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RESEARCH IN HOME ECONOMICS

at the

LAND-GRANT INSTITUTIONS

1937-1938

Compiled by

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EXPLANATORY NOTE

This compilation of information on the present status of research in Home Economics at Land-Grant Institutions attempts to cover research in progress as of November 1, 1937, and publications from November 1, 1936, to November 1, 1937. The lists are limited for the most part to research conducted in home economics departments. Although it is recognized that research of value to one or another of the various subject matter divisions of home economics is being conducted in other departments of the Land-Grant Institutions, space limitations prevent the inclusion of such research except as it is of cooperative nature with home economics, or is being conducted especially for home economics in institutions where there is little or no research in the home economics department.

In section I research in progress is indicated by project title, date of approval by the Office of Experiment Stations, U.S.D.A. if the project is supported in part or as a whole by Federal funds, names of project leaders and research workers, and sources of financial support. The terms Purnell, Adams, Hatch, and Bankhead-Jones refer to Federal funds provided for research at the State agricultural experiment stations under these Congressional Acts. Brackets are used to indicate the departments other than Home Economics either cooperating in the research, in which case only the names of the cooperating research workers and departments are bracketed, or entirely responsible for the research, in which case the project titles are also included within the brackets.

In section II, covering the publications of the year, precedence is given to State agricultural experiment station publications. Many of these are available on request from the station in question. References to journal articles are given in the form used in the Experiment Station Record, which publishes abstracts of most of the publications listed.

ALABAMA

I.

[Studies of the vitamin B complex, 6/16/27, W. D. Salmon and G. A. Schrader, Animal Husbandry] (Purnell).

[Pathological conditions associated with a lack of the vitamin B complex, 6/16/27, W. D. Salmon and C. O. Prickett, Animal Husbandry] (Adams).

[A study of quality in cowpeas and soybeans for human food, 12/6/35, W. D. Salmon and W. C. Sherman (Bankhead-Jones)].

II.

Alleviation of vitamin B deficiency in the rat by certain natural fats and synthetic esters, W. D. Salmon and J. G. Goodman. Jour. Nutr. 13 (1937), pp. 477-500.

Symptomatology and pathology of potassium and magnesium deficiencies in the rat, G. A. Schrader, C. O. Prickett and W. D. Salmon. Jour. Nutr. 14 (1937), pp. 85-109.

ARIZONA

I.

The relation of nutrition to "mottled enamel" endemic in certain Arizona communities, 7/10/31, M. C. Smith (Purnell).

The availability for hemoglobin formation of iron and copper in certain dried fruits and the effect of the sulfuring process thereupon, 10/28/35, M. C. Smith, L. Otis, H. Spector, and C. Ridder (Purnell).

The vitamin content of certain foodstuffs, including the effect of cooking and comparison of chemical and biological methods of assay, 10/28/35, M. C. Smith, L. Otis, and H. Spector (Purnell).

II.

Progress report in Arizona Sta. Rpt. 1936, pp. 63-68.

The effect of storage upon the vitamin A content of alfalfa hay, M. C. Smith. Jour. Agr. Res. [U. S.], 53 (1936), pp. 681-684.

Hemoglobin regeneration in anemic rats in relation to iron intake, M. C. Smith and L. Otis. Jour. Nutr., 13 (1937), pp. 573-582.

Sex variations in the utilization of iron by anemic rats, M. C. Smith and L. Otis. Science, 85 (1937), pp. 125, 126.

The biological value of the proteins of Hegari and the supplemental value of certain protein concentrates, M. C. Smith and L. Otis. Jour. Agr. Res. [U. S.], 54 (1937), pp. 135-146.

The effect of copper in the preparation of anemic rats upon their subsequent response to iron, M. C. Smith and L. Otis. Jour. Nutr. 14 (1937), pp. 365-372.

Metabolic studies of human subjects on a skimmed milk and banana diet, R. Sainsbury and M. S. Smith. Jour. Home Econ. 29 (1937), pp. 468-471.

ARKANSAS

I.

A study of the factors which affect the quality of canned tomatoes, 5/1/34, H. Reynolds (Purnell).

The causes and prevention of spoilage of home-canned vegetables in Arkansas, 5/1/34, H. Reynolds (Purnell).

Fresh and canned tomato juice as a means of therapy for ascorbic acid sub-nutrition in rural school children, 4/14/36, H. Reynolds (Purnell).

An analysis of a few of the staple cotton materials used extensively for children's clothing, 5/1/34, O. Smenner (Purnell).

Health services and costs in certain rural areas of Arkansas, 4/4/36, I. C. Wilson and [W. H. Metzler, Rural Sociology] (Purnell).

Marketing of products of home industries in Arkansas, 4/23/36, I. C. Wilson and [O. J. Hall, Rural Sociology] (Bankhead-Jones).

