

## Index of Authors

	PAGE
ABLETT Richard F., TAYLOR Matthew J. & SELIVONCHICK Daniel P. The effect of high-protein and high-carbohydrate diets on [ <sup>125</sup> I]iodoinsulin binding in skeletal muscle plasma membranes and isolated hepatocytes of rainbow trout ( <i>Salmo gairdneri</i> ). <i>see</i> KNOX D., COWEY C.B. & ADRON J.W.	129
ADRON J.W. <i>see</i> KNOX D., COWEY C.B. & ADRON J.W. Studies on the nutrition of rainbow trout ( <i>Salmo gairdneri</i> ). Magnesium deficiency: the effect of feeding with a Mg-supplemented diet.	121
AKSNES A. & NJAA L.R. Absorption of methionine and methionine sulphoxide in rat intestine and the effect of glutathione.	583
ANDERSSON H., NÄVERT B., BINGHAM S.A., ENGLYST H.N. & CUMMINGS J.H. The effects of breads containing similar amounts of phytate but different amounts of wheat bran on calcium, zinc and iron balance in man.	503
AOYAMA Yoritaka, SAKAIDA Kazuhiro, YOSHIDA Akira & ASHIDA Kiyoshi Effects on liver and serum lipids of dietary supplements of methionine and excess lysine given to previously-starved rats. <i>see</i> AYAMA Yoritaka, SAKAIDA Kazuhiro, YOSHIDA Akira & ASHIDA Kiyoshi	627
ASHIDA Kiyoshi Effects on liver and serum lipids of dietary supplements of methionine and excess lysine given to previously-starved rats.	627
BAIRD G.D., VAN DER WALT J.G. & BERGMAN E.N. Whole-body metabolism of glucose and lactate in productive sheep and cows. <i>see</i> VAN DER WALT J.G., BAIRD G.D. & BERGMAN E.N.	249
BAIRD G.D. Tissue glucose and lactate metabolism and interconversions in pregnant and lactating sheep.	267
BANNISTER D.W., O'NEILL Iris E. & WHITEHEAD C.C. The effect of biotin deficiency and dietary protein content on lipogenesis, gluconeogenesis and related enzyme activities in chick liver.	291
BARDON T. & FIORAMONTI J. Nature of the effects of bran on digestive transit time in pigs.	685
BARRY T.N., MILLAR K.R., BOND G. & DUNCAN S.J. Copper metabolism in growing sheep given kale ( <i>Brassica oleracea</i> ) and ryegrass ( <i>Lolium perenne</i> )-clover ( <i>Trifolium repens</i> ) fresh forage diets.	281
BAYLEY Henry S. <i>see</i> KIM Kyu-II, McMILLAN Ian & BAYLEY Henry S. Determination of amino acid requirements of young pigs using an indicator amino acid.	369
BAYLEY Henry S. <i>see</i> KIM Kyu-II & BAYLEY Henry S. Amino acid oxidation by young pigs receiving diets with varying levels of sulphur amino acids.	383
BAYLEY Henry S. <i>see</i> KIM Kyu-II, ELLIOTT James I. & BAYLEY Henry S. Oxidation of an indicator amino acid by young pigs receiving diets with varying levels of lysine or threonine, and an assessment of amino acid requirements.	391
BENDER David A. Effects of a dietary excess of leucine on the metabolism of tryptophan in the rat: a mechanism for the pellagragenic action of leucine.	25
BENDER David A. Effects of oestradiol and vitamin B <sub>6</sub> on tryptophan metabolism in the rat: implications for the interpretation of the tryptophan load test for vitamin B <sub>6</sub> nutritional status.	33
BENITO Manuel <i>see</i> CASCALES Carmen, BENITO Manuel, CASCALES Maria, CALDÉS Trinidad & SANTOS-RUIZ Angel The effect of chronic ethanol administration on lipogenesis in liver and adipose tissue in the rat.	549
BERGMAN E.N. <i>see</i> BAIRD G.D., VAN DER WALT J.G. & BERGMAN E.N. Whole-body metabolism of glucose and lactate in productive sheep and cows.	249
BERGMAN E.N. <i>see</i> VAN DER WALT J.G., BAIRD G.D. & BERGMAN E.N. Tissue glucose and lactate metabolism and interconversions in pregnant and lactating sheep.	267
BINES J.A. & MORANT S.V. The effect of body condition on metabolic changes associated with intake of food by the cow.	81
BINGHAM S.A. <i>see</i> DAUNCEY M.J. & BINGHAM S.A. Dependence of 24 h energy expenditure in man on the composition of the nutrient intake.	1
BINGHAM S.A. <i>see</i> ANDERSSON H., NÄVERT B., BINGHAM S.A., ENGLYST H.N. & CUMMINGS J.H. The effects of breads containing similar amounts of phytate but different amounts of wheat bran on calcium, zinc and iron balance in man.	503

