, P., D. J. van Kleef, G. J. M. van Kempen, J. Huisman, and M. W. A. Verstegen. 1991. The Post-Valve T-Caecum cannulation technique in pigs applicated to determine the digestibility of amino acid in maize, groundnut and sunflower meal. *J. Anim. Physiol. Anim. Nutr.*, 65 : 183-193.
- Van Wijik, H. J., P. J. Moughan, L. M. Hodgkinson, P. P. Jansen, and G. Pearson. 1998. Variation in apparent and true ileal amino acid digestibility in barley using a rat model. *Anim. Feed. Sci. Technol.*, 76 : 9-22.
- Wang, T. C. and M. F. Fuller. 1989. The optimum dietary amino acid pattern for growing pigs. 1. Experiments by amino acid delation. *Br. J. Nutr.*, 62 : 77-89.
- Wang, T. C. and M. F. Fuller. 1990. The effect of plan of nutrition of the optimum dietary amino acid pattern for growing pigs. *Anim. Prod.* 50 : 155-164.
- West, J. W. 1987. Role of electrolytes in ruminant nutrition and feeding. *Proc. Georgia Nutr. Conf.*, p. 150.

- Whittemore, C. T. 1993. *The Science and Practice of Pig Production*. England : Longman Scientific and Technical. 661 p.
- Winje, M. E., A. E. Harper, D.A. Benton, R. E. Boldt, and C. A. Elvehjem. 1954. Effect of dietary amino acid balance on fat deposition in the livers of rats fed low protein diets. *J. Nutr.*, 54 : 155-156.
- Yen, H. T., D. J. A. Cole, and D. Lewis. 1986. Amino acid requirements of growing pigs. 8. The response of pigs from 50 to 90 kg live weight to dietary ideal protein. *Anim. Prod.* 43 : 155-165.
- Yin, Y.-L., R.-L. Huang, and H.-Y. Zhong. 1993. Comparison of ileorectal anastomosis and the conventional method for the measurement of ileal digestibility of protein sources and mixed diets in growing pigs. *Anim. Feed Sci and Technol.*, 42 : 297-308.
- Yin, Y.-L., H.-Y. Zhong, and R.-L. Huang. 1995. Determination of the apparent ileal digestibility of protein and amino acid in feedstuffs and mixed diets for growing-finishing pigs with the mobile nylon bag technique. *Asian-Australasian J. Anim. Sci.*, 8 : 433-441.
- Yin, Y.-L., R.-L. Huang, H.-Y. Zhong, T.J. Li, W.B. Souffrant, and C.F.M. de Lange. 2002. Evaluation of mobile nylon bag technique for determining apparent ileal digestibilities of protein and amino acids in growing pigs. *J. Anim. Sci.*, 80 : 409-420
- Yuanlong, P., P. K. Bebder, M. Akers, and K. E. Webb Jr. 1996. Methionine-containing peptides can be used as methionine sources for protein accretion in cultured C2C12 and MAC-T cells. *J. Nutri.*, 126 : 232-241.
- Zaloga, G. P. 1990. Physiological effects of peptide-based enteral for muls. *Nutr.Clin. Prac.*, 5 : 231-237.
- Zimmerman, D. R. 1982. Lysine and potassium supplemented in pig starter diets. *J. Anim. Sci.*, 55 (Suppl. 1) : 96.