The effect of baking temperature and sodium bicarbonate on the stability of vitamin B₁ in rice polish, 10/20/36, Z. C. Battey (State).

II.

Progress report in Arkansas Sta. Bul. 337 (1936), pp. 9-11, 46-50.

Analysis of some staple cotton materials used extensively for children's clothing, O. Smenner. Ark. Sta. Bul. 350 (1937), pp. 38.

Seasonal influences which affect the quality of canned tomatoes, M. E. Smith. Fruit Prod. Jour. and Amer. Vinegar Indus. 16 (1937), No. 10, pp. 302-304; No. 11, pp. 336-337, 345; No. 12, pp. 364-366, 377.

CALIFORNIA (Berkeley)

I.

The effect of pre-digestion on the nutritive value of heated casein, A. Wiens and A. F. Morgan (Departmental).

A study of the rate of clearing of cholesterol from fatty livers of rats and of the lipids in the cleared livers, H. L. Gillum (Departmental).

A study of the changes in physical and chemical constants of fat absorbed by doughnuts, E. L. Frederick (Departmental).

The effect of vitamin B₂ - deficient diets on reproduction in rats, A. F. Morgan and L. M. Morse. (Departmental).

The vitamin content of California grape juices and wines, A. F. Morgan and H. G. Davison. (Departmental).

The comparative absorption of plant and animal sterols by the guinea pig, R. Okey (Departmental).

The production of cataract in rats fed lactose and vitamin B₂ - low diets, B. B. Cook (Departmental).

The effect of lactose on calcium metabolism of rats, C. A. Handley (Departmental).

The rate of deterioration of vitamin C of fruit juices under refrigeration, H. V. Schulze and A. F. Morgan (Departmental).

Physical properties of soybean proteins and their utilization in food preparation, B. M. Watts (Departmental).

CALIFORNIA (Berkeley)

II.

A comparison of the hypervitaminoses induced by irradiated ergosterol and fish liver oil concentrates, A. F. Morgan, L. Kimmel, and N. C. Hawkins. Jour. Biol. Chem., Proc. XXI, 120, 121; 120 (1937), pp. 85-102.

The role of nutrition in tuberculosis control, A. F. Morgan. Med. Woman's Jour., 44 (1937), pp. 132-135.

Vitamin B2 deficiencies as influenced by dietary carbohydrate, A. F. Morgan, B. B. Cook, and H. G. Davison. Jour. Nutr., 13 (1937), suppl. pp. 12, 13.

A note on the nutritive value of "glaxo" and "light white" caseins, A. F. Morgan and E. O. Greaves. Biochem. Jour., 31 (1937), pp. 1553-1556.

Whipping ability of soybean proteins, E. M. Watts, Indus. and Engin. Chem. 29 (1937), p. 1009.

CALIFORNIA (Davis)

I.

The mineral and vitamin C content of nutrient culture vegetables as compared to pure strain vegetables of the same variety, M. Maxwell and J. T. Manchesian. (State)

Additional studies on the effect of certain fish meals and fish oils in the ration on the flavor of the turkey, L. C. Struve [in cooperation with Poultry Husbandry Division] (State).

The adaptability of the Baer fiber sorter for determining the mean fiber length of carded wools, D. B. Rubel [in coop. with J. F. Wilson, Animal Husbandry] (State).

II.

The use of honey as the sweetening ingredient in cakes, H. Morgan. Jour. Home Econ. 29 (1937), pp. 45-48.

COLORADO

I.

The baking of flour mixtures at high altitudes.--II, Physicochemical factors. Revised 8/15/32, M.A. Barmore (Purnell and State).

A study of factors affecting the culinary quality of potatoes, 11/5/34, M. A. Barmore (Purnell).

The relation of readily soluble soil minerals to the composition and quality of Colorado potatoes, 4/28/34, [J. W. Tobiska, Chemistry], M. A. Barmore, and [A. M. Binkley, Horticulture] (Adams).

COLORADO

II.

Progress report in Colorado Sta. Rpt. 1936, pp. 29, 30.

Recent developments in the chemistry of storage and preparation of foods, M. A. Barmore. Food Res., 1 (1936), pp. 383-398.

Potato mealiness and changes in softness on cooking, M. A. Barmore. Food Res., 2 (1937), pp. 377-383.

CONNECTICUT (Storrs)

II.

The physical equipment of homes in relation to their residential holding power, J. H. Hypes. Jour. Home Econ., 29 (1937), pp. 397-404.

Basal metabolism of Connecticut State college students, E. C. Rogers. Abs. in Jour. Home Econ., 29 (1937), p. 571.

FLORIDA

I.