	PAGE
BLACKBURN N.A. <i>see</i> GEE Jennifer M., BLACKBURN N.A. & JOHNSON I.T. The influence of guar gum on intestinal cholesterol transport in the rat.	215
BLAKE J.S., SALTER D.N. & SMITH R.H. Incorporation of nitrogen into rumen bacterial fractions of steers given protein- and urea-containing diets. Ammonia assimilation into intracellular bacterial amino acids.	769
BOBERG J. <i>see</i> GUSTAFSSON Inga-Britt, BOBERG J., KARLSTRÖM B., LITHELL H. & VESSBY B. Similar serum lipoprotein reductions by lipid-lowering diets with different polyunsaturated:saturated fat values.	531
BOGUNJOKO Funke E., NEALE R.J. & LEDWARD D.A. Availability of iron from chicken meat and liver given to rats.	511
BOND G. <i>see</i> BARRY T.N., MILLAR K.R., BOND G. & DUNCAN S.J. Copper metabolism in growing sheep given kale ( <i>Brassica oleracea</i> ) and ryegrass ( <i>Lolium perenne</i> )-clover ( <i>Trifolium repens</i> ) fresh forage diets.	281
BRAGANZA J.M. <i>see</i> JAMISON M.H., SHARMA H., BRAGANZA J.M. & CASE R.M. The influence of pancreatic juice on $^{64}\text{Cu}$ absorption in the rat.	113
BRAITHWAITE G.D. Calcium and phosphorus requirements of the ewe during pregnancy and lactation. 1. Calcium.	711
BRAITHWAITE G.D. Calcium and phosphorus requirements of the ewe during pregnancy and lactation. 2. Phosphorus.	723
BROWN D.S. <i>see</i> STORM E., BROWN D.S. & ØRSKOV E.R. The nutritive value of rumen micro-organisms in ruminants. 3. The digestion of microbial amino and nucleic acids in, and losses of endogenous nitrogen from, the small intestine of sheep.	479
BRYDON W.G. <i>see</i> EASTWOOD M.A., ROBERTSON J.A., BRYDON W.G. & MACDONALD Dorothy Measurement of water-holding properties of fibre and their faecal bulking ability in man.	539
BUTTERY P.J. <i>see</i> WILSON Stephen, MACRAE J.C. & BUTTERY P.J. Glucose production and utilization in non-pregnant, pregnant and lactating ewes.	303
BUTTERY Peter J. <i>see</i> SINNETT-SMITH Patrick A., DUMELOW Nicola W. & BUTTERY Peter J. Effects of trenbolone acetate and zeranol on protein metabolism in male castrate and female lambs.	225
CAFANTARIS B. <i>see</i> RAAB L., CAFANTARIS B., JILG T. & MENKE K.H. Rumen protein degradation and biosynthesis. 1. A new method for determination of protein degradation in rumen fluid in vitro.	569
CALDÉS Trinidad <i>see</i> CASCALES Carmen, BENITO Manuel, CASCALES María, CALDÉS Trinidad & SANTOS-RUIZ Angel The effect of chronic ethanol administration on lipogenesis in liver and adipose tissue in the rat.	549
CAMPBELL R.G. & DUNKIN A.C. The influence of protein nutrition in early life on growth and development of the pig. 1. Effects on growth performance and body composition.	605
CAMPBELL R.G. & DUNKIN A.C. The influence of protein nutrition in early life on growth and development of the pig. 2. Effects on the cellularity of muscle and subcutaneous adipose tissue.	619
CASCALES Carmen, BENITO Manuel, CASCALES María, CALDÉS Trinidad & SANTOS-RUIZ Angel The effect of chronic ethanol administration on lipogenesis in liver and adipose tissue in the rat.	549
CASCALES María <i>see</i> CASCALES Carmen, BENITO Manuel, CASCALES María, CALDÉS Trinidad & SANTOS-RUIZ Angel The effect of chronic ethanol administration on lipogenesis in liver and adipose tissue in the rat.	549
CASE R.M. <i>see</i> JAMISON M.H., SHARMA H., BRAGANZA J.M. & CASE R.M. The influence of pancreatic juice on $^{64}\text{Cu}$ absorption in the rat.	113
CHRISTENSEN Merrill J., JANGHBORANI Morteza, STEINKE Fred H., ISTFAN Nawfal & YOUNG Vernon R. Simultaneous determination of absorption of selenium from poultry meat and selenite in young men: application of a triple stable-isotope method.	43
COOPER John R. & GOWING Helen S. Mammalian small intestinal phytase (EC 3.1.3.8).	673
COREA S.M.X. <i>see</i> HETTIARACHCHY Navam S., SRI KANTHA Sachi S. & COREA S.M.X. The effect of oral contraceptive therapy and of pregnancy on serum folate levels of rural Sri Lankan women.	495
COWEY C.B. <i>see</i> KNOX D., COWEY C.B. & ADRON J.W. Studies on the nutrition of rainbow trout ( <i>Salmo gairdneri</i> ). Magnesium deficiency: the effect of feeding with a Mg-supplemented diet.	121
CUMMINGS J.H. <i>see</i> ANDERSSON H., NÄVERT B., BINGHAM S.A., ENGLYST H.N. & CUMMINGS J.H. The effects of breads containing similar amounts of phytate but different amounts of wheat bran on calcium, zinc and iron balance in man.	503
DAUNCEY M.J. & BINGHAM S.A. Dependence of 24 h energy expenditure in man on the composition of the nutrient intake.	1

