

## Index of Subjects

*Numerals show only the initial page of passages concerned with the subject.*

*Numerals followed by the letter A refer to pages in Abstracts of Communications read at Meetings for Original Communications of The Nutrition Society.*

- Abomasal protein infusion, effect on glucose entry rate, sheep 35A  
 Abomasal protein supplementation, effect on food intake, concentrate diet, sheep 25A  
 Absorption, carbohydrates 230  
 Absorption, carbohydrates, effect of coccidiosis infection, chick 29A  
 Absorption, carbohydrates, intestine, man 248  
 Absorption, lactose, pre-ruminant calf 90A  
 Absorption, vitamin C, mouth, man 81A  
 Absorption capacity, intestinal glucose, sheep 43A  
 Acetylcholinesterase, brain, effect of early under-nutrition, rat 67A  
 Acid detergent fibre *see* Fibre, acid detergent  
 Adipose tissue, lipoprotein lipase activity, effect of sucrose and starch, rat 12A  
 Age, relationship to metabolism after surgery 172  
 Agriculture, hill farming industry, Great Britain 195  
 Albumin, serum, changes after injury 154  
 Alginates, effect on colon, guinea-pig 81A  
 Amino acid(s) *see also*  $\alpha$ -Amino-isobutyrate,  $\alpha$ - $\epsilon$ -Diaminopimelic acid, Histidine  
 Amino acid(s), dietary, effect on liver polysomes 43  
 Amino acid(s), plasma, effect of level of dietary protein, pig 11A  
 Amino acid(s), plasma, relationship to digestion of protein 23  
 Amino acid(s), plasma, use as indicators of amino acid requirements 3  
 Amino acid(s), plasma, use as indicators of protein quality 4  
 Amino acid(s), problems in formulating recommended allowances 73  
 Amino acid availability, determination by ileal or faecal analysis, chick 70A  
 Amino acid distribution, plasma and blood cells, protein-free diet, chick 49A  
 Amino acid requirements, use of plasma amino acids as indicators 3  
 $\alpha$ -Amino-isobutyrate, occurrence in digesta, sheep 16A  
 Ammonia metabolism, effect of intraruminal urea or casein administration 7  
 Analysis, composition of mammary cells, sheep 51A  
 Analysis, microbial assays, sources of error 70  
 Analytical technique, *in vitro* digestibility determination, forage crops, sheep 85A  
 Analytical technique, rapid biological assay for available tryptophan 69A  
 Appetite *see* Food intake  
 Bacteria, antibacterial action of Ethiopian 'chow', rat 77A  
 Barley diets, effect of physical form on nitrogen metabolism, sheep 1A  
 Behaviour, role in food intake regulation 142  
 Blood, parenteral nutrition after surgery 180  
 Blood cells and plasma, amino acid distribution, protein-free diet, chick 49A  
 Blood flow, portal system, effect of ammonia concentration, ruminants 9  
 Blood plasma amino acids, use as indicators of amino acid requirements 3  
 Blood plasma amino acids, use as indicators of dietary protein quality 4  
 Body composition, seasonal changes, hill sheep 199  
 Body fat, accumulation during pregnancy, role in lactation, rat 93A  
 Body size, relationship to efficiency, hill cow 214  
 Body-weight, effect of Fenfluramine derivative 'S992', man 7A  
 Body-weight, seasonal changes, hill sheep 199  
 Body-weight regulation, man 122  
 Brain, acetylcholinesterase, effect of early under-nutrition, rat 67A  
 Burn injury, effect of environmental temperature on metabolism and nutrition 165  
 Calcium *see also* Hypocalcaemia  
 Calcium metabolism, effect of stress, sheep 58A  
 Calcium nutrition, hill cattle and sheep 223  
 Calcium nutrition, role of vitamin D metabolism 47  
 Calcium retention, effect of nematode parasitism, lamb 83A  
 Calcium and phosphorus availability, comparative study, rat, pig 32A  
 Carbohydrate(s), dietary, effect on lipid metabolism, primate 277  
 Carbohydrate(s), dietary, relationship with plasma lipid concentrations, man 73A  
 Carbohydrate(s), digestion, ruminant 243  
 Carbohydrate(s), digestion, quantitative aspects, ruminant 245  
