## **Index of Subjects**

- Absorption, glucose, small intestine, lamb, sheep, rat 57
- Absorption of nitrogen, rumen, sheep 361
- Absorption site, encapsulated methionine, intestine, cattle 335
- Adipose tissue composition, various sites, man 377
- Adrenal glands, effect of dietary salt supplement, steer 201
- Age, effect on tissue deposition of L-xyloascorbic acid, guinea-pig 77
- Amino acid(s) see also Methionine
- Amino acid composition, intestinal digesta, effect of level of grain intake, cattle 347
- Amino acid concentrations, serum, effect of orally administered glucose, kwashiorkor, Ugandan child 253
- Ammonia, digesta, concentration along alimentary tract, calf 181
- Ammonia, production in caecal fluid and faeces, sheep 88
- Ammonia, rate of production, rumen, sheep 358
- Ammonia, utilization by ruminal micro-organisms sheep 354
- Analytical technique, diaminopimelic acid, duodenal digesta 169
- Analytical technique, unesterified fatty acids, duodenal digesta 309
- Artificial rearing, pig 113
- Ascorbic acid, growth stimulant, copper-supplemented diets, pig 381
- Ascorbic acid depletion, effect on bone metabolism, guinea-pig, Bantu male 367
- Baboon 323
- Bacteria, rumen, nitrogen metabolism, sheep 351
- Bacteria, ruminal, nitrogen content, duodenal fluid, ruminant 171
- Barley diet, effect of urea or fish-meal supplement, sheep 243
- Barley and soya-bean diets, effect of proportions on site of digestion, sheep 225
- Bile, effect on encapsulated methionine, cattle 333 Bile, effect on solubilization of unesterified fatty
- acids, duodenal digesta, sheep 307
- Bird(s) see also Chick
- Bird(s) 127, 135
- Blood see Plasma
- Body composition, effects of temperature and plane of nutrition, pig 259
- Bone composition, nestling blackbird and thrush 132
- Bone marrow, ferritin concentration, copperdeficient rat 25
- Bone metabolism, effect of siderosis and ascorbic acid depletion, guinea-pig, Bantu male 367

- Brain size, effects of marasmus, child 107
  - Breeding, effect of dietary newly growing heather, captive red grouse 135
  - Bromine content, various tissues, man 317
  - Bromine salts, growth stimulants, copper-supplemented diets, pig 381
  - Calcium, gut contents, nestling blackbird and thrush, 133
  - Calcium content, rat's milk 296
  - Calf see also Cattle
  - Calf 181
  - Calorie deficiency, early, effect on learning ability, rat 391
  - Carbohydrate see also Energy, Starch, Sugar
  - Carbohydrate, dietary source, effect on serum lipid concentration, rat 217
  - Carbohydrate(s), fed with proteins, effect on course of protein digestion, rat 299
  - Cattle see also Calf
  - Cattle 165, 191, 333, 343
  - Cerebro-spinal fluid, composition, marasmic child 109
  - Chick see also Bird(s)
  - Chick 235
  - Child see also Man
  - Child 97, 107, 145, 253, 273, 317, 377
  - Composition, body, changes during growth, nestling blackbird and thrush 127
  - Copper deficiency, effect on iron metabolism, rat 15 Copper-supplemented diets, effect of various
  - growth stimulants, pig 381 Cranial transillumination, determination of brain size in severe malnutrition, child 107
  - Creatine kinase activity, serum, kwashiorkor recovery phase, child 273
  - Creatinine excretion, kwashiorkor recovery phase, child 273
  - Cyanocobalamin, dietary supplement, effect on vitamin  $B_{12}$  content of milk, rat 296
  - Diaminopimelic acid, analytical technique, duodenal fluid, ruminant 169
  - Diaminopimelic acid, bacterial nitrogen marker, duodenum, ruminant 165
  - Digestion along alimentary tract, various concentrate diets, sheep 225, 243
  - Digestion, lignin degradation, ruminant 3
  - Digestion of protein, course of, effect of feeding carbohydrate with proteins, rat 299
  - Digestion, protein, intestines, effect of level of grain intake, cattle 343
  - Diuretic drug, effect on food intake, sheep 156
  - Duodenum, bacterial nitrogen in digesta, ruminant 171