## Index of Authors

793

## PAGE

DIPLOCK Anthony T. <i>see</i> XU GUANG-LU & DIPLOCK Anthony T.	Glutathione peroxidase ( <i>EC</i> 1.11.1.9), glutathione-S-transferase ( <i>EC</i> 2.5.1.13), superoxide dismutase ( <i>EC</i> 1.15.1.1) and catalase ( <i>EC</i> 1.11.1.6) activities in tissues of ducklings deprived of vitamin E and selenium.	437
DIXON R.M. & NOLAN J.V.	Studies of the large intestine of sheep. 3. Nitrogen kinetics in sheep given chopped lucerne ( <i>Medicago sativa</i> ) hay.	757
DONOGHUE Susan, KRONFELD David S. & SKLAN David	Retinol homeostasis in lambs given low and high intakes of vitamin A.	235
DUMELOW Nicola W. <i>see</i> SINNETT-SMITH Patrick A., DUMELOW Nicola W. & BUTTERY Peter J.	Effects of trenbolone acetate and zeranol on protein metabolism in male castrate and female lambs.	225
DUNCAN L. <i>see</i> MALTIN C.A., DUNCAN L., WILSON A.B. & HESKETH J.E.	Effect of zinc deficiency on muscle fibre type frequencies in the post-weanling rat.	597
DUNCAN S.J. <i>see</i> BARRY T.N., MILLAR K.R., BOND G. & DUNCAN S.J.	Copper metabolism in growing sheep given kale ( <i>Brassica oleracea</i> ) and ryegrass ( <i>Lolium perenne</i> )-clover ( <i>Trifolium repens</i> ) fresh forage diets.	281
DUNKIN A.C. <i>see</i> CAMPBELL R.G. & DUNKIN A.C.	The influence of protein nutrition in early life on growth and development of the pig. 1. Effects on growth performance and body composition.	605
DUNKIN A.C. <i>see</i> CAMPBELL R.G. & DUNKIN A.C.	The influence of protein nutrition in early life on growth and development of the pig. 2. Effects on the cellularity of muscle and subcutaneous adipose tissue.	619
DVRIN A. <i>see</i> NITSAN Zafra, DVRIN A. & NIR I.	Protein, essential amino acids and glycine requirements of the growing gosling ( <i>Anser cireneus</i> ).	455
EASTWOOD M.A., ROBERTSON J.A., BRYDON W.G. & MACDONALD Dorothy	Measurement of water-holding properties of fibre and their faecal bulking ability in man.	539
EASTWOOD M.A. <i>see</i> MCKAY Linda F. & EASTWOOD M.A.	The influence of dietary fibre on caecal metabolism in the rat.	679
EGGUM B.O., PEDERSEN Birthe & JACOBSEN Ingeborg	The influence of dietary tea, coffee and cocoa on protein and energy utilization of soya-bean meal and barley in rats.	197
ELLIOTT James I. <i>see</i> KIM Kyu-II, ELLIOTT James I. & BAYLEY Henry S.	Oxidation of an indicator amino acid by young pigs receiving diets with varying levels of lysine or threonine, and an assessment of amino acid requirements.	391
ENGLISH P.R. <i>see</i> ZOIOPoulos P.E., TOPPS J.H. & ENGLISH P.R.	Losses in weight and body water in sows after weaning.	163
ENGLYST H.N. <i>see</i> ANDERSSON H., NÄVERT B., BINGHAM S.A., ENGLYST H.N. & CUMMINGS J.H.	The effects of breads containing similar amounts of phytate but different amounts of wheat bran on calcium, zinc and iron balance in man.	503
FAHEY JR George C. <i>see</i> JUNG Hans-Joachim G., FAHEY JR George C. & MERCHEN Neal R.	Effects of ruminant digestion and metabolism on phenolic monomers of forages.	637
FAHMY S.T.M. <i>see</i> ØRSKOV E.R., MACLEOD N.A., FAHMY S.T.M., ISTASSE L. & HOVELL F.D. DEB.	Investigation of nitrogen balance in dairy cows and steers nourished by intragastric infusion. Effects of submaintenance energy input with or without protein.	99
FAIRWEATHER-TAIT Susan J.	Studies on the availability of iron in potatoes.	15
FAIRWEATHER-TAIT Susan J., MINSKI Margaret J. & RICHARDSON D.P.	Iron absorption from a malted cocoa drink fortified with ferric orthophosphate using the stable isotope $^{58}\text{Fe}$ as an extrinsic label.	51
FIORAMONTI J. <i>see</i> BARDON T. & FIORAMONTI J.	Nature of the effects of bran on digestive transit time in pigs.	685
FISHER Anne <i>see</i> HILLMAN Lybus, PETERS Sue, FISHER Anne & POMARE E.W.	Differing effects of pectin, cellulose and lignin on stool pH, transit time and weight.	189
GEE Jennifer M., BLACKBURN N.A. & JOHNSON I.T.	The influence of guar gum on intestinal cholesterol transport in the rat.	215
GOODALL E.D. <i>see</i> SUTTIE J.M., GOODALL E.D., PENNIE K. & KAY R.N.B.	Winter food restriction and summer compensation in red deer stags ( <i>Cervus elaphus</i> ).	737
GOODLAD R.A. & WRIGHT N.A.	Effects of addition of kaolin or cellulose to an elemental diet on intestinal cell proliferation in the mouse.	91
GOWING Helen S. <i>see</i> COOPER John R. & GOWING Helen S.	Mammalian small intestinal phytase ( <i>EC</i> 3.1.3.8).	673
GRANT George, MORE Linda J., MCKENZIE Norma H., STEWART James C. & PUSZTAI Arpad	A survey of the nutritional and haemagglutination properties of legume seeds generally available in the UK.	207