 Carbohydrate(s), digestion and absorption, effect of coccidiosis infection, chick 29A  
 Carbohydrate(s), digestion and metabolism 230  
 Carbohydrate(s), digestion and metabolism, foetal and neonatal ruminant 236  
 Carbohydrate(s), intestinal absorption, man 248  
 Carbohydrate(s), rate of ruminal fermentation 36  
 Carbohydrate(s) and fat(s), dietary, relationships with serum lipid levels, man 72A

- Carbohydrate(s) and protein(s), dietary, effect on intestinal transport of histidine and galactose, rat 80A
- Carbohydrate metabolism, domestic fowl 254
- Carbohydrate metabolism, rat 259
- Casein, intraruminal administration, effect on ammonia metabolism 7
- Cerebral necrosis, implication of ruminal thiaminase 7A
- Chloroform, inhibition of methanogenesis, rumen contents, sheep 44A
- Chromium, relationship to sucrose - induced hyperglyceridaemia, rat 74A
- Coccidiosis infection, effect on carbohydrate digestion and absorption, chick 29A
- Colon, effect of alginates, guinea-pig 81A
- Comminution, barley diets, effect on nitrogen metabolism, sheep 1A
- Comminution, lucerne, effect on energy utilization, lamb 88A
- Comminution, red clover, effect on digestion, sheep 86A
- Concentrates, rate of ruminal digestion 40
- Copper concentration, plasma, genetic variation, sheep 93
- Copper nutrition, hill cattle and sheep 227
- Copper poisoning, genetic variation in susceptibility, sheep 92
- Copper sulphate, dietary, synergy with 'Payzone', growing pig 11A
- Dehydration, red clover, effect on digestion, sheep 86A
- Dental caries, effect of sucrose or glucose syrups, rat 64A
- Diabetes mellitus, short-term hormonal responses to oral glucose 34
- Diaminopimelic acid, digesta, sheep 16A
- $\alpha$ - $\epsilon$ -Diaminopimelic acid metabolism, sheep 17A
- Diet, effect on metabolic pathways, carbohydrates, domestic fowl 257
- Diet, effect on urea influx to rumen, sheep 3A
- Diet, feeding the unconscious patient 184
- Diet, lipid-free, effect on triglyceride fatty acids, adipose tissue, lamb 48A
- Diet, low-protein, rate of adaptation by urea cycle enzymes, rat 79A
- Diet, parenteral feeding after surgery 180
- Diet, protein-free, effect on amino acid distribution, blood cells and plasma, chick 49A
- Diet, regional variation in intake 68
- Diet, sucrose-free, effect on glucose tolerance test, man 63A
- Diet, sucrose-free, effect on serum lipid levels, man 71A
- Diet, various carbohydrates, metabolic effects, rat 260
- Digesta, duodenum, automatic sampling technique 40A
- Digesta, duodenum, methods of measuring flow, sheep 18A
- Digesta, duodenum, relationship to rumen fermentation, concentrate diet, sheep 1A
- Digesta, occurrence of  $\alpha$ -amino-isobutyrate, sheep 16A
- Digesta, composition, duodenum, effect of formaldehyde-treated protein, sheep 42A
- Digestibility determination, chemical and in vitro digestion procedure, forage crops 85A
- Digestion, carbohydrates 230
- Digestion, carbohydrates, effect of coccidiosis infection, chick 29A
- Digestion, dried lucerne and dried sainfoin, sheep 14A
- Digestion, effects of dietary soya products, pre-ruminant calf 75A
- Digestion, effects of pancreatic duct ligation, pig 34A
- Digestion, effects of removal of large intestine, neonatal pig 26A
- Digestion, heat-treated protein 17
- Digestion, lactose, pre-ruminant calf 90A
- Digestion, ruminal, role in food intake regulation, ruminants 117
- Digestion, sites of, effects of drying and comminution, red clover, sheep 86A
- Disease, coccidiosis infection, effect on carbohydrate digestion and absorption, chick 29A
- Disease, effect on nitrogen excretion, hartebeest 65A
- Disorders, association to mineral metabolism, ruminants 92
- Duodenum, digesta, relationship to rumen fermentation, concentrate diet, sheep 1A
- Education, nutrition, in medical faculties 191
- Efficiency of utilization of carbohydrates, ruminants 41
- Egg production, nutritive value of oats, hen 52A
- Endogenous losses of nutrients 61
- Endoplasmic reticulum, liver, effect of dietary protein 42