A study of the pathologic changes in tissues and organs of animals affected by deficiency diseases or by toxic substances, 10/9/33, C. F. Ahmann (Purnell).

An investigation of human dietary deficiency in Alachua County, Florida, with special reference to nutritional anemia in relation to the composition of home-grown foods, 4/16/34, O. D. Abbott and C. F. Ahmann (Purnell).

The chemical composition and nutritive value of several Florida honeys, 9/28/36, C. F. Ahmann, O. D. Abbott and [R. E. Foster] (Purnell).

A study of the jelling properties of several varieties of Florida grapes, 9/28/36, O. D. Abbott (Purnell).

A standardization of home canned tomatoes and tomato juice, 9/28/36, O. D. Abbott and [M. Cobb, Extension] (Purnell).

II.

Progress report in Florida Sta. Rpt. 1936, pp. 62, 63, 70-72, 79, 80.

Citrus fruits in nutrition, O. D. Abbott. Fla. State Hort. Soc. Proc. 48 (1935), pp. 61-64.

Studies of nutritional anemia of rural school children in certain areas of Florida, O. D. Abbott, O. C. Bryan, and W. M. Neal. Assoc. South. Agr. Workers Proc. 37-38 (1936-1937): 257-258.

Effects of diets low in vitamin A on the blood picture of adults, C. F. Ahmann. Assoc. South. Agr. Workers Proc. 37-38 (1936-1937): 254.

Investigation of the vitamin C contents of Florida fruits and vegetables. 1. Citrus, O. D. Abbott and R. B. French. Abs. in Jour. Home Econ., 29 (1937), pp. 568.

GEORGIA

I.

Dark adaptation in school children, 4/5/37, L. Ascham (Purnell).

Available iron and available calcium in pasture plants, 7/30/37 - revised 6/15/37, L. Ascham, M. Speirs, D. Maddox, [O. E. Sell, Agronomy and K. T. Holley, Chemistry] (Purnell).

Utilization of fruits and vegetables and their by-products, 6/12/25 - revised 7/13/37, [H. P. Stuckey, H. L. Cochran, J. E. Bailey, M. M. Murphy, and F. F. Cowart, Horticulture; K. T. Holley, W. L. Brown, and T. A. Pickett, Chemistry] and L. Ascham (Purnell).

The ascorbic acid content of southern grown fruits and vegetables, 9/4/35, L. Ascham.

II.

The vitamin C content of Puerto Rico sweet potato, C. L. Newton and G. C. Lowry. Jour. Home Econ. 29 (1937), pp. 114-117.

Peanut meal: Food value and uses, L. Ascham. Georgia Sta. Bul. 195 (1936), pp. 18.

HAWAII

I.

Vitamin determination of Hawaiian foods and feeds, 5/31/29 - Revised 8/30/33. Vitamins A, B, C, and G of foods grown in Hawaii, including chemical determinations of vitamin C; organic nutrients and Ca, P, and Fe content of various foods grown in Hawaii, C. D. Miller and M. Potgieter (Hatch).

The composition, cost and adequacy of the diets of various economic and racial groups in Hawaii, with particular reference to those of growing children, 7/1/37, M. Potgieter and L. Louis (Purnell).

Chemical and biological studies of the opihi (Helcioniscus exeratus and H. argentatus), 5-26-31, C. D. Miller (Adams).

Anemia studies: The relation of blood constituents and blood-forming organs in nutritional anemia, 6/20/35, [C. J. Hamre, Zoology] and C. D. Miller (Adams and Territorial).

[Iodine content of Hawaiian foods, including fruits, vegetables, and marine foods, 6/20/35, E. M. Bilger] (Hatch).

Nutritional investigation of taro, 11/27/35, M. Potgieter and C. D. Miller (Tax Fund and Territorial).

II.

Basal metabolism of normal young men and women of various races in Hawaii and basal metabolism of Samoan men, C. D. Miller and F. G. Benedict. Hawaii Univ. Research Pubs. No. 15 (1937), pp. 3-59.

The nutritive value of papaya, C. D. Miller and R. C. Robbins. Biochem. Jour. 31 (1937), pp. 1-11.

The adsorption of vitamin B by plant tissue (by *Solanum melongena* Linn. and *Raphanus sativus* var. *longipinnatus* Bailey) when pickled with salt and rice bran, C. D. Miller. Jour. Nutr. 13 (1937), pp. 687-694.

The influence of splenectomy on recovery of nutritional anemia rats, C. J. Hamre and C. D. Miller. Bishop Museum Spec. Pub. 50, (1937), pp. 13.

IDAHO

I.

The vitamin E content of pea germ meal, 1/24/36, [A. O. Shaw and D. L. Fourn, Dairy Husbandry] and E. Woods (Purnell).