	PAGE
GREEN Brenda G. <i>see</i> WILLIAMS Darryl M., KENNEDY F. Scott & GREEN Brenda G. Hepatic iron accumulation in copper-deficient rats.	653
GRUBB D.A. <i>see</i> HOVELL F.D. DEB., ØRSKOV E.R., GRUBB D.A. & MACLEOD N.A. Basal urinary nitrogen excretion and growth response to supplemental protein by lambs close to energy equilibrium.	173
GUSTAFSSON Inga-Britt, BOBERG J., KARLSTRÖM B., LITHELL H. & VESSBY B. Similar serum lipoprotein reductions by lipid-lowering diets with different polyunsaturated:saturated fat values.	531
HØY C.-E. <i>see</i> KIRSTEIN D., HØY C.-E. & HØLMER G. Effect of dietary fats on the Δ6- and Δ5-desaturation of fatty acids in rat liver microsomes.	749
HØLMER G. <i>see</i> KIRSTEIN D., HØY C.-E. & HØLMER G. Effect of dietary fats on the Δ6- and Δ5-desaturation of fatty acids in rat liver microsomes.	749
HÄMÄLÄINEN Mauri M. & MÄKINEN Kauko K. Peroral xylitol increases the concentration levels of tissue iron in the rat.	109
HARGROVE Diane M., ROGERS Quinton R. & MORRIS James G. The tryptophan requirement of the kitten.	487
HEATON F.W. <i>see</i> SEAL C.J. & HEATON F.W. Chemical factors affecting the intestinal absorption of zinc in vitro and in vivo.	317
HESKETH J.E. <i>see</i> MALTIN C.A., DUNCAN L., WILSON A.B. & HESKETH J.E. Effect of zinc deficiency on muscle fibre type frequencies in the post-weanling rat.	597
HETTIARACHCHY Navam S., SRI KANTHA Sachi S. & COREA S.M.X. The effect of oral contraceptive therapy and of pregnancy on serum folate levels of rural Sri Lankan women.	495
HEWITT D. <i>see</i> SALTER D.N., SMITH R.H. & HEWITT D. Factors affecting the capture of dietary nitrogen by micro-organisms in the forestomachs of the young steer. Experiments with [ <sup>15</sup> N]urea.	427
HILL R. <i>see</i> LEE Pauline A. & HILL R. Voluntary food intake of growing pigs given diets containing rapeseed meal, from different types and varieties of rape, as the only protein supplement.	661
HILLMAN Lybus, PETERS Sue, FISHER Anne & POMARE E.W. Differing effects of pectin, cellulose and lignin on stool pH, transit time and weight.	189
HOCHLAND Michele C. <i>see</i> SANDERS T.A.B. & HOCHLAND Michele C. A comparison of the influence on plasma lipids and platelet function of supplements of ω3 and ω6 polyunsaturated fatty acids.	521
HOVELL F.D. DEB. <i>see</i> ØRSKOV E.R., MACLEOD N.A., FAHMY S.T.M., ISTASSE L. & HOVELL F.D. DEB. Investigation of nitrogen balance in dairy cows and steers nourished by intragastric infusion. Effects of submaintenance energy input with or without protein.	99
HOVELL F.D. DEB., ØRSKOV E.R., GRUBB D.A. & MACLEOD N.A. Basal urinary nitrogen excretion and growth response to supplemental protein by lambs close to energy equilibrium.	173
HOVELL F.D. DEB., ØRSKOV E.R., MACLEOD N.A. & McDONALD I. The effect of changes in the amount of energy infused as volatile fatty acids on the nitrogen retention and creatinine excretion of lambs wholly nourished by intragastric infusion.	331
ISTASSE L. <i>see</i> ØRSKOV E.R., MACLEOD N.A., FAHMY S.T.M., ISTASSE L. & HOVELL F.D. DEB. Investigation of nitrogen balance in dairy cows and steers nourished by intragastric infusion. Effects of submaintenance energy input with or without protein.	99
ISTFAN Nawfal <i>see</i> CHRISTENSEN Merrill J., JANGHORBANI Morteza, STEINKE Fred H., ISTFAN Nawfal & YOUNG Vernon R. Simultaneous determination of absorption of selenium from poultry meat and selenite in young men: application of a triple stable-isotope method.	43
JACOBSEN Ingeborg <i>see</i> EGGUM B.O., PEDERSEN Birthe & JACOBSEN Ingeborg. The influence of dietary tea, coffee and cocoa on protein and energy utilization of soya-bean meal and barley in rats.	197
JAMISON M.H., SHARMA H., BRAGANZA J.M. & CASE R.M. The influence of pancreatic juice on <sup>64</sup> Cu absorption in the rat.	113
JANGHORBANI Morteza <i>see</i> CHRISTENSEN Merrill J., JANGHORBANI Morteza, STEINKE Fred H., ISTFAN Nawfal & YOUNG Vernon R. Simultaneous determination of absorption of selenium from poultry meat and selenite in young men: application of a triple stable-isotope method.	43
JILG T. <i>see</i> RAAB L., CAFANTARIS B., JILG T. & MENKE K.H. Rumen protein degradation and biosynthesis. 1. A new method for determination of protein degradation in rumen fluid in vitro.	569
JOHNSON I.T. <i>see</i> GEE Jennifer M., BLACKBURN N.A. & JOHNSON I.T. The influence of guar gum on intestinal cholesterol transport in the rat.	215
JONES W.T. <i>see</i> NUGENT J.H.A., JONES W.T., JORDON D.J. & MANGAN J.L. Rates of proteolysis in the rumen of the soluble proteins casein, Fraction I (18S) leaf protein, bovine serum albumin and bovine submaxillary mucoprotein.	357