- Energy balance regulation, physiological mechanisms 109
- Energy balance regulation, ruminants 118
- Energy expenditure, after ingestion of protein, fat or carbohydrate, man 4A
- Energy expenditure, effects of cold exposure, sheep 215
- Energy intake, relationship with plasma lipid concentrations, man 73A
- Energy intake, relationships with productivity, hill sheep 197
- Energy metabolism, chopped, milled or pelleted dried grass diet, sheep 23A
- Energy metabolism, relationship to protein losses after injury 156
- Energy metabolism, short-term hormonal responses to oral glucose 26
- Energy output, control, man 124
- Energy requirements after surgery 158
- Energy retention, effect of food intake level and environmental temperature, pig 33A

- Energy utilization, chopped and pelleted lucerne, lamb 88A
- Energy utilization, effects of mineral deficiencies, rat 76A
- Energy utilization, post-operative patient 162
- Enzyme(s) *see also* Acetylcholinesterase, Invertase, Isoamylases, Lipoprotein lipase, Thiaminase
- Enzyme(s), mucosal disaccharidase deficiencies, man 252
- Enzyme(s), time-course of response to stimulation 2
- Enzyme(s), urea cycle, rate of adaptation to low-protein diet, rat 79A
- Enzyme(s), use as indicators of protein metabolism 2
- Enzyme activity, carbohydrate metabolism, rat 260
- Enzyme activity, drug metabolism, liver, high-sugar diets, rat 27A
- Enzyme activity, drug metabolism, liver, relationship to protein nutrition, rat 5A
- Enzyme activity, glucose metabolism, effect of insulin 284
- Enzyme activity, glucose metabolism, ruminant 266
- Enzyme activity, pancreas, effect of milk-feeding, calf 89A
- Enzyme activity, pentosephosphate pathway, embryonic and neonatal chick 255
- Enzyme induction, hepatic microsomes, dietary lipid requirement, rat 66A
- Excretion, nitrogen, effect of disease, hartebeest 65A
- Excretion, urine, phenylacetic acid, sheep 57A
- Fat, dietary, glucose tolerance test, man 63A
- Fat, dietary, relationship to plasma triglyceride concentration after glucose syrup drink, man 92A
- Fat(s) and carbohydrate(s), dietary, relationships with serum lipid levels, man 72A
- Fat deposition, effect of sucrose or glucose syrups, rat 64A
- Fatty acid(s), adipose tissue triglyceride, effect of lipid-free diet, lamb 48A
- Fatty acid(s), volatile, metabolism, ruminant 243
- Fatty acid(s), volatile, rate of ruminal absorption 40
- Fatty acid composition, milk fat, effect of duodenal infusion of sunflower oil, cow 28A
- Fatty acid metabolism, obesity 126
- Fatty acid synthesis, relationship to glucose metabolism, ruminant 266
- Feeding patterns, relationship to social class, infant 30A
- Feeding regimen, effect on food intake, Blackface sheep 45A
- Feeding regimen, effect on oesophageal groove reflex, lamb 24A
- Fenfluramine derivative 'S992', effects on body-weight and blood lipids, man 8A
- Fermentation, gastro-intestinal tract, source of losses of protein 64
- Fertility, relationship to energy intake, hill sheep 200
- Fibre, acid detergent, analysis, effect of leucoanthocyanins, sainfoin 13A
- Folates, liver, kitten 91A
- Folic acid, assay problems 70
- Food intake, *ad lib.*, influence on control of experiments 5
- Food intake, chopped, milled or pelleted dried grass, sheep 23A
- Food intake, effect of abomasal protein supplementation, concentrate diet, sheep 25A
- Food intake, effect of cold exposure, sheep 216
- Food intake, effects of dietary hydrochloric and sulphuric acids, sheep 21A
- Food intake, effect of group feeding, penned Blackface sheep 45A
- Food intake, effect of high levels of dietary sulphate, sheep 20A
- Food intake, effect of mineral intake, sheep 223
- Food intake, effect of nematode parasitism, growing lamb 19A
- Food intake, effect of physiological changes, ruminant 135
- Food intake, effect on growth, neonate 127
- Food intake, effect on metabolic patterns, resolution of lighting and time-of-day effects 1