The vitamin G content of the Idaho Russet Burbank potato, 3/1/32, E. Woods (Purnell).

The vitamin A content of pasture plants under pasture conditions, 12/6/32, reopened 1935-36, [Dairy Husbandry], E. Woods and D. L. Theophilus (Purnell).

The biological value of the protein of field peas and the effect of heat treatment on pea protein, 4/8/37, [W. M. Beeson, Animal Husbandry], E. Woods and [D. W. Bolin, Agr. Chem.] (Purnell).

II.

Progress report in Idaho Sta. Bul. 221 (1937), pp. 33, 34.

ILLINOIS

I.

The nutritive value of highly pigmented corns, 10/27/33, J. Outhouse and E. Kempster (Purnell).

The factors that influence bone calcification, 2/2/32, J. Outhouse and E. Kempster (Purnell).

Mineral requirements of human subjects and the utilization of minerals of foods, 9/1/36, J. Outhouse, G. Kinsman, and E. Kempster (Purnell).

A study of Illinois wheat flours and their behavior in baking, 1/3/27, S. Woodruff and E. Chambers (Purnell).

Characteristics of starches of wheats and of other sources, 7/8/31, S. Woodruff and M. MacMasters (Purnell).

Soybeans and soybean products as human food, 1/4/35, S. Woodruff and H. Klaas (Purnell and Bankhead-Jones).

Studies in the utilization of corn as human food, 8/23/33, S. Woodruff and M. MacMasters (Purnell).

Illinois farm home accounts, 4/7/28, R. C. Freeman (Purnell).

Consumption studies in rural families, 2/26/36, R. C. Freeman (Bankhead-Jones).

Study of the use of income of farmers, 7/9/36, [H. C. M. Case and D. E. Lindstrom, Agr. Economics] and L. Bane (Bankhead-Jones).

II.

Progress report in Illinois Sta. Rpt. 1935-1936, pp. 285-306.

The effects on corn and wheat starch gels produced by pretreating the starches with freezing or with chemical reagents, S. Woodruff and M. M. Macmasters. Illinois State Acad. Sci. Trans. 29 (1936), pp. 107-109.

INDIANA

I.

Refrigeration for the farm household and farm produce, 7/9/35, G. Redfield (Purnell and Supplemental).

A study of small electric mixers and beaters for household use, 4/8/37, G. Redfield (Purnell).

A study of the use of the oven, the waterless cooker, the water-bath, and the pressure cooker for processing fruits and vegetables in home canning, R. Jordan (State).

A study of hydrogenated lard (produced under known conditions) as a culinary fat, R. Jordan (State).

II.

Progress report in Indiana Sta. Rpt. 1936, pp. 48, 49.

A study of ovens used for domestic cooking purposes, G. M. Redfield. Indiana Sta. Bul. 416 (1936), pp. 20.

A study of efficient kitchen arrangement, G. M. Redfield. Indiana Sta. Bul. 418 (1937), pp. 29.

Selection, operation and care of electric household equipment, G. M. Redfield. Ind. Ext. Bul. 215 (1937), pp. 12.

Jellies, jams, preserves, R. Jordan. Purdue Ext. Bul. 146. Revised (1937), pp. 12.

Observations on the dark adaptation of the eye and vitamin A storage in young adults, C. Schuck and W. Miller. Abs. in Jour. Home Econ. 29 (1937), pp. 569, 570.

IOWA

I.

A study of the conditions influencing the production of uniform experimental animals in the stock colony, 10/24/31, P. M. Nelson, P. P. Swanson, W. Armstrong, and M. Greenwood (Purnell).

The nature of the dietary deficiency causing progressive retardation of growth in successive generations of rats, 8/8/36, P. P. Swanson, P. M. Nelson, and M. Gunson (Purnell and State).

The biological value of autoclaved pork muscle, 8/8/36, P. P. Swanson, P. M. Nelson, M. Gunson, and W. Armstrong (Purnell and State).

Dietary factors in the production and cure of toxemic pregnancies induced by the feeding of certain pork diets, 8/8/36, P. P. Swanson, P. M. Nelson, M. Gunson, W. Armstrong, and M. D. Edwards, with [E. Smith, Zoology, and H. D. Bergmann, Veterinary Medicine, advisers] (Purnell and State).

The lactagogue factor in liver and beef muscle, 8/8/36, P. P. Swanson, P. M. Nelson, M. Edwards, and M. Gunson (Purnell and State).

The nutritional status of college women as related to their dietary habits: anthropometric measurements, the formed elements of the blood, basal metabolism and dietary balances, 8/8/36, P. M. Nelson, P. P. Swanson, M. A. Ohlson, and V. Minnich [J. F. Edwards, S. B. Kalar; and J. G. Grant, Hygiene; E. E. Smith, Physiology; and P. C. Jeans and G. Stearns, Pediatrics, Univ. Iowa]. [Regional Project, North Central States] (Purnell and State).