## Index of Authors

795

## PAGE

JORDON D.J. <i>see</i> NUGENT J.H.A., JONES W.T., JORDON D.J. & MANGAN J.L.	Rates of proteolysis in the rumen of the soluble proteins casein, Fraction I (18S) leaf protein, bovine serum albumin and bovine submaxillary mucoprotein.	357
JUNG Hans-Joachim G., FAHEY JR George C. & MERCHEN Neal R.	Effects of ruminant digestion and metabolism on phenolic monomers of forages.	637
KARLSTRÖM B. <i>see</i> GUSTAFSSON Inga-Britt, BOBERG J., KARLSTRÖM B., LITHELL H. & VESSBY B.	Similar serum lipoprotein reductions by lipid-lowering diets with different polyunsaturated:saturated fat values.	531
KAY R.N.B. <i>see</i> SUTTIE J.M., GOODALL E.D., PENNIE K. & KAY R.N.B.	Winter food restriction and summer compensation in red deer stags ( <i>Cervus elaphus</i> ).	737
KENNEDY F. Scott <i>see</i> WILLIAMS Darryl M., KENNEDY F. Scott & GREEN Brenda G.	Hepatic iron accumulation in copper-deficient rats.	653
KIM Kyu-Il, McMILLAN Ian & BAYLEY Henry S.	Determination of amino acid requirements of young pigs using an indicator amino acid.	369
KIM Kyu-Il & BAYLEY Henry S.	Amino acid oxidation by young pigs receiving diets with varying levels of sulphur amino acids.	383
KIM Kyu-Il, ELLIOTT James I. & BAYLEY Henry S.	Oxidation of an indicator amino acid by young pigs receiving diets with varying levels of lysine or threonine, and an assessment of amino acid requirements.	391
KIRSTEIN D., HØY C.-E. & HØLMER G.	Effect of dietary fats on the Δ6- and Δ5-desaturation of fatty acids in rat liver microsomes.	749
KNOX D., COWEY C.B. & ADRON J.W.	Studies on the nutrition of rainbow trout ( <i>Salmo gairdneri</i> ). Magnesium deficiency: the effect of feeding with a Mg-supplemented diet.	121
KRISHNAMOORTHY U., SNIFFEN C.J., STERN M.D. & VAN SOEST P.J.	Evaluation of a mathematical model of rumen digestion and an in vitro simulation of rumen proteolysis to estimate the rumen-undegraded nitrogen content of feedstuffs.	555
KRONFELD David S. <i>see</i> DONOGHUE Susan, KRONFELD David S. & SKLAN David	Retinol homeostasis in lambs given low and high intakes of vitamin A.	235
LEDWARD D.A. <i>see</i> BOGUNJOKO Funke E., NEALE R.J. & LEDWARD D.A.	Availability of iron from chicken meat and liver given to rats.	511
LEE Pauline A. & HILL R.	Voluntary food intake of growing pigs given diets containing rapeseed meal, from different types and varieties of rape, as the only protein supplement.	661
LESLIE S. <i>see</i> SAUNDERSON C. Linda & LESLIE S.	<i>N</i> <sup>r</sup> -methyl histidine excretion by poultry: not all species excrete <i>N</i> <sup>r</sup> -methyl histidine quantitatively.	691
LITHELL H. <i>see</i> GUSTAFSSON Inga-Britt, BOBERG J., KARLSTRÖM B., LITHELL H. & VESSBY B.	Similar serum lipoprotein reductions by lipid-lowering diets with different polyunsaturated:saturated fat values.	531
MACDONALD Dorothy <i>see</i> EASTWOOD M.A., ROBERTSON J.A., BRYDON W.G. & MACDONALD Dorothy	Measurement of water-holding properties of fibre and their faecal bulking ability in man.	539
MACLEOD N.A. <i>see</i> ØRSKOV E.R., MACLEOD N.A., FAHMY S.T.M., ISTASSE L. & HOVELL F.D. DEB.	Investigation of nitrogen balance in dairy cows and steers nourished by intragastric infusion. Effects of submaintenance energy input with or without protein.	99
MACLEOD N.A. <i>see</i> HOVELL F.D. DEB., ØRSKOV E.R., GRUBB D.A. & MACLEOD N.A.	Basal urinary nitrogen excretion and growth response to supplemental protein by lambs close to energy equilibrium.	173
MACLEOD N.A. <i>see</i> HOVELL F.D. DEB., ØRSKOV E.R., MACLEOD N.A. & McDONALD I.	The effect of changes in the amount of energy infused as volatile fatty acids on the nitrogen retention and creatinine excretion of lambs wholly nourished by intragastric infusion.	331
MACRAE J.C. <i>see</i> WILSON Stephen, MACRAE J.C. & BUTTERY P.J.	Glucose production and utilization in non-pregnant, pregnant and lactating ewes.	303
MÄKINEN Kauko K. <i>see</i> HÄMÄLÄINEN Mauri M. & MÄKINEN Kauko K.	Peroral xylitol increases the concentration levels of tissue iron in the rat.	109
MALTIN C.A., DUNCAN L., WILSON A.B. & HESKETH J.E.	Effect of zinc deficiency on muscle fibre type frequencies in the post-weanling rat.	597
MANGAN J.L. <i>see</i> NUGENT J.H.A., JONES W.T., JORDON D.J. & MANGAN J.L.	Rates of proteolysis in the rumen of the soluble proteins casein, Fraction I (18S) leaf protein, bovine serum albumin and bovine submaxillary mucoprotein.	357
MCALLAN A.B. & SMITH R.H.	Factors influencing the digestion of dietary carbohydrates between the mouth and abomasum of steers.	445

	PAGE
MCALLAN A.B. <i>see</i> MERRY R.J. & MCALLAN A.B. A comparison of the chemical composition of mixed bacteria harvested from the liquid and solid fractions of rumen digesta.	701
MCDONALD I. <i>see</i> HOVELL F.D. DEB., ØRSKOV E.R., MACLEOD N.A. & MCDONALD I. The effect of changes in the amount of energy infused as volatile fatty acids on the nitrogen retention and creatinine excretion of lambs wholly nourished by intragastric infusion.	331
MCKAY Linda F. & EASTWOOD M.A. The influence of dietary fibre on caecal metabolism in the rat.	679
MCKENZIE Norma H. <i>see</i> GRANT George, MORE Linda J., MCKENZIE Norma H., STEWART James C. & PUSZTAI Arpad A survey of the nutritional and haemagglutination properties of legume seeds generally available in the UK.	207
MCMILLAN Ian <i>see</i> KIM Kyu-Il, MCMILLAN Ian & BAYLEY Henry S. Determination of amino acid requirements of young pigs using an indicator amino acid.	369
MENKE K.H. <i>see</i> RAAB L., CAFANTARIS B., JILG T. & MENKE K.H. Rumen protein degradation and biosynthesis. 1. A new method for determination of protein degradation in rumen fluid in vitro.	569
MERCHEN Neal R. <i>see</i> JUNG Hans-Joachim G., FAHEY JR George C. & MERCHEN Neal R. Effects of ruminant digestion and metabolism on phenolic monomers of forages.	637
MERRY R.J. & MCALLAN A.B. A comparison of the chemical composition of mixed bacteria harvested from the liquid and solid fractions of rumen digesta.	701
METZ J. <i>see</i> VAN DER WESTHUYZEN J. & METZ J. Tissue S-adenosylmethionine levels in fruit bats ( <i>Rousettus aegyptiacus</i> ) with nitrous oxide-induced neuropathy.	325
MILLAR K.R. <i>see</i> BARRY T.N., MILLAR K.R., BOND G. & DUNCAN S.J. Copper metabolism in growing sheep given kale ( <i>Brassica oleracea</i> ) and ryegrass ( <i>Lolium perenne</i> )-clover ( <i>Trifolium repens</i> ) fresh forage diets.	281
MINSKI Margaret J. <i>see</i> FAIRWEATHER-TAIT Susan J., MINSKI Margaret J. & RICHARDSON D.P. Iron absorption from a malted cocoa drink fortified with ferric orthophosphate using the stable isotope <sup>58</sup> Fe as an extrinsic label.	51
MORANT S.V. <i>see</i> BINNS J.A. & MORANT S.V. The effect of body condition on metabolic changes associated with intake of food by the cow.	81
MORE Linda J. <i>see</i> GRANT George, MORE Linda J., MCKENZIE Norma H., STEWART James C. & PUSZTAI Arpad A survey of the nutritional and haemagglutination properties of legume seeds generally available in the UK.	207
MORRIS James G. <i>see</i> HARGROVE Diane M., ROGERS Quinton R. & MORRIS James G. The tryptophan requirement of the kitten.	487
MOWLEM A. <i>see</i> SALTER D.N. & MOWLEM A. Neonatal role of milk folate-binding protein: studies on the course of digestion of goat's milk folate binder in the 6-d-old kid.	589
NAKAMOTO Tetsuo, PORTER Johnny R. & WINKLER Mark M. The effect of prenatal protein-energy malnutrition on the development of mandibles and long bones in newborn rats.	75
NÄVERT B. <i>see</i> ANDERSSON H., NÄVERT B., BINGHAM S.A., ENGLYST H.N. & CUMMINGS J.H. The effects of breads containing similar amounts of phytate but different amounts of wheat bran on calcium, zinc and iron balance in man.	503
NEALE R.J. & WATERLOW J.C. Rate of endogenous methionine oxidation in rats at different levels of methionine intake.	157
NEALE R.J. <i>see</i> BOGUNJKO Funke E., NEALE R.J. & LEDWARD D.A. Availability of iron from chicken meat and liver given to rats.	511
NICHOLSON T. & OMER Shadia A. The inhibitory effect of intestinal infusions of unsaturated long-chain fatty acids on forestomach motility of sheep.	141
NIR I. <i>see</i> NITSAN Zafraira, DVORIN A. & NIR I. Protein, essential amino acids and glycine requirements of the growing gosling ( <i>Anser cireneus</i> ).	455
NITSAN Zafraira, DVORIN A. & NIR I. Protein, essential amino acids and glycine requirements of the growing gosling ( <i>Anser cireneus</i> ).	455
NJAA L.R. <i>see</i> AKSNES A. & NJAA L.R. Absorption of methionine and methionine sulphoxide in rat intestine and the effect of glutathione.	583
NOLAN J.V. <i>see</i> DIXON R.M. & NOLAN J.V. Studies of the large intestine of sheep. 3. Nitrogen kinetics in sheep given chopped lucerne ( <i>Medicago sativa</i> ) hay.	757
NUGENT J.H.A., JONES W.T., JORDON D.J. & MANGAN J.L. Rates of proteolysis in the rumen of the soluble proteins casein, Fraction I (18S) leaf protein, bovine serum albumin and bovine submaxillary mucoprotein.	357

