Index, Volume 98

A

ABRAHAM, S. See Sabine, John R., 312.
Alcohol and amino acid transport in the human small intestine, 229.
Alkaline phosphatase in epiphyseal cartilage of normal and zinc-deficient chicks, 83.
AL NEJJAR, Z., AND F. W. HEGGENESS. Effect of spontaneous activity on response to intermittent feeding, 177.
Amino acid composition and nutritive value, effects of severe alkali treatment of proteins, 45.
— — mixtures, imbalanced, metabolic derangements in response of rats to ingestion, 255.
— — regulation of albumin synthesis, 395.
— — retention and balance in the young rat fed varying levels of casein, 168.
— — retention and balance in the young rat fed varying levels of lactalbumin, 159.
— — transport and alcohol in the human small intestine, 222.
Amino acids and liver xanthine oxidase, influence of zinc and vitamin D in rats, 351.
— — dietary, and ambient temperature, effect on carcass fat deposition in rats, 344.
— — a-Aminoisobutyric acid, effect on arginine metabolism in chicks, 225.
Antibody formation, circulating, in scorbutic guinea pigs, 41.
Atherosclerosis and associated physiological factors in cockerels, effect of restricted energy and protein intake, 335.
Authors, Guide for, 127.
AXELROD, A. E. See Kumar, Mahendra, 41.

B

BAKEE, OLAV M. Urinary simple phenols in rats fed diets containing different amounts of casein and 10% tyrosine, 217.
BAKEE, OLAV M. Urinary simple phenols in rats fed purified and unpurified diets, 209.
BALLOUN, S. L. See Rose, R. J., 335.
BARBORIAC, JOSEPH J., AND ROBERT C. MEADE. Impairment of gastrointestinal processing of fat and protein by ethanol in rats, 373.
BARRON, GEORGE P. See Ketcheson, Marion R., 303.
BENEDICT, FRANCIS GANO. A biographical sketch, 1.
BERNHART, F. W., S. SAVITI AND R. M. TOMARELLI. Calcium and phosphorus requirements for maximal growth and mineralization of the rat, 443.
Bitter, H. A., C. J. GUBLER AND R. W. HENINGER. Effects of forced-feeding on blood levels of pyruvate, glucocorticoids and glucose and on adrenal weight in thiamine-deprived and thiamine antagonist-treated rats, 147.
BLACKMON, D. M. See Miller, W. J., 411.
Blood glucose and hepatic glycogen in rats force-fed a threonine-devoid diet, 477.
Bone mineralization in young chicks, effect of dietary magnesium and fluoride, 271.
Bunce, G. E., AND K. W. KING. Amino acid retention and balance in the young rat fed varying levels of casein, 168.
Bunce, G. E., AND K. W. KING. Amino acid retention and balance in the young rat fed varying levels of lactalbumin, 159.

C

Calcium and phosphorus requirements for maximal growth and mineralization of the rat, 443.
CAMPBELL, T. C. See Weatherbultz, W. M., 90.
Carbohydrate-containing and “carbohydrate-free” diets fed to chicks, effect of various sources of nonessential nitrogen in promoting growth, 297.
Casein, amino acid retention efficiency with, 168.
— —, tyrosine and urinary phenols in rats, 217.
CHENG, CHUAN HUAN, MARY KOCH AND ROBERT E. SHANK. Dietary regulation of transketolase activity in liver, 64.
Chick, growing, effect of dietary protein on hepatic lipogenesis, 356.
— — tissue, effect of vitamin B6 deficiency on leucine transaminase activity, 450.
Chicken, nonabsorbptive antihypercholesterolemic action of phytosterols in, 435.
Chicks, effect of a-aminoisobutyric acid on arginine metabolism, 225.
— —, fasted and fasted-refed, in vivo fatty acid and cholesterol synthesis, 367.
— —, fed carbohydrate-containing and “carbohydrate-free” diets, effect of various sources of nonessential nitrogen in promoting growth, 297.
— —, fed copper-deficient diets, effect on bone collagen and selected bone enzymes, 57.
— —, liver xanthine dehydrogenase depletion and repletion, 193.
— —, normal and zinc-deficient, histochemical studies of alkaline phosphatase in epiphyseal cartilage, 83.
— —, young, effect of dietary magnesium and fluoride on bone mineralization, 271.
— —, zinc-deficient, pathological defects in the epiphyseal cartilage, 76.
CHOLAKOS, B. V. See Scrimshaw, N. S., 9.
Cholesterol and fatty acid synthesis, in vivo, in fasted and fasted-refed chicks, 367.