1971

- Duodenum, digesta, effect of level of grain intake, cattle 345
- Duodenum, digesta composition, nitrogen and nucleic acid, calf 183
- Duodenum, digesta flow measurement, apparatus, sheep 8
- Egg laying, effect of dietary newly growing heather, captive red grouse 138
- Electrolytes, ruminal infusion, effect on food intake, sheep 157
- Energy utilization, theoretical effects of prevention of rumen fermentation, lamb 31
- Enzyme(s) see also Creatine kinase, Trypsin, Urease
- Enzyme activity, cellulolytic, ruminal and caecal contents, sheep 93
- Enzyme activity, large intestine, assay procedures, sheep 86
- Enzyme activity, proteolytic, ruminal, caecal and faecal liquor, sheep 90
- Enzyme activity, proteolytic, stomach wall and pancreas, effect of heat-treated whole-milk powder, baby pig 120
- Erythrocyte membrane, effect of kwashiorkor, Ugandan child 145
- Fat, dietary, effect on rumen fermentation, lamb 51
- Fatty acid composition, adipose tissue, various sites, man 377
- Fatty acids, unesterified, duodenal digesta, analytical technique 309
- Fatty acids, unesterified, effect of bile on solubilization, duodenal digesta, sheep 307
- Fatty acids, volatile, heat increment of metabolism, lamb 38
- Fatty acids, volatile, rate of production, barley diet, sheep 243
- Feed see also Food
- Feed additives, copper-supplemented diets, pig 381
- Feed supplement, encapsulated methionine, cattle 333
- Ferritin, extraction and estimation, bone-marrow, rat 16
- Fish meal, dietary supplement, effect on digestion of barley, various sites, sheep 243
- Flow, intestinal digesta, effect of level of grain intake, cattle 345
- Flow measurement, intestinal digesta, apparatus, sheep 8
- Food see also Feed
- Food additives, brominated vegetable oil, tissue bromine content, man 317
- Food intake, effect of dietary salt supplement, steer 195
- Food intake, effect of proportions of soya-bean and barley in diet, sheep 227
- Food intake at a single meal, sheep 153
- Glucose absorption, small intestine, lamb, sheep, rat 57

- Glucose, oral dose, effect on serum free amino acid concentrations, kwashiorkor, Ugandan child 253
- Goitre, endemic, iodine metabolism, woman, child, Ceylon 97
- Grain intake, effect on protein digestion, intestines, cattle 343
- Growth, chemical composition, nestling blackbird and thrush 127
- Growth, effect of protein-calorie deficiency, rat 175
- Growth, effects of temperature and plane of nutrition, pig 259
- Growth, ruminal micro-organisms, sheep 357
- Growth stimulants, copper-supplemented diets, pig 381

Guinea-pig 77, 367

- Haemolysis, erythrocyte, effect of kwashiorkor, Ugandan child 148
- Hatchability, eggs, effect of dietary newly growing heather, captive red grouse 139
- Heat increment from end-products of digestion, lamb 37
- Heat treatment, effect on nutritive value of wholemilk powder, baby pig 113
- Heather, newly growing, dietary, effect on breeding, captive red grouse 135
- Hexose, dietary intake, effect on absorptive capacity for glucose, small intestine, lambs, sheep 67
- Hormones, sexual, effect on serum triglycerides, high-sucrose diets, baboon 323
- Ileum, digesta composition, nitrogen and nucleic acid, calf 187
- Intelligence testing, modified Hebb-Williams apparatus, rat 394
- Intestinal loop, surgical procedure, lamb, sheep, rat 59
- Intestine, large, nitrogen metabolism, sheep 85
- Intestine, protein digestion, effect of level of grain intake, cattle 343
- Intestine, release of encapsulated methionine, cattle 333
- Intestine, small, glucose absorption, lamb, sheep, rat 57
- Intestine, small, relationship of length and weight to body-weight, lamb, sheep 61
- Iodine metabolism, endemic goitre, woman, child, Ceylon 97
- Iron concentration, liver storage, relationship to bone metabolism, Bantu male 368
- Iron metabolism, copper-deficient rat 15
- Iron overload, effect on tissue ascorbic acid and bone metabolism, guinea-pig 369
- Kwashiorkor, effect on erythrocyte membrane, Ugandan child 145
- Kwashiorkor, recovery phase, metabolic changes, child 273
- Kwashiorkor, serum free amino acid concentrations, effect of orally administered glucose, Ugandan child 253