## Index of Authors

797

	PAGE
OMER Shadia A. <i>see</i> NICHOLSON T. & OMER Shadia A. The inhibitory effect of intestinal infusions of unsaturated long-chain fatty acids on forestomach motility of sheep.	141
O'NEILL Iris E. <i>see</i> BANNISTER D.W., O'NEILL Iris E. & WHITEHEAD C.C. The effect of biotin deficiency and dietary protein content on lipogenesis, gluconeogenesis and related enzyme activities in chick liver.	291
ØRSKOV E.R., MACLEOD N.A., FAHMY S.T.M., ISTASSE L. & HOVELL F.D. DEB. Investigation of nitrogen balance in dairy cows and steers nourished by intragastric infusion. Effects of submaintenance energy input with or without protein.	99
ØRSKOV E.R. <i>see</i> HOVELL F.D. DEB., ØRSKOV E.R., GRUBB D.A. & MACLEOD N.A. Basal urinary nitrogen excretion and growth response to supplemental protein by lambs close to energy equilibrium.	173
ØRSKOV E.R. <i>see</i> HOVELL F.D. DEB., ØRSKOV E.R., MACLEOD N.A. & McDONALD I. The effect of changes in the amount of energy infused as volatile fatty acids on the nitrogen retention and creatinine excretion of lambs wholly nourished by intragastric infusion.	331
ØRSKOV E.R. <i>see</i> STORM E. & ØRSKOV E.R. The nutritive value of rumen micro-organisms in ruminants. 1. Large-scale isolation and chemical composition of rumen micro-organisms.	463
ØRSKOV E.R. <i>see</i> STORM E., ØRSKOV E.R. & SMART R. The nutritive value of rumen micro-organisms in ruminants. 2. The apparent digestibility and net utilization of microbial N for growing lambs.	471
ØRSKOV E.R. <i>see</i> STORM E., BROWN D.S. & ØRSKOV E.R. The nutritive value of rumen micro-organisms in ruminants. 3. The digestion of microbial amino and nucleic acids in, and losses of endogenous nitrogen from, the small intestine of sheep.	479
PALMER Maureen F. & ROLLS B.A. The activities of some metabolic enzymes in the intestines of germ-free and conventional chicks.	783
PEDERSEN Birthe <i>see</i> EGGUM B.O., PEDERSEN Birthe & JACOBSEN Ingeborg The influence of dietary tea, coffee and cocoa on protein and energy utilization of soya-bean meal and barley in rats.	197
PENNIE K. <i>see</i> SUTTIE J.M., GOODALL E.D., PENNIE K. & KAY R.N.B. Winter food restriction and summer compensation in red deer stags ( <i>Cervus elaphus</i> ).	737
PETERS Sue <i>see</i> HILLMAN Lybus, PETERS Sue, FISHER Anne & POMARE E.W. Differing effects of pectin, cellulose and lignin on stool pH, transit time and weight.	189
PIKAAR N.A. <i>see</i> VAN DOKKUM W., PIKAAR N.A. & THISSEN J.T.N.M. Physiological effects of fibre-rich types of bread. 2. Dietary fibre from bread: digestibility by the intestinal microflora and water-holding capacity in the colon of human subjects.	61
POMARE E.W. <i>see</i> HILLMAN Lybus, PETERS Sue, FISHER Anne & POMARE E.W. Differing effects of pectin, cellulose and lignin on stool pH, transit time and weight.	189
PORTER Johnny R. <i>see</i> NAKAMOTO Tetsuo, PORTER Johnny R. & WINKLER Mark M. The effect of prenatal protein-energy malnutrition on the development of mandibles and long bones in newborn rats.	75
PUSZTAI Arpad <i>see</i> GRANT George, MORE Linda J., MCKENZIE Norma H., STEWART James C. & PUSZTAI Arpad A survey of the nutritional and haemagglutination properties of legume seeds generally available in the UK.	207
RAAB L., CAFANTARIS B., JILG T. & MENKE K.H. Rumen protein degradation and biosynthesis. 1. A new method for determination of protein degradation in rumen fluid in vitro.	569
RICHARDSON D.P. <i>see</i> FAIRWEATHER-TAIT Susan J., MINSKI Margaret J. & RICHARDSON D.P. Iron absorption from a malted cocoa drink fortified with ferric orthophosphate using the stable isotope <sup>65</sup> Fe as an extrinsic label.	51
ROBERTSON J.A. <i>see</i> EASTWOOD M.A., ROBERTSON J.A., BRYDON W.G. & MACDONALD Dorothy Measurement of water-holding properties of fibre and their faecal bulking ability in man.	539
ROGERS Quinton R. <i>see</i> HARGROVE Diane M., ROGERS Quinton R. & MORRIS James G. The tryptophan requirement of the kitten.	487
ROLLS B.A. <i>see</i> PALMER Maureen F. & ROLLS B.A. The activities of some metabolic enzymes in the intestines of germ-free and conventional chicks.	783
SAKAIDA Kazuhiro <i>see</i> AOYAMA Yoritaka, SAKAIDA Kazuhiro, YOSHIDA Akira & ASHIDA Kiyoshi Effects on liver and serum lipids of dietary supplements of methionine and excess lysine given to previously-starved rats.	627
SALTER D.N., SMITH R.H. & HEWITT D. Factors affecting the capture of dietary nitrogen by micro-organisms in the forestomachs of the young steer. Experiments with [ <sup>15</sup> N]urea.	427
SALTER D.N. & MOWLEM A. Neonatal role of milk folate-binding protein: studies on the course of digestion of goat's milk folate binder in the 6-d-old kid.	589

	PAGE
SALTER D.N. <i>see</i> BLAKE J.S., SALTER D.N. & SMITH R.H. Incorporation of nitrogen into rumen bacterial fractions of steers given protein- and urea-containing diets. Ammonia assimilation into intracellular bacterial amino acids.	769
SANDERS T.A.B. & HOCHLAND Michele C. A comparison of the influence on plasma lipids and platelet function of supplements of $\omega 3$ and $\omega 6$ polyunsaturated fatty acids.	521
SANTOS-RUIZ Angel <i>see</i> CASCALES Carmen, BENITO Manuel, CASCALES Maria, CALDÉS Trinidad & SANTOS-RUIZ Angel The effect of chronic ethanol administration on lipogenesis in liver and adipose tissue in the rat.	549
SAUNDERSON C. Linda & LESLIE S. $N^{\circ}$ -methyl histidine excretion by poultry: not all species excrete $N^{\circ}$ -methyl histidine quantitatively.	691
SEAL C.J. & HEATON F.W. Chemical factors affecting the intestinal absorption of zinc in vitro and in vivo.	317
SELIVONCHICK Daniel P. <i>see</i> ABLETT Richard F., TAYLOR Matthew J. & SELIVONCHICK Daniel P. The effect of high-protein and high-carbohydrate diets on [ $^{125}\text{I}$ ]iodoinsulin binding in skeletal muscle plasma membranes and isolated hepatocytes of rainbow trout ( <i>Salmo gairdneri</i> ).	129
SHARMA H. <i>see</i> JAMISON M.H., SHARMA H., BRAGANZA J.M. & CASE R.M. The influence of pancreatic juice on $^{64}\text{Cu}$ absorption in the rat.	113
SINNETT-SMITH Patrick A., DUMELOW Nicola W. & BUTTERY Peter J. Effects of trenbolone acetate and zeranol on protein metabolism in male castrate and female lambs.	225
SKLAN David <i>see</i> DONOGHUE Susan, KRONFELD David S. & SKLAN David Retinol homeostasis in lambs given low and high intakes of vitamin A.	235
SKLAN David Vitamin A absorption and metabolism in the chick: response to high dietary intake and to tocopherol.	401
SKLAN David Effect of high vitamin A or tocopherol intake on hepatic lipid metabolism and intestinal absorption and secretion of lipids and bile acids in the chick.	409
SKLAN David Carotene-cleavage activity in chick intestinal mucosa cytosol: association with a high-molecular-weight lipid-protein aggregate fraction and partial characterization of the activity.	417
SMART R. <i>see</i> STORM E., ØRSKOV E.R. & SMART R. The nutritive value of rumen micro-organisms in ruminants. 2. The apparent digestibility and net utilization of microbial N for growing lambs.	471
SMITH R.H. <i>see</i> SALTER D.N., SMITH R.H. & HEWITT D. Factors affecting the capture of dietary nitrogen by micro-organisms in the forestomachs of the young steer. Experiments with [ $^{15}\text{N}$ ]urea.	427
SMITH R.H. <i>see</i> MCALLAN A.B. & SMITH R.H. Factors influencing the digestion of dietary carbohydrates between the mouth and abomasum of steers.	445
SMITH R.H. <i>see</i> BLAKE J.S., SALTER D.N. & SMITH R.H. Incorporation of nitrogen into rumen bacterial fractions of steers given protein- and urea-containing diets. Ammonia assimilation into intracellular bacterial amino acids.	769
SNIFFEN C.J. <i>see</i> KRISHNAMOORTHY U., SNIFFEN C.J., STERN M.D. & VAN SOEST P.J. Evaluation of a mathematical model of rumen digestion and an in vitro simulation of rumen proteolysis to estimate the rumen-undegraded nitrogen content of feedstuffs.	555
SRI KANTHA Sachi S. <i>see</i> HETTIARACHCHY Navam S., SRI KANTHA Sachi S. & COREA S.M.X. The effect of oral contraceptive therapy and of pregnancy on serum folate levels of rural Sri Lankan women.	495
STEINKE Fred H. <i>see</i> CHRISTENSEN Merrill J., JANGHORBANI Morteza, STEINKE Fred H., ISTFAN Nawfal & YOUNG Vernon R. Simultaneous determination of absorption of selenium from poultry meat and selenite in young men: application of a triple stable-isotope method.	43
STERN M.D. <i>see</i> KRISHNAMOORTHY U., SNIFFEN C.J., STERN M.D. & VAN SOEST P.J. Evaluation of a mathematical model of rumen digestion and an in vitro simulation of rumen proteolysis to estimate the rumen-undegraded nitrogen content of feedstuffs.	555
STEWART James C. <i>see</i> GRANT George, MORE Linda J., MCKENZIE Norma H., STEWART James C. & PUSZTAI Arpad A survey of the nutritional and haemagglutination properties of legume seeds generally available in the UK.	207
STORM E. & ØRSKOV E.R. The nutritive value of rumen micro-organisms in ruminants. 1. Large-scale isolation and chemical composition of rumen micro-organisms.	463
STORM E., ØRSKOV E.R. & SMART R. The nutritive value of rumen micro-organisms in ruminants. 2. The apparent digestibility and net utilization of microbial N for growing lambs.	471
STORM E., BROWN D.S. & ØRSKOV E.R. The nutritive value of rumen micro-organisms in ruminants. 3. The digestion of microbial amino and nucleic acids in, and losses of endogenous nitrogen from, the small intestine of sheep.	479