493
INDEX

— lowering action of phytosterols, 435.
—, synthesis and distribution, and effect of diet at liver endoplasmic reticula and plasma membranes in lean or obese rats, 105.
Choline-deficient rats, hepatic ATP and triglyceride levels in, with and without dietary orotic acid supplementation, 188.
Cockerels, effect of restricted energy and protein intake on atherosclerosis and associated physiological factors, 335.
Copper deficiency, effect on chick bone collagen and selected bone enzymes, 57.
—, zinc and iron in the postnatal rat, 303.
Coprophagy, effect on experimental iron absorption in the rat, 95.
Cox, Dennis H. See Ketcheson, Marion R., 303.
Cox, Dennis H., Richard C. Chu and Sandra A. Schlicker. Zinc deficiency in the maternal rat during gestation, and zinc, iron, copper, and calcium content and enzyme activity in maternal and fetal tissues, 449.
Cox, Dennis H., Sandra A. Schlicker and Richard C. Chu. Excess dietary zinc for the maternal rat, and zinc, iron, copper, calcium, and magnesium content and enzyme activity in maternal and fetal tissues, 459.
Csallany, A. Saari. See H. H. Draper, 390.

D
Dallman, Peter R. See Messer, Michael, 404.
DDT effect on rats raised on alpha-protein rations: growth and storage of liver vitamin A, 319.
Diet, complete purified equine, composition, 330.
—, effect at liver endoplasmic reticula and plasma membranes, and influence of cholesterol synthesis and distribution, in lean or obese rats, 105.
—, threonine-void, force-fed to rats, studies on blood glucose and hepatic glycogen, 477.
—, threonine-free amino acid, fed to rats, tryptophan metabolism, 427.
Dietary amino acids and ambient temperature, effect on carcass fat deposition in rats, 344.
—, fat and the inhibition of hepatic lipogenesis in the mouse, 312.
—, induced depletion and repletion of avian liver xanthine dehydrogenase, 193.
—, protein, effect on hepatic lipogenesis in the growing chick, 356.
Diets, high protein, effects with normal and low energy intake on wound healing, hair growth, hair and serum zinc, and serum alkaline phosphatase in dairy heifers, 411.
E
Enzymes and minerals in maternal zinc deficiency, 449.
— and minerals, maternal and fetal, 459.
—, bone, and bone collagen formation in copper-deficient chicks, 57.
Equine diet, complete purified, composition, 330.

F
Fat and protein, impairment of gastrointestinal processing by ethanol in rats, 373.
—, dietary, and the inhibition of hepatic lipogenesis in the mouse, 312.
Fatty acid and cholesterol synthesis, in vivo, in fasted and fasted-refed chicks, 367.
— liver, influence of orotic acid as an inducing factor, in rats, 33.
—, feeding, artificial, of infant rats by continuous gastric infusion, 404.
—, intermittent, effect of spontaneous activity on response to, 177.
Feldman, Stuart. See Meyersohn, Michael, 288.
Fishman, L. See Rothschild, M. A., 395.
Fluoride and magnesium, dietary, effect on bone mineralization in young chicks, 271.
Formula concentration and growth in infants, 241.
Formulas, infant soybean, fed to baby pigs, growth, 279.
Fowler, P. R. See Miller, W. J., 411.