- Lamb see also Sheep
- Lamb 31, 57
- Learning ability, effects of early calorie and protein deficiences, rat 391
- Lecithin, effect on solubilization of unesterified fatty acids, duodenal digesta, sheep 311
- Lecithin, erythrocyte membrane, effect of kwashiorkor, Ugandan child 148
- Lignin, degradation and ruminant digestion 3
- Lignin determination, pre-treatment technique 4
- Lipid concentration, serum, effect of dietary changes, rat 213
- Lipid(s), dietary source, effect on serum lipid concentration, rat 221
- Lipid digestion, various sites, sheep 232, 243
- Lipid-bound bromine content, various tissues, man 317
- Liver, storage, iron concentration, relationship to bone metabolism, Bantu male 368
- Malnutrition, effect on brain size, child 107
- Malnutrition, early, effect on learning ability, rat 391
- Man see also Child, Woman
- Man 317, 367, 377
- Marker(s), bacterial nitrogen, duodenum, use of diaminopimelic acid, ruminant 165
- Marker, lignin, degradation in digestive tract, sheep 91
- Membrane, erythrocyte, effect of kwashiorkor, Ugandan child 145
- Methane, energy losses, rumen fermentation, lamb 34
- Methionine, encapsulated, release in intestine, cattle 333
- Milk, effect of heat treatment on clotting in stomach, baby pig 116
- Milk, vitamin B<sub>12</sub> content, rat 295
- Milk powder, effect of heat treatment on nutritive value, baby pig 113
- Mineral(s) see also Bromine, Calcium, Copper, Iodine, Iron, Sodium, Potassium
- Mineral composition, changes during growth, nestling blackbird and thrush 130
- Morbidity, effect of heat treatment of spray-dried whole-milk powder, baby pig 124
- Muscle, size determined by X-rays, child 275
- Nitrogen, bacterial, duodenum, diaminopimelic acid as a marker, ruminant 165
- Nitrogen, digesta, concentration along alimentary tract, calf 181
- Nitrogen, estimation of loss as skin and hair, pig 263 Nitrogen, gaseous fraction, rumen, sheep 365
- Nitrogen incorporation efficiency, measure of protein quality, various lines of peas 209
- Nitrogen metabolism, effect of temperature and plane of nutrition, pig 259
- Nitrogen metabolism, large intestine, sheep 85
- Nitrogen metabolism, sheep 351
- Nucleic acid, metabolism, concentration along alimentary tract, calf 181
- Nutrition see Plane of nutrition