- Food intake, hypothalamic control 103
- Food intake, metabolite transfer, cross-circulation dialysis technique, sheep 22A
- Food intake, regional variations, effect on vitamin intakes 68
- Food intake, short term responses 1
- Food intake variation, cause of problems in experimental protein and nucleic acid metabolism 1
- Food intake level, effect on energy retention, pig 33A
- Food intake regulation 103
- Food intake regulation, behavioural aspects 142
- Food intake regulation, chemostatic theory, ruminant 120
- Food intake regulation, glucostatic theory 106
- Food intake regulation, lipostatic theory 113
- Food intake regulation, metabolic and physical control, ruminant 116
- Food processing, vitamin C stability, machine-peeled potatoes 94A
- Formaldehyde-treated protein(s), effect on composition of duodenal digesta, sheep 42A
- Formaldehyde-treated protein(s), effect on *in vitro* fermentation and utilization, sheep 41A
- Fructose, intestinal absorption, man 250
- Fructose, metabolism 233
- Fructose, metabolism, foetal ruminant 237
- Fructose, metabolism, primate 279
- Fructose, serum level after sucrose meal, atherosclerosis, man 92A
- Galactose, intestinal absorption, man 250

- Galactose, intestinal transport, effect of dietary protein and carbohydrate, rat 80A
- Gastro-intestinal tract, exchange of nitrogen 62
- Genetic variations, mineral metabolism, ruminant 91
- Gluconeogenesis, embryonic and neonatal chick 254
- Glucose, dietary, short-term hormonal responses 26
- Glucose, extent of intestinal absorption, sheep 43A
- Glucose, intestinal absorption, man 250
- Glucose, serum level after sucrose meal, atherosclerosis, man 92A
- Glucose absorption, germ-free chick 10A
- Glucose entry rate, effect of abomasal protein infusion, sheep 35A
- Glucose entry rate, ruminant 246
- Glucose metabolism, changes with growth, pregnancy and lactation, ruminant 272
- Glucose metabolism, neonatal ruminant 241
- Glucose metabolism, ruminant 243, 265
- Glucose metabolism, role of insulin 282
- Glucose syrup, effect on dental caries and fat deposition, rat 64A
- Glucose syrup, dietary, relationship to plasma triglyceride and dietary fat level, man 92A
- Glucose tolerance test, changes with sucrose-free diet, man 63A
- Glucose tolerance test, effect of dietary fat, man 63A
- Glucose transport, role of insulin 289
- Glucose utilization limitations, milk fat synthesis, goat 47A
- Gluten, effect of  $\gamma$ -radiation on tryptophan, wheat 68A
- Glycogen metabolism, embryonic and neonatal chick 254
- Glycolysis, embryonic and neonatal chick 255
- Goitre, genetic association, sheep 93
- Grassland, hill pastures, sheep production 204
- Great Britain, hill farming industry 195
- Grinding *see* Comminution
- Growth, compensatory, rat 6A
- Growth, effect on nematode parasitism, growing lamb 19A
- Growth, effect on pattern of glucose metabolism, ruminant 272
- Growth, food intake, neonate 127
- Growth, protein requirements, lamb 7A
- Hill farming industry, Great Britain 195
- Histidine, intestinal transport, effect of dietary protein and carbohydrate, rat 80A
- Hormone(s) *see also* Insulin, Pentagastrin
- Hormone(s), relationship to energy metabolism after injury 161
- Hormone(s), sex, effects on carbohydrate metabolism, primate 280
- Hormone(s), short-term responses to oral glucose, normal and abnormal energy metabolism 26
- Hydrochloric acid, dietary, effect on food intake and metabolism, sheep 21A
- Hypocalcaemia, induction during pregnancy and parturition, sheep 39A
- Hypomagnesaemia, genetic variation in incidence, cattle 93
- Hypothalamus, role in body-weight regulation 123
- Hypothalamus, food intake regulation 103
- Hypothalamus, food intake regulation, lipostatic theory 115
- Hypothalamus, food intake regulation, neonate 128
- Injury, aspects of subsequent nutrition 150
- Injury, burns, effect of environmental temperature on metabolism and nutrition 165
- Injury, effect on protein metabolism 152