G
Gershoff, Stanley N. See Runyan, Thora, 113.
Gibaldi, Melo. See Meyersohn, Michael, 288.
Gippord, Elizabeth Dry. See Riley, Doris Romme, 351.
Glick, Z. See Joslyn, M. A., 119.
Glycine metabolism in rats, effect of vitamin B6 deficiency and deoxypyridoxine treatment, 113.
Growth and mineralization of the rat, calcium and phosphorus requirements, 443.
INDEX

— in rats fed tannins and phenolic compounds, 119.
— of baby pigs fed infant soybean formulas, 279.
— of chicks fed carbohydrate-containing and "carbohydrate-free" diets, effect of various sources of nonessential nitrogen in promoting, 257.
GRUBER, CHARLES. See Levenson, Stanley M., 99.
Guinea pigs, scorbutic, circulating antibody formation, 41.

H

HAHN, E. W., AND F. W. HEGGENESS. Preconception irradiation of dam and composition of offspring, 181.
HARMON, B. G. See Sugahara, M., 344.
HARRILL, INEZ. See Riley, Doris Romine, 351.
HASKELL, BETTY E. See Shiflett, J. M., 420.
HEGGENESS, F. W. See Al Nejjar, Z., 177.
Heifers, dairy, effects of high protein diets with normal and low energy intake on wound healing, hair growth, hair and serum zinc, and serum alkaline phosphatase, 411.
Hepatic ATP and triglyceride levels in choline-deficient rats with and without dietary orotic acid supplementation, 188.
— glycogen and blood glucose in rats force-fed a threonine-devoid diet, 477.
— lipogenesis in the growing chick, effect of dietary protein, 356.
— lipogenesis in the mouse, effects of dietary fat, 312.
— tyrosine transaminase rhythm, interaction of environmental lighting, food consumption and dietary protein content, 71.
Heptachlor, toxicity and metabolism, effect of dietary protein levels, 90.
HILL, D. C. See Shao, Tsang-Cheng, 225.
HOKERSTRA, W. G. See Westmoreland, Nelson, 76, 83.
HUANG, P. C. See Scrimshaw, N. S., 9.
Hydrocephalus and vitamin B12, 139.

I

Infant soybean formulas fed to baby pigs, growth, 279.
Infants, normal, relationship between formula concentration and rate of growth, 241.
Iron absorption in the rat, effect of coprophagy, 95.
—, zinc and copper in the postnatal rat, 303.
Irradiation, preconception, of dam and composition of offspring, 181.
ISRAEL, Y., J. E. VALENZUELA, I. SALAZAR AND G. UGARTE. Alcohol and amino acid transport in the human small intestine, 222.
J

JENSEN, A. H. See Sugahara, M., 344.
JOELYN, M. A., AND Z. CLICK. Comparative effects of gallotannic acid and related phenolics on the growth of rats, 119.

K

KAN, DORINNE. See Geever, Erving, 95.
KAN, DORINNE. See Levenson, Stanley M., 99.
KETCHESON, MARION R., GEORGE P. BARRON AND DENNIS H. COX. Relationship of material dietary zinc during gestation and lactation to development and zinc, iron and copper content of the postnatal rat, 303.
KIM, YOON SOO, AND JOHN P. LAMBOOY. Biochemical and physiological changes in the rat during riboflavin deprivation and supplementation, 467.
KIMURA, TOSHIZO. See Murata, Kiku, 427.
KING, K. W. See Bunce, G. E., 158, 168.
KING, KENDALL W. See Soliman, Abdel-Gawad M., 255.
KLATSKIN, GERALD. See Simon, Jerome B., 188.
KOBAYAKAWA, KATSUTO. See Fillios, Louis Charles, 105.
KOCHE, MARY. See Cheng, Chuan Huan, 64.
KONLANDE, JAMES E., AND HANS FISHER. Evidence for a nonabsorptive antihypercholesterolemic action of phytosterols in the chicken, 435.
KUMAR, MAHENDRA, AND A. E. AXELROD. Circulating antibody formation in scorbutic guinea pigs, 41.