- Nutritive value, effect of trypsin inhibitor, soya bean, chick, rat 235
- Nutritive value, hydrocarbon-grown yeast, growing pig 285
- Nutritive value, spray-dried whole-milk powder, effect of heat treatment, baby pig 113
- Obituary Notice, Benjamin Stanley Platt 1
- Oesophageal groove see Reticular groove
- Oil(s), brominated, dietary, relationship to tissue bromine content, man 317
- Osmolality, rumen fluid, effect on food intake, sheep 157
- Osteoporosis, relationship of siderosis and ascorbic acid depletion, Bantu male 367
- Pancreatin, effect on encapsulated methionine, cattle 333
- Parotid glands, effect of dietary salt supplement, steer 201
- Pea, protein quality of various lines 207
- pH, effect on proteolytic activity, ruminal and caecal liquor, sheep 91
- Phospholipids, erythrocyte membrane, effect of kwashiorkor, Ugandan child 146
- Pig 113, 259, 381
- Plane of nutrition and environmental temperature, effects on growth and metabolism, pig 259
- Plasma amino acid concentrations, effects of feeding carbohydrate with protein, rat 304
- Plasma composition, effect of dietary salt supplement, steer 199
- Plasma, copper and iron metabolism, rat 18
- Platt, Benjamin Stanley, Obituary Notice 1
- Potassium metabolism, effect of dietary salt supplement, steer 197
- Protein-calorie deficiency, effect on growth and reproduction, rat 175
- Protein deficiency, early, effect on learning ability, rat 391
- Protein, dietary source, effect on serum lipid concentration, rat 218
- Protein digestion, various sites, sheep 228, 243
- Protein(s), fed with carbohydrate, effect on course of digestion, rat 299
- Protein quality, various lines of peas 207
- Protozoa, rumen, nitrogen metabolism, sheep 351
- Rat 15, 57, 175, 207, 213, 235, 295, 299, 391
- Reproduction, effect of dietary newly growing heather, captive red grouse 135
- Reproduction, effect of protein-calorie deficiency, rat 175
- Reticular groove, closure stimulation, lamb 52
- Rumen, bypass, encapsulated methionine, cattle 333
- Rumen fermentation, prevention, effect on dietary energy and protein utilization, theoretical considerations, lamb 31
- Rumen fluid, sodium and potassium concentration, effect of dietary salt supplement, steer 147

https://doi.org/10.1079/BJN19710106 Published online by Cambridge University Press

- Salicylate, sodium, copper-supplemented diets, pig 381
- Saline, peritoneal infusion, effect on food intake, sheep 156
- Saliva composition, effect of dietary salt supplement, steer 197
- Serum lipid concentration, effect of dietary changes, rat 213
- Sex differences, hormonal effects on serum triglycerides, high-sucrose diets, baboon 323
- Sex, effect on tissue deposition of L-xyloascorbic acid, guinea-pig 77
- Sheep see also Lamb
- Sheep 5, 57, 85, 153, 165, 225, 243, 307, 351
- Siderosis, effect on bone metabolism, Bantu male 367
- Sodium content, rat's milk 296
- Sodium requirement, all-sorghum grain diet, steer 191
- Sodium salicylate, growth stimulant, coppersupplemented diets, pig 381
- Soya-bean and barley, proportions in diet, effect on site of digestion, sheep 225
- Soya bean, relationship between trypsin inhibitor and nutritive value, chick, rat 235
- Starch digestion, various sites, sheep 230, 243
- Sucrose, fed with proteins, effect on course of digestion of protein, rat 300
- Sucrose diets, effect of sex hormones on serum triglycerides, baboon 323
- Sugar(s) see Glucose, Hexose, Sucrose
- Taurocholate, effect on solubilization of unesterified fatty acids, duodenal digesta, sheep 311

- Temperature, environmental, effects on growth and metabolism, pig 259
- Triglycerides, serum, effect of sex hormones, highsucrose diets, baboon 323
- Trypsin inhibitor, relationship to nutritive value, soya bean 235
- Urea, dietary supplement, effect on digestion of barley, various diets, sheep 243
- Urease activity, ruminal, caecal and faecal contents, sheep 92
- Urine, energy losses, lamb 35
- Vitamin(s) see Ascorbic acid, Vitamin B<sub>12</sub>, L-Xyloascorbic acid
- Vitamin C see Ascorbic acid, L-Xyloascorbic acid Volatile fatty acids see Fatty acid(s), volatile
- Water intake, effect of dietary salt supplement, steer 197
- Water intake, effect of ruminal electrolyte infusion, sheep 158
- Water, ruminal infusion, effect on food intake, sheep 161
- Woman see also Man
- Woman 97

X-rays, use in determining muscle size, child 275 L-Xyloascorbic acid, tissue deposition, effect of sex and age, guinea-pig 77

Yeast, hydrocarbon-grown, nutritive value for growing pig 285