IOWA

I. (cont.)

Testing soybean selections suitable for use as green vegetables for human consumption [C. P. Willsie and C. B. Juday, Agronomy] P. M. Nelson and B. Lowe, with [E. S. Haber, Vegetable Crops, and M. G. Weiss, Farm Crops] (Purnell and State).

The protection from degradation which certain finishes provide wool, R. Edgar and M. Jones (State).

Comparative degradation of fabrics by commercial, institutional and home laundering methods, L. J. Peet and R. Edgar (no financial support).

The comparative degradation of cotton cellulose and regenerated cellulose rayon by five oxidizing bleaches, 8/5/37, R. Edgar and M. Lichte (Purnell and State).

Analysis of price information useful to consumers in purchasing, 8/5/37, M. G. Reid, I. W. Arthur, and G. Tintner (Purnell and State).

II.

Progress report in Iowa Sta. Rpt. 1936, pp. 77-80, 114, 115, 148-158.

Cooperative research among colleges, M. A. Ohlson, P. M. Nelson, and P. P. Swanson. Jour. Home Econ. 29 (1937), pp. 108-113.

Oxidative degradation of silk, R. L. Johnson, E. C. Walde, and R. Edgar. Iowa State Col. Jour. Sci. 11 (1936), pp. 5-14.

Degradation of five weighted silk fibers by steam, R. L. Johnson and R. Edgar. Iowa State Col. Jour. Sci. 11 (1936), pp. 15-20.

Formaldehyde as a protective agent for wool, F. Barr and R. Edgar. Textile Res., 7 (1937), pp. 175-179.

Starting baked products in cold versus preheated ovens, L. J. Peet and B. Lowe. Iowa Sta. Res. Bul. 213 (1937), pp. 89-124.

Care of meat in the household refrigerator, L. J. Peet. Iowa Sta. Res. Bul. 215 (1937), pp. 157-188.

KANSAS

I.

The vitamin content of foods relating to human nutrition.--2, Determination of the vitamin content of foods. Revised 11/25/35.

F. A study of the vitamin A and G content of the colostrum of the dairy cow, M. M. Kramer and B. L. Kunerth.

H. A study of the vitamin A and G content of the milk of dairy cows maintained under conditions practiced in Kansas, M. M. Kramer.

I. A study of bean sprouts as a source of vitamin C, M. M. Kramer and B. L. Kunerth (Purnell).

A study of factors affecting the service qualities of certain textile fabrics. Revised 11/20/35. (See p. 9)

KANSAS

I. (cont.)

3. The effect of heat, light and perspiration on the service qualities of weighted and unweighted silk fabrics. B.--The effect of natural and synthetic perspiration on the breaking strength, K. Hess and H. Fletcher (Purnell).

4. A study of service qualities of fabrics with regard to adequate labeling. B.--A study of certain qualities of fabrics that influence their ability to absorb moisture, K. Hess and H. Fletcher (Purnell).

The effect upon the animal body of varying the amount of vitamin in the diet.--1, The effect upon the animal body of varying the amount of vitamin C in the diet, with special reference to reproduction and the development of the embryo, 4/6/32, M. Kramer and [M. T. Harman, Zoology] (Purnell).

Studies of factors affecting the expenditures for family living among Kansas farm families, 7/12/35, M. A. Gunselman and [W. E. Grimes, Agr. Economics] (Purnell).

The nutritional status of college women as related to their dietary habits, 9/9/36, [Regional Project, North Central States] (Purnell).

1. A study of the anthropometric measurements of college women in Kansas, M. S. Pittman, B. L. Kunerth, and D. Cederquist.

2. A study of the basal metabolism of women of college age in Kansas, M. S. Pittman, B. L. Kunerth, and D. Cederquist.

3. A study of the blood picture of college women in Kansas, M. S. Pittman, B. L. Kunerth, and D. Cederquist.

4. A study of the intake and utilization of the food of a selected group of Kansas college women, M. S. Pittman and B. L. Kunerth.

5. A survey study of the dietary habits of Kansas college women, M. S. Pittman and B. L. Kunerth.

II.

Progress reports in Kansas Sta. Rpt., 1935-36, pp. 115-120.

Vitamin A activity of butters determined by various methods, M. E. Leuschen, B. L. Kunerth, and M. M. Kramer. Jour. Nutr. 14 (1937), pp. 247-259.

Vitamin A and carotene determinations on a sample of commercial butter, B. L. Kunerth and E. Leuschen. Trans. Kansas Acad. Sci. 39 (1936), pp. 191-195.