L

Lactalbumin, amino acid retention efficiency with, 159.
Lactate dehydrogenase in thiamine deficiency, 325.
LAMBOOY, JOHN P. See Kim, Yoon Soo, 467.
LABIN, F. See Zigmond, M. J., 71.
Leucine transaminase and vitamin B6, deficiency, 429.
LEVIELLE, GILBERT A. In vivo fatty acid and cholesterol synthesis in fasted and fasted-refed chicks, 367.
LEVIELLE, GILBERT A. See Yeh, Yu-Yan, 358.
LEVENSON, STANLEY M. See Geever, Erving, 95.
LEVENSON, STANLEY M., CHARLES GRUBER AND DORINNE KAN. Similarity in passage rates of plasma proteins into the gut of germfree and conventionalized rats, 99.
Lipid mobilization, in rats exposed to cold or starvation, role of previous feeding, 25.
Liver vitamin A, effect of DDT on rats raised on alpha-protein rations, 319.
— weanling rats, dietary regulation of transketolase activity, 64.
— xanthine dehydrogenase depletion and repletion in chicks, 193.
— xanthine oxidase and plasma amino acids in rats, influence of vitamin D and zinc, 351.

M
Magnesium and fluoride, dietary, effect on bone mineralization in young chicks, 271.
Man, bile salt enhancement of riboflavin and flavin mononucleotide absorption, 288.
Martin, Y. G. See Miller, W. J., 411.
Mead, Robert C. See Barboriak, Joseph J., 373.
Men, young, partial dietary replacement of milk protein by nonspecific nitrogen, 9.
Metabolic alterations in "control animals" used in studies on biotin-deficient rats, effect of food restriction, 235.
— derangements in response of rats to ingestion of imbalanced amino acid mixtures, 255.
Metabolism and toxicity of heptachlor, effect of feeding rats different protein levels, 90.
—, arginine, effect of a-aminoisobutyric acid in chicks, 225.
—, glycine, in vitamin B12-deficient and deoxy-ribonucleic acid-treated rats, 113.
—, one-carbon, in neonatal vitamin B12-deficient rats, 139.
—, tryptophan, of rats fed a threonine-free amino acid diet, 427.
Minerals and enzymes in maternal zinc deficiency, 449.
— and enzymes, maternal and fetal, 459.
Mistry, S. P. See Patel, M. S., 235.
Moore, R. O., and F. D. Yontz. Effect of thiamine deficiency in rats on adipose tissue lactate dehydrogenase isozyme distribution, 325.
Mouse, dietary fat and the inhibition of hepatic lipogenesis, 312.


N
Neuromotor development in progeny of underfed mother rats, 18.
Nitrogen, nonessential, effect of various sources in promoting growth of chicks fed carbohydrate-containing and "carbohydrate-free" diets, 297.
—, nonspecific, partial dietary replacement of milk protein in young men, 9.

O
Osmithine-urea cycle studies nutritionally, 153.
Orotic acid, influence of, in inducing fatty liver in rats, 33.

P
Park, H. E. See Rucker, R. B., 57.
Parker, H. E. See Spierto, Francis, 271.
Phenols and tannins, effect of feeding on growth in rats, 119.
Phosphorus and calcium requirements for maximal growth and mineralization of the rat, 443.
Phytosterols in the chicken, evidence for a nonabsorptive antihypercholesterolemic action, 435.
Pigs, baby, fed infant soybean formulas, growth, 279.
Prncezuk, Andrej. See Fillios, Louis Charles, 105.
Protein and fat, impairment of gastrointestinal processing by ethanol in rats, 373.
—, deficient rats, development of spleen and thymus in offspring, 202.
—, dietary, effect on hepatic lipogenesis in the growing chick, 356.
—, dietary, effect on the toxicity and metabolism of heptachlor, 90.
— intake and energy, effect of restriction on atherosclerosis and associated physiological factors in cockerels, 335.
—, milk, partial replacement with nonspecific nitrogen in young men, 9.
Proteins, effects of severe alkali treatment on amino acid composition and nutritive value, 45.
—, plasma, similarity in passage rates into the gut of germfree and conventionalized rats, 99.