- Insulin, role in regulation of glucose metabolism 282
- Intestine, large, effect of removal, neonatal pig 26A
- Intestine, small, capacity for removing glucose, sheep 43A
- Intestine, small, role in digestion of proteins 19
- Invertase activity, rumen contents, molassed sugar-beet pulp diet, sheep 53A
- Isoamylases, serum, effect of meals 66A
- Isobutylidene diurea, NPN source, ruminant 55A
- Isobutylidene diurea, nutritive value, growing lamb 56A
- Kwashiorkor, dietary carbohydrates, primate 281
- Lactation, effect on food intake, ruminant 140
- Lactation, effect on pattern of glucose metabolism, ruminant 272
- Lactation, nutritional status, beef cow 36A
- Lactation, relationship to energy intake, hill sheep 201
- Lactation, role of body fat accumulation during pregnancy, rat 93A
- Lactose, digestion and absorption, pre-ruminant calf 90A
- Lactose, intestinal absorption, man 250
- Lactose synthesis, role of glucose, ruminant 271
- Leuco-anthocyanins, sainfoin, effect on fibre analysis and protein availability, sheep 13A
- Light, effect on metabolic patterns, resolution of food intake and time-of-day effects 1
- Lignin analysis, effect of leuco-anthocyanins, sainfoin 13A
- Linoleic acid uptake, neonatal lamb 61A
- Lipid(s) *see also* Fat, Fatty acid(s), Linoleic acid, Sunflower oil, Triglyceride(s)
- Lipid(s), blood, effect of Fenfluramine derivative 'S992', man 8A
- Lipid, plasma concentration, relationship with dietary carbohydrate and energy intake, man 73A
- Lipid requirements, dietary, hepatic microsomal enzyme induction, rat 66A

- Lipid, serum levels, effects of sucrose-free diet, man 71A
- Lipid, serum levels, interrelationship of dietary carbohydrate and fat, man 72A
- Lipid-free diet, effect on triglyceride fatty acids, adipose tissue, lamb 48A
- Lipid metabolism, effects of dietary carbohydrates, primate 277
- Lipogenesis, relation to carbohydrate metabolism, domestic fowl 256
- Lipoprotein lipase activity, adipose tissue, effect of dietary sucrose and starch, rat 12A
- Liver, capacity to detoxicate ammonia 9
- Liver, drug-metabolizing enzyme activity, high sugar diets, rat 27A
- Liver, drug-metabolizing enzyme activity, relationship to protein nutrition, rat 5A
- Liver, folates, kitten 91A
- Liver, microsomal enzyme induction, dietary lipid requirements, rat 66A
- Liver, responses to protein feeding 42
- Liver polysomes, changes after injury 155
- Lucerne, dried, digestion, sheep 14A
- Mammary gland, determination of cell composition, sheep 51A
- Mammary gland, glucose metabolism, ruminant 266
- Mammary gland, glucose utilization for milk fat synthesis, goat 47A
- Magnesium *see also* Hypomagnesaemia
- Magnesium, nutrition, hill cattle and sheep 223
- Magnesium, relationship to hypocalcaemia, sheep 39A
- Markers, role in digesta sampling 40A
- Markers, use in measuring flow of duodenal digesta, sheep 18A
- Meal size, effect on food intake 142
- Metabolic pathway, glucose, ruminant 266
- Metabolic patterns, resolution of food intake, lighting and time-of-day effects 1
- Metabolism, effects of dietary hydrochloric and sulphuric acids, sheep 21A
- Metabolism, effect of environmental temperature, burned patients 165
- Metabolism, effect of surgery, elderly patients 172
- Metabolite transfer, food intake regulation, cross-circulation dialysis technique, sheep 22A
- Methanogenesis, rumen contents, inhibition by chloroform, sheep 44A
- Methanogenesis, rumen contents, inhibition by propane-1,2-diol, sheep 46A
- Milk, dietary, effect on pancreatic secretion, calf 89A
- Milk-fat composition, effect of duodenal infusion of sunflower oil, cow 28A
- Milk-fat synthesis, effect of dietary roughage level, cow 37A
- Milk-fat synthesis, factors limiting glucose utilization, goat 47A
- Milk fever, genetic variation in incidence, cattle 93
- Milk intake, neonate, man 133
- Milk intake, neonate, rabbit 131
- Mineral(s) *see also* Calcium, Chromium, Copper, Magnesium, Phosphorus, Sulphate, Trace elements, Zinc.