Effect of pan on temperature of baking and tenderness of angel food cake, S. J. Reed, E. V. Floyd, and M. S. Pittman. Jour. Home Econ. 29 (1937), pp. 188-192.

Certain factors which affect the palatability and cost of roast beef served in institutions, G. E. Vail and L. O'Neill. Jour. Amer. Dietet. Assoc. 13 (1937), pp. 34-39.

Endometrial hyperplasia as observed in experimental guinea pigs, O. Saffry, M. M. Kramer, and M. T. Harman. Abs. in Jour. Home Econ. 29 (1937), p. 569.

The diets of ten low-income families, A. Spoelstra and M. S. Pittman. Abs. in Jour. Home Econ. 29 (1937), pp. 570, 571.

Analysis of bleached and unbleached muslin sheetings, E. B. Nelson. Abs. in Jour. Home Econ. 29 (1937), pp. 572.

Wearing qualities of certain ready-made garments, D. E. Ekstrom. Abs. in Jour. Home Econ. 29 (1937), pp. 573.

KENTUCKY

I.

The relationship of certain constituents of egg yolks and hemoglobin regeneration in humans, 6/16/36, S. E. Erikson and R. Boyden and [W. M. Insko and J. H. Martin, Poultry Husbandry] (Purnell).

An investigation of the metabolism of obesity, (10/20/25), S. E. Erikson and R. Boyden (Purnell).

MAINE

I.

The economic utilization of electricity in food preparation in Maine rural homes, revised 10/20/36, (3) The effect of the method of heat application and accompanying oven conditions on flavor and texture of baked foods, M. M. Monroe and P. S. Greene (Purnell, Hatch, and State).

The factors affecting the cooking quality of potatoes, revised 8/29/32, (2) The relation of internal composition and physical structure of the potato to mealiness, M. D. Sweetman and P. S. Greene (Purnell, Hatch, and State).

A study of the financing by Maine families of higher education of their children in Maine institutions, 7/13/33, P. S. Greene (Purnell, Hatch, and State).

Food habits and nutritional status of children in selected communities in Maine, 7/7/34, M. D. Sweetman, M. M. Clayton, and P. S. Greene (Purnell, Hatch, and State).

The effect of an improved diet upon the health and nutritive condition of grade school children in Mars Hill, Maine, 8/13/35, M. M. Clayton, M. D. Sweetman, and P. S. Greene (Purnell, Hatch, and State).

The antiscorbutic value of home canned pickles of various types used in Maine, 7/1/35, M. M. Clayton (State).

The economical management of kerosene cook stoves to secure palatability of product in Maine farm households, M. M. Monroe (State).

The relation of the dietary habits and food resources of Maine people to their state of nutrition with respect to vitamin C, 9/21/37, M. M. Clayton, P. S. Greene, and M. D. Sweetman (Regional project, Northeastern States) (Purnell).

II.

Progress report in Maine Sta. Bul. 384 (1936), pp. 397-401, 406, 407.

Evaluation of certain factors affecting the cost of using utensils on electric heating units, M. M. Monroe. Maine Sta. Bul. 386 (1937), pp. 53-155.

Potatoes from the consumer's standpoint, M. D. Sweetman and L. M. Dakin. Maine Agr. Coll. Ext. Bul. 230 (1936), pp. 20.

MASSACHUSETTS

I.

Methods and criteria for detecting nutritional disturbances.--A study of the cause and control of nutritional cataract, 3/6/35, H. S. Mitchell and O. A. Merriam (Purnell).

A study of the nutrition of college women with respect to vitamin C requirements, 10/17/36, H. S. Mitchell and O. A. Merriam (Regional project, Northeastern States) (Purnell and State).

[Fundamental nutritive properties of apples and apple products, 3/14/34, C. R. Fellers and A. S. Levine, Hort. Manufactures] (Purnell).

Nutritive value of cranberries, 7/6/26, C. R. Fellers and A. S. Levine (Purnell).

[The iron, copper, manganese, and iodine content of vegetables used as human food, 8/5/33, W. S. Ritchie et al., Chemistry] (Purnell, Hatch, and State).

[Absorption by food plants of chemical elements of importance in human physiology and nutrition, 4/3/34, N. S. Eisenmenger, Agronomy, and W. S. Ritchie, Chemistry] (Purnell, Hatch, and State).

[Nutritive value of fishery products as human and animal food, 9/30/35, W. S. Ritchie, Chemistry, and C. R. Fellers, Hort. Manufactures] (Purnell, Hatch, and State).

A study of the source and amount of iodine effective in the prevention of the pathology produced in rabbits by feeding cholesterol, H. S. Mitchell and M. Goldfaden (State).

[Chemical changes in the cooking of vegetables, 5/27/36, M. E. Freeman, Chemistry] (Adams).