R
Rat, biochemical and physiological changes during riboflavin deprivation and supplementation, 467.
—, calcium and phosphorus requirements for maximal growth and mineralization, 443.
—, influence of coprophagy on experimental iron absorption, 95.
—, interaction of environmental lighting, food consumption and dietary protein content on hepatic tyrosine transaminase rhythm, 71.
—, maternal, excess dietary zinc, and zinc, iron, copper, calcium, and magnesium content and enzyme activity in maternal and fetal tissues, 459.
—, maternal, zinc deficiency during gestation, and zinc, iron, copper, and calcium content and enzyme activity in maternal and fetal tissues, 449.
—, postnatal, zinc, iron and copper in, 303.
—, selenium responses not related to vitamin E, 383.
—, young, fed varying levels of casein, amino acid retention and balance, 168.
— young, fed a threonine-devoid diet, tryptophan deficiency and deoxy-ribonucleic acid (DNA) and deoxyribo nucleotide (DN) synthases, 427.
—, fed a threonine-free amino acid diet, tryptophan metabolism, 427.
—, fed diets containing different amounts of casein and 10% tyrosine, urinary simple phenols in, 217.
—, fed different protein levels, toxicity and metabolism of heptachlor, 90.
—, fed purified and unpurified diets, urinary simple phenols in, 209.
—, fed tannins and phenolic compounds, effect on growth, 119.
—, force-fed a threonine-devoid diet, studies on blood glucose and hepatic glycogen, 477.
—, germfree and conventionalized, similarity in passage rates of plasma proteins in the gut, 99.
—, impairment of gastrointestinal processing of fat and protein by ethanol, 373.
—, induction of orotic acid fatty liver, studies of influencing factors, 33.
—, infant, artificial feeding by continuous gastric infusion, 404.
—, influence of zinc and vitamin D on plasma amino acids and liver xanthine oxidase, 351.
—, lean or obese, cholesterol synthesis and distribution and effect of diet at liver endoplasmic reticula and plasma membranes, 105.
—, neonatal vitamin B$_3$-deficient, study of one-carbon metabolism, 139.
—, protein-deficient, development of spleen and thymus in offspring, 202.
—, response to ingestion of imbalanced amino acid mixtures, metabolic derangements, 255.
—, starved or exposed to cold, influence of previous feeding on lipid mobilization, 25.
—, thiamine-deprived and thiamine antagonist-treated, effects of forced-feeding on blood levels of pyruvate, glucocorticoids and glucose and on adrenal weight, 147.
—, underfed mother, neuromotor development in progeny, 18.
—, weanling, dietary regulation of liver transketolase activity, 64.
Renner, Ruth. Effectiveness of various sources of nonessential nitrogen in promoting growth of chicks fed carbohydrate-containing and “carbohydrate-free” diets, 297.
Riboflavin and flavin mononucleotide absorption in man, bile salt enhancement, 288.
—, deprivation and supplementation in the rat, biochemical and physiological changes, 467.
Riley, Doris Rome, Inez Harrell and Elizabeth Dyar Gifford. Influence of zinc and vitamin D on plasma amino acids and liver xanthine oxidase in rats, 351.
Rock, G. C. Nutritional evidence for the absence of the complete ornithine-urea cycle in the insect, Argyrotaenia velutinana (Lepidoptera: Tortricidae), 153.
Rogers, J. C. See Rucker, R. B., 57.
Rogers, J. C. See Spierto, Francis, 271.
Rose, R. J. and S. L. Balloun. Effect of restricted energy and protein intake on atherosclerosis and associated physiological factors in cockerels, 335.
SCHNEIDER, DONALD L., AND HERBERT P. SACKET. Growth of baby pigs fed infant soybean formula, 279.

SCHOLZ, R. W., AND W. R. FRAETHERSTON. Dietary-induced depletion and repletion of avian liver xanthine dehydrogenase, 193.


Selenium responses in the rat not related to vitamin E, 363.

SHANK, ROBERT E. See Cheng, Chuan Huan, 64.

SHAO, TSANG-CHENG, AND D. C. HILL. Effect of L-aminoisobutyric acid on arginine metabolism in chicks, 225.


SHIFLETT, J. M., AND BETTY E. HASKELL. Effect of vitamin B6 deficiency on leucine transaminase activity in chick tissue, 420.

SHOEMAKER, W. J. See Zigmond, M. J., 71.