- Mineral concentrations, genetic variation, cattle 97
- Mineral concentrations, plasma, genetic variation, sheep 95
- Mineral deficiencies, effect on energy utilization, rat 76A
- Mineral metabolism, effect of nematode parasitism, growing lamb 19A
- Mineral metabolism, genetic variation, ruminant 91
- Mineral nutrition, hill cattle and sheep 221
- Molassed sugar-beet pulp, effect on invertase activity, rumen contents, sheep 53A
- Mucus, rates of secretion, gastro-intestinal tract 63
- Myocardial infarction, role of dietary carbohydrates, primate 281
- Nematode parasitism, effect on food intake, growth and mineral metabolism, growing lamb 19A
- Neonate, short-term hormonal responses to oral glucose 29
- Nervous system, insulin release 282
- Nitrogen, exchange in alimentary tract 62
- Nitrogen, gaseous evolution, respiration chamber study, rat, chick 30A
- Nitrogen excretion, effect of disease, hartebeest 65A
- Nitrogen metabolism, effect of physical form of barley diets, sheep 1A
- Nitrogen sources, nutritive value for early-weaned calf 84A
- Nitrogen transformations, alimentary tract, effect of dietary urea, poor-quality hay diet, sheep 15A
- Non-protein-nitrogen source, isobutylidene di-urea, ruminant 55A
- Nucleic acid metabolism, experimental problems caused by variations in food intake 1
- Nutrient(s), endogenous losses 61
- Nutrient requirements, amino acids, problems of formulating recommended allowances 73
- Nutrient requirements, problems of assessment 59
- Nutrient requirements, trace elements, problems of determination for animals 83
- Nutrition, after injury 150
- Nutrition, education in medical faculties 191
- Nutrition, effect of environmental temperature, burned patients 165
- Nutrition, hill cow 211
- Nutrition, minerals, hill cattle and sheep 221
- Nutrition, parenteral, after surgery 180
- Nutrition, unconscious patient 184

- Nutritional status, assessment, lactating beef cow 36A
- Nutritive value, hill pastures, sheep 20A
- Nutritive value, isobutylidene diurea, soya bean meal, urea, growing lamb 56A
- Nutritive value, oats, laying hens 52A
- Nutritive value, single-cell proteins, chick 59A
- Nutritive value, single-cell proteins, rat 60A
- Nutritive value, various nitrogen sources, early-weaned calf 84A
- Oats, nutritive value, laying hen 52A
- Obesity, fatty acid metabolism 126
- Obesity, short-term hormonal responses to oral glucose 30
- Oesophageal groove reflex, effects of individual and group feeding, lamb 24A
- Oestrus, effect on food intake, ruminant 137
- Pancreatic duct, ligation, effect on digestion, pig 34A
- Pancreatic secretion, milk-fed calf 89A
- Parasitism, nematode, effect on calcium and phosphorus retention, lamb 83A
- Parasitism, nematode, effect on food intake, growth and mineral metabolism, sheep 19A
- Parenteral nutrition after surgery 180
- Parturition, induction of hypocalcaemia, sheep 39A
- 'Payzone', synergy with dietary copper sulphate, growing pig 11A
- Pentagastrin, effect on urea influx to rumen, sheep 3A
- Peptides, enzyme-resistant, small intestine, rat 20
- pH, rumen, effect on ammonia metabolism 8
- Phenylacetic acid, urinary excretion, sheep 57A
- Phosphorus, nutrition, hill cattle and sheep 223
- Phosphorus and calcium availability, comparative study, rat, pig 32A
- Phosphorus retention, effect of nematode parasitism, lamb 83A
- Physical form, dried grass diet, effect on food intake and energy metabolism, sheep 23A
- Plasma amino acid levels, relationship to digestion of protein 23
- Pregnancy, accumulated body fat, role in lactation, rat 93A
- Pregnancy, effect on food intake, ruminant 138
- Pregnancy, effect on pattern of glucose metabolism, ruminant 272