[The effect of storage and processing on the carbohydrates of some varieties of edible onions, 3/5/37, E. Bennett, Chemistry] (Adams).

[Progressive changes in frozen meat during storage, 7/8/37, W. S. Ritchie, Chemistry] (Purnell).

[Investigations related to the activation of food products in general and especially as these are related to vitamin-D milk, C. R. Fellers, W. B. Esselen, Jr., and C. F. Dunker, Hort. Manufactures]

[To investigate the use of purified corn sugar in the manufacture of food products, C. R. Fellers, Hort. Manufactures].

[The extraction of fruit juices in the manufacture of fruit jellies, 7/20/25, C. R. Fellers, A. S. Levine, and J. Novick, Hort. Manufactures] (Purnell)

[To investigate the nutritive value of frozen foods as represented by birdseye frosted foods as compared with the same fresh and canned products. C. R. Fellers, C. F. Dunker and J. Novick, Hort. Manufactures].

II.

Progress reports in Massachusetts Sta. Bul. 339 (1937), pp. 23, 24; 33-35, 67-71, 72, 73.

Bacteriological examinations of glassware or china for sanitary quality, C. R. Fellers, A. S. Levine, and E. W. Harvey. Amer. Jour. Pub. Health 26 (1936), pp. 1211-1214.

Facts, fads and frauds in nutrition, H. S. Mitchell and G. M. Cook. Mass. Expt. Sta. Bul. 342 (1937), pp. 31.

MASSACHUSETTS

II. (cont.)

Composition and nutritive studies on blueberries, O. A. Merriam and C. R. Fellers. Food Research 1 (1937), pp. 501-512.

Vacuum-pressure relationships in glass canning jars, C. R. Fellers, A. S. Levine, and W. A. MacLinn. Mass. Sta. Bul. 341 (1937), pp. 20.

Some milk superstitions, J. H. Frandsen. Jour. Home Econ. 29 (1937), pp. 242, 243.

The effect of processing on vitamins in fruits and vegetables: A review, C. R. Fellers. Mass. Sta. Bul. 338 (1936), pp. 23.

Chemical composition and fermentation studies of citron, C. R. Fellers and E. G. Smith. Jour. Agr. Res. [U.S.], 53 (1936), pp. 859-867.

Influence of protein or cystine intake on cataract-producing action of galactose, H. S. Mitchell and G. M. Cook. Soc. Expt. Biol. and Med. Proc., 36 (1937), pp. 806-808.

The relation of ingested carbohydrate to the type and amount of blood and urine sugar and to the incidence of cataract in rats, H. S. Mitchell, O. A. Merriam, and G. M. Cook. Jour. Nutr. 13 (1937), pp. 501-511.

Influence of certain fruits on fecal flora and intestinal reaction in the diets of rats, W. B. Esselen, Jr. Food Research 2 (1937), pp. 65-72.

Stability of vitamin C in sweet corn to shipping, freezing, and canning, C. F. Dunker, C. R. Fellers, and G. A. Fitzgerald. Food Research 2 (1937), pp. 41-50.

Composition and utilization of Atlantic Whiting, D. A. Bean, J. A. Clague, and C. R. Fellers. Transactions of the Amer. Fisheries Soc. for 1936-1937.

Dextrose in the manufacture of fruit and vegetable products, Carl R. Fellers, J. Miller, and T. Onsdorff. Indus. and Engin. Chem. 29 (1937), pp. 946-949.

Nutritive value of chocolate flavored milk, W. S. Mueller and W. S. Ritchie. Dairy Sci. 20 (1937), pp. 359-369.

Tomato variety and strain differences in ascorbic acid (vitamin C) content, W. A. MacLinn, C. R. Fellers, and R. E. Buck. Amer. Soc. Hort. Sci. Proc. 34 (1936), pp. 543-552. 1937.

Gas content of cranberries and possible relationship of respiratory activity of keeping quality, W. B. Esselen, Jr. and C. R. Fellers. Plant Physiol. 12 (1937), pp. 527-536.

MICHIGAN

I.

Determination of the food requirements of children.--(2) The protein requirements of the preschool child: (3) The mineral requirements of the preschool child, 11/1/23, M. Dye, J. Hawks, M. Bray, G. Everson and M. Eads (Purnell).

A study of the relationship between the nutritive content of the diet and the vitamin A requirement, 3/4/35, K. Dietrich and M. Dye (Purnell).

A study of the vitamin B₁ content of beans, 6/20/36, K. Dietrich and M. Dye (Purnell).

MICHIGAN

I. (cont.)

Bean cookery.--Methods of cooking and recipes, 5/1/36, M. Dye and R. Griswold (State).

Recipes for Michigan fruits, 7/1/36, R. Griswold and M. Dye (State).