SIDRANSKY, H., D. S. WAGLE, M. BONGIORNO, AND E. VERNEY. Studies on blood glucose and hepatic glycogen in rats forced-fed a threonine-deprived diet, 477.

SIMON, JEROME B., ROBERT SCHEIG, AND GERALD KLAYSKEN. Hepatic ATP and triglyceride levels in choline-deficient rats with and without dietary erotic acid supplementation, 188.


SLUMP, P. See de Groot, A. P., 45.

SOLIMAN, ABDEL-GAWAD M., AND KENDALL W. KING. Metabolic derangements in response of rats to ingestion of imbalanced amino acid mixtures, 255.

Soybean formulas, infant, fed to baby pigs, growth, 279.

SWEERT, FRANCIS, J. C. ROGLER, AND H. E. PARKER. Effect of dietary magnesium and fluoride on bone mineralization in young chicks, 271.

STOWE, HOWARD D. Composition of a complete purified equine diet, 330.

STUCK, ALBERTO GALFORE. See Messer, Michael, 404.

Test, simplified hemolysis, for vitamin E deficiency, 390.

THANANGKUL, L. See Scrimshaw, N. S., 9.

THOMAS, LORA N. See Foeman, Samuel J., 241.


TINSLEY JAN J. DDT effect on rats raised on alpha-protein rations: growth and storage of liver vitamin A, 319.

TOMARELLO, R. M. See Bernhart, F. W., 443.

Tryptophan metabolism of rats fed a threonine-free amino acid diet, 427.

U

UGARTE, G. See Israel, Y., 222.

Urinary simple phenols in rats fed diets containing different amounts of casein and 10% tyrosine, 217.

— simple phenols in rats fed purified and non-purified diets, 209.

V

VALenzuela, J. E. See Israel, Y., 222.

VERNER, E. See Sidransky, H., 477.

Vitamin A in liver, effect of DDT on rats raised on alpha-protein rations, 319.

— B6 deficiency, effect on glycine metabolism in rats, 113.

— B6 deficiency, effect on leucine transaminase activity in chick tissue, 420.

— B12 and hydrocephalus, 139.

— D and zinc, influence on plasma amino acids and liver xanthine oxidase in rats, 351.

— E deficiency, a simplified hemolysis test for, 390.

— E, selenium responses not related to in the rat, 383.

W

WAGLE, D. S. See Sidransky, H., 477.

WEATHERHOLTZ, W. M., T. C. CAMPBELL, AND R. E. WEBB. Effect of dietary protein levels on the toxicity and metabolism of heptachlor, 90.

WEBB, R. E. See Weatherholtz, W. M., 90.

WESTMORELAND, NELSON, AND W. G. HOEKSTRA. Histochemical studies of alkaline phosphatase in epiphyseal cartilage of normal and zinc-deficient chicks, 83.

WESTMORELAND, NELSON, AND W. G. HOEKSTRA. Pathological defects in the epiphyseal cartilage of zinc-deficient chicks, 76.


WOODARD, JAMES C. Study of one-carbon metabolism in neonatal vitamin B6-deficient rats, 139.

WURTMAN, R. J. See Zigmond, M. J., 71.
Y


YOKONO, OSAMU. See Fillios, Louis Charles, 105.

YONTZ, F. D. See Moore, R. O., 325.

YOUNG, V. R. See Scrimshaw, N. S., 9.


Z

ZIGMOND, M. J., W. J. SHOEMAKER, F. LARIN AND R. J. WURTMAN. Hepatic tyrosine transaminase rhythm: interaction of environmental lighting, food consumption and dietary protein content, 71.

Zinc and vitamin D, influence on plasma amino acids and liver xanthine oxidase in rats, 351.

— deficiency, effect on alkaline phosphatase in epiphyseal cartilage of chicks, 83.

— deficiency in the maternal rat during gestation, and zinc, iron, copper, and calcium content and enzyme activity in maternal and fetal tissues, 449.

— deficiency, pathological defects in epiphyseal cartilage of chicks, 76.

— excess dietary, for the maternal rat, and zinc, iron, copper and magnesium content and enzyme activity in maternal and fetal tissues, 459.

—, iron and copper in the postnatal rat, 303.