- Pregnancy, induction of hypocalcaemia, sheep 39A
- Pregnancy, relationship to energy intake, hill sheep 200
- Pregnancy, short-term hormonal responses to oral glucose 29
- Processing, foodstuffs, effects on vitamin content 69
- Productivity, relationships with energy intake, hill sheep 197
- Propane-1:2-diol, effect of rumen infusion, sheep 46A
- Protein, abomasal infusion, effect on glucose entry rate, sheep 35A
- Protein(s), dietary, responses of the liver 42
- Protein, endogenous losses 61
- Protein(s), formaldehyde-treated, effect on composition of duodenal digesta, sheep 42A
- Protein(s), formaldehyde-treated, effect on in vitro fermentation and utilization, sheep 41A
- Protein, low dietary level, rate of adaptation by urea-cycle enzymes, rat 79A
- Protein(s), single-cell, nutritive value, chick 59A
- Protein(s), single-cell, nutritive value, rat 60A
- Protein and carbohydrate, dietary, effect on intestinal transport of histidine and galactose, rat 80A
- Protein absorption, nature of products, gut 21
- Protein availability, effect of leuco-anthocyanins in sainfoin, sheep 13A
- Protein biosynthesis, control by vitamin D 49
- Protein digestion, effect of heat treatment 17
- Protein level, dietary, effect on plasma amino acid pattern, pig 11A
- Protein metabolism, after injury 152
- Protein metabolism, experimental problems caused by variation in food intake 1
- Protein metabolism, relationship to urinary phenylacetic acid excretion, sheep 57A
- Protein metabolism, use of enzymes as indicators 2
- Protein nutrition, relationship to drug-metabolizing enzymes, liver, rat 5A
- Protein quality, dietary, use of plasma amino acids as indicators 4
- Protein requirements, growing lamb 7A
- Protein supplementation, per abomasum, effect on food intake, concentrate diet, sheep 25A
- Protein synthesis, rumen fermentation 246
- $\gamma$ -Radiation, effect on tryptophan, wheat gluten 68A
- Rate of flow, duodenal digesta, sheep 40A
- Rate of passage, role in food intake regulation, ruminant 118
- Requirements, amino acids, problems of formulating recommended allowances 73
- Requirements, trace elements, problems of determination for animals 83
- Roughage, dietary level, effect on milk-fat synthesis, cow 37A
- Roughage(s), rate of ruminal digestion 38
- Rumen, carbohydrate digestion 243
- Rumen, effect of urea and casein administration on ammonia metabolism 7
- Rumen, invertase activity, molassed sugar-beet pulp diet, sheep 53A
- Rumen, rate of carbohydrate fermentation 36
- Rumen, thiaminase, implication in cerebrocortical necrosis 7A
- Rumen, urea influx, effects of diet and pentagastrin, sheep 3A
- Rumen capacity, role in food intake regulation 117

- Rumen contents, methanogenesis, inhibition by chloroform, sheep 44A
- Rumen fermentation, *in vitro*, effect of formaldehyde-treated proteins 41A
- Rumen fermentation, relationship to flow of duodenal digesta, concentrate diet, sheep 1A
- Sainfoin, dried, digestion, sheep 14A
- Sainfoin, leuco-anthocyanins, effect on fibre analysis and protein availability, sheep 13A
- Seasonal changes, body-weight and composition, hill sheep 199
- Skin disorders, role of dietary carbohydrates, primate 281
- Skinfold thickness, variability of measurements by different observers 9A
- Social class, relationship to feeding patterns, infants 30A
- Soya-bean meal, nutritive value, growing lamb 56A
- Soya products, dietary, effect on digestion, pre-ruminant calf 75A
- Specific dynamic action, role in appetite regulation 126
- Spices, Ethiopian 'chow', antibacterial action, rat 77A
- Starch, dietary, effect on lipoprotein lipase activity, adipose tissue, rat 12A