The effect of rations made up largely of single grains upon the growth and quality of meat produced by swine, 5/1/36, [V. A. Freeman, Animal Husbandry] M. Dye and R. Griswold (State).

Quality in beef--beef type and dairy type steers, 6/1/36, [G. A. Branaman, Animal Husbandry] R. Griswold and M. Dye (State).

A study of the variation (1) in vitamin C in foods through storage, cooking, and from season to season and (2) the effect of various steps in canning of strained food on the vitamin A and B content, 10/1/30, F. Hanning (Fremont Fellowship, Gerber Products Co.).

Management as applied to the home I. An analysis of the content of home management.

A. Study of methods of research in this field.

B. Application of methods to large samples or series of smaller selected samples, 11/10/36, I. H. Gross and A. Aiken (Purnell).

II.

Progress report in Michigan Sta. Bien. Rpt. 1935-36, pp. 38, 39.

Comparison of the biological and chemical methods for the determination of vitamin C in canned strained vegetables and a study of its variation from year to year, F. Hanning. Jour. Nutr. 12 (1936), pp. 405-412. Abs. in Mich. Sta. Quart. Bul. 19 (1937), pp. 196.

Further studies of the content of vitamins A and B in canned strained vegetables, F. Hanning. Jour. Amer. Dietet. Assoc. 12 (1936), pp. 231-236. Abs. in Mich. Sta. Quart. Bul., 19 (1937), pp. 196.

An improved technic for metabolism studies on pre-school children with a statistical determination of its reliability, J. E. Hawks, M. Dye, and M. M. Bray. Jour. Nutr., 13 (1937), pp. 51-64.

Effect of diet on the constancy of the urinary nitrogenous constituents excreted daily by pre-school children, J. E. Hawks, M. M. Bray, and M. Dye. Jour. Nutr. 13 (1937), pp. 179-192.

MINNESOTA

I.

The relation of diet to blood regeneration. (1) The influence of vitamins on the rate of blood regeneration. (2) The distribution of nitrogenous constituents of the blood during blood regeneration, 3/1/28, J. M. Leichsenring, A. Biester, and L. Burrill (Purnell).

A study of the culinary quality of Minnesota potatoes, 11/5/34, A. M. Child (Bankhead-Jones).

MINNESOTA

I. (cont.)

A study of the quality and utilization of Minnesota varieties of (a) apples, (b) plums, and (c) grapes, 10/19/37, A. M. Child and W. Alderman (Horticulture) (Bankhead-Jones).

A study of the qualities of meat which affect its palatability, methods of cooking, and utilization, revised 10/27/36. 1. A study of juiciness, tenderness and flavor of meat, A. M. Child (Animal Husbandry) (Bankhead-Jones).

Factors affecting the selection, care, and wearing qualities of textile materials, 3/1/28, (A) A study of fiber quality and physical properties in relation to cost of staple wool materials; (B) A study of the serviceability of woven materials used for men's and women's underwear, E. L. Phelps, S. A. McKee, and M. Jewell (Purnell and Hatch).

The study of the properties and serviceability of cotton materials used for professional garments, 10/27/36, E. L. Phelps and H. Larmore (Bankhead-Jones).

The nutritional status of college women as related to their dietary habits and indicated by (A) anthropometric measurements (B) basal metabolism determinations and (C) blood studies, 1/6/37, E. Donelson, J. M. Leichsenring, A. Biester, L. Wall, and L. Norris (Regional - North Central States) (Purnell).

II.

A study of juiciness and flavor of standing and rolled beef rib roasts, A. M. Child and G. Esteros. Jour. Home Econ. 29 (1937), pp. 183-187.

A study of the effect of coagulation and internal temperature on press fluid, tenderness, and composition of beef muscle, A. M. Child and M. J. Satorius. Abs. in Jour. Home Econ. 29 (1937), p. 567.

A study of materials used for nurses' uniforms, H. B. Larmore. Abs. in Jour. Home Econ. 29 (1937), pp. 572, 573

The making of potato chips in relation to some chemical properties of potatoes, M. C. Rogers, C. F. Rogers, and A. M. Child. Amer. Potato Jour. 14 (1937), pp. 269-290.

Using Minnesota apples, A. M. Child and R. H. Brand. U. of Minn. Agr. Ext. Spec. Bul. 185 (1937), pp. 24.

MISSISSIPPI

I.

The farmer's daughter and an industrial program, 10/19/37, D. Dickins (Purnell).

The effect upon family living of moving from submarginal to productive land, 1/31/35, D. Dickins (Purnell).

Studies in nutritional anemia, revised 9/26/36.

1. Studies on vegetables. (a) Determination of the availability of the iron and copper in vegetables as related to their value in the treatment of nutritional anemia. (b) Determination of the effect of cooking on the value