## Index of Authors

799

PAGE

SUTTIE J.M., GOODALL E.D., PENNIE K. & KAY R.N.B.	Winter food restriction and summer compensation in red deer stags ( <i>Cervus elaphus</i> ).	737
TAYLOR Matthew J.	<i>see</i> ABLETT Richard F., TAYLOR Matthew J. & SELIVONCHICK Daniel P. The effect of high-protein and high-carbohydrate diets on [ $^{125}\text{I}$ ]iodoinsulin binding in skeletal muscle plasma membranes and isolated hepatocytes of rainbow trout ( <i>Salmo gairdneri</i> ).	129
THISSEN J.T.N.M.	<i>see</i> VAN DOKKUM W., PIKAAR N.A. & THISSEN J.T.N.M. Physiological effects of fibre-rich types of bread. 2. Dietary fibre from bread: digestibility by the intestinal microflora and water-holding capacity in the colon of human subjects.	61
THOMPSON G.E.	The intake of milk by suckled, newborn lambs and the effects of twinning and cold exposure.	151
TOPPS J.H.	<i>see</i> ZOIOPoulos P.E., TOPPS J.H. & ENGLISH P.R. Losses in weight and body water in sows after weaning.	163
VAN DER WALT J.G.	<i>see</i> BAIRD G.D., VAN DER WALT J.G. & BERGMAN E.N. Whole-body metabolism of glucose and lactate in productive sheep and cows.	249
VAN DER WALT J.G., BAIRD G.D. & BERGMAN E.N.	Tissue glucose and lactate metabolism and interconversions in pregnant and lactating sheep.	267
VAN DER WESTHUYZEN J. & METZ J.	Tissue S-adenosylmethionine levels in fruit bats ( <i>Rousettus aegyptiacus</i> ) with nitrous oxide-induced neuropathy.	325
VAN DOKKUM W., PIKAAR N.A. & THISSEN J.T.N.M.	Physiological effects of fibre-rich types of bread. 2. Dietary fibre from bread: digestibility by the intestinal microflora and water-holding capacity in the colon of human subjects.	61
VAN SOEST P.J.	<i>see</i> KRISHNAMOORTHY U., SNIFFEN C.J., STERN M.D. & VAN SOEST P.J. Evaluation of a mathematical model of rumen digestion and an in vitro simulation of rumen proteolysis to estimate the rumen-undegraded nitrogen content of feedstuffs.	555
VESSBY B.	<i>see</i> GUSTAFSSON Inga-Britt, BOBERG J., KARLSTRÖM B., LITHELL H. & VESSBY B. Similar serum lipoprotein reductions by lipid-lowering diets with different polyunsaturated:saturated fat values.	531
WALLACE R.J.	Hydrolysis of $^{14}\text{C}$ -labelled proteins by rumen micro-organisms and by proteolytic enzymes prepared from rumen bacteria.	345
WATERLOW J.C.	<i>see</i> NEALE R.J. & WATERLOW J.C. Rate of endogenous methionine oxidation in rats at different levels of methionine intake.	157
WHITEHEAD C.C.	<i>see</i> BANNISTER D.W., O'NEILL Iris E. & WHITEHEAD C.C. The effect of biotin deficiency and dietary protein content on lipogenesis, gluconeogenesis and related enzyme activities in chick liver.	291
WILLIAMS Darryl M., KENNEDY F. Scott & GREEN Brenda G.	Hepatic iron accumulation in copper-deficient rats.	653
WILSON A.B.	<i>see</i> MALTIN C.A., DUNCAN L., WILSON A.B. & HESKETH J.E. Effect of zinc deficiency on muscle fibre type frequencies in the post-weanling rat.	597
WILSON Stephen, MACRAE J.C. & BUTTERY P.J.	Glucose production and utilization in non-pregnant, pregnant and lactating ewes.	303
WINKLER Mark M.	<i>see</i> NAKAMOTO Tetsuo, PORTER Johnny R. & WINKLER Mark M. The effect of prenatal protein-energy malnutrition on the development of mandibles and long bones in newborn rats.	75
WRIGHT N.A.	<i>see</i> GOODLAD R.A. & WRIGHT N.A. Effects of addition of kaolin or cellulose to an elemental diet on intestinal cell proliferation in the mouse.	91
XU GUANG-LU & DIPLOCK Anthony T.	Glutathione peroxidase ( $EC\ 1.11.1.9$ ), glutathione-S-transferase ( $EC\ 2.5.1.13$ ), superoxide dismutase ( $EC\ 1.15.1.1$ ) and catalase ( $EC\ 1.11.1.6$ ) activities in tissues of ducklings deprived of vitamin E and selenium.	437
YOSHIDA Akira	<i>see</i> AOYAMA Yoritaka, SAKAIDA Kazuhiro, YOSHIDA Akira & ASHIDA Kiyoshi Effects on liver and serum lipids of dietary supplements of methionine and excess lysine given to previously-starved rats.	627
YOUNG Vernon R.	<i>see</i> CHRISTENSEN Merrill J., JANGHORBANI Morteza, STEINKE Fred H., ISTFAN Nawfal & YOUNG Vernon R. Simultaneous determination of absorption of selenium from poultry meat and selenite in young men: application of a triple stable-isotope method.	43
ZOIOPoulos P.E., TOPPS J.H. & ENGLISH P.R.	Losses in weight and body water in sows after weaning.	163