- Starch, intestinal absorption, man 249
- Stomach, role in digestion of proteins 18
- Stress, effect on calcium metabolism, sheep 58A
- Sucrose, dietary, effect on lipoprotein lipase activity, adipose tissue, rat 12A
- Sucrose, dietary, effect on serum glucose and fructose concentration, atherosclerosis, man 92A
- Sucrose, intestinal absorption, man 249
- Sucrose-free diet, effect on glucose tolerance test, man 63A
- Sucrose-free diet, effect on serum lipid levels, man 71A
- Sucrose-induced hyperglyceridaemia, relationship with chromium, rat 74A
- Sucrose syrup, effect on dental caries and fat deposition, rat 64A
- Sugar(s) *see also* Fructose, Galactose, Glucose, Lactose, Molassed sugar-beet pulp, Sucrose, Triosephosphate
- Sugar(s), high dietary intake, effect on drug-metabolizing enzyme activity, liver, rat 27A
- Sulphate, dietary, effect on food intake, sheep 20A
- Sulphuric acid, dietary, effect on food intake and metabolism, sheep 21A
- Sunflower oil, duodenal infusion, effect on milk fat yield and composition, cow 28A
- Surgery, effects of removal of large intestine, neonatal pig 26A
- Surgery, effects of subsequent parenteral nutrition 180
- Surgery, effect on energy requirements 158
- Surgery, effect on metabolism, elderly patients 172
- Swayback, genetic variation in incidence, sheep 92
- Technique, automatic sampling, duodenal digesta 40A
- Technique, cross-circulation dialysis, food intake regulation, sheep 22A
- Technique(s), measuring flow of duodenal digesta, sheep 18A
- Temperature, cold exposure, effect on energy expenditure, sheep 215
- Temperature, effect on energy metabolism after injury 160
- Temperature, effect on energy retention, pig 33A
- Temperature, effect on metabolism and nutrition, burned patients 165
- Temperature, effect on recovery from injury 152
- Thiaminase, rumen, implication in cerebral necrosis 7A
- Time-of-day, effect on metabolic patterns, resolution of food intake and lighting effects 1
- Trace elements, problems of determining requirements for animals 83
- Trauma *see* Injury
- Triglyceride(s), serum, effects of glucose and fructose, primate 278
- Triglyceride concentration, plasma, relationship to dietary fat intake after glucose syrup drink, man 92A
- Triglyceride fatty acids, adipose tissue, effect of lipid-free diet, lamb 48A
- Triosephosphate(s), glucose metabolism, ruminant 268
- Tritiated water, total body water measurement, rat 54A
- Tryptophan, effect of  $\gamma$ -radiation, wheat gluten 68A
- Tryptophan, rapid biological assay technique 69A
- Turnover time, solids and liquids, rumen 37
- Undernutrition, pre- and postnatal, effect on brain acetylcholinesterase, rat 67A
- Urea, dietary, effect on nitrogen transformation, alimentary tract, poor-quality hay diet, sheep 15A
- Urea, intraruminal administration, effect on ammonia metabolism 7
- Urea, influx to rumen, effect of diet and pentagastrin, sheep 3A
- Urea, nutritive value, growing lamb 56A
- Urea, recirculation, significance in endogenous loss of protein 65
- Vitamin(s) *see also* Folates, Folic acid
- Vitamin B complex, absorption, germ-free chick 10A
- Vitamin C absorption, mouth, man 81A
- Vitamin C stability, machine-peeled potatoes 94A
- Vitamin D, control of protein biosynthesis 49

- Vitamin D metabolism, role in calcium nutrition  
47
- Vitamin content, foodstuffs, effect of processing  
and cooking 69
- Vitamin deficiency, problems of assessment 66
- Volatile fatty acids *see* Fatty acids, volatile
- Water content, body, measurement by tritiated  
water, rat 54A
- Zinc deficiency, effects observed in pair-fed rats  
5
- Zinc excretion, after injury 156
- Zinc metabolism, health and disease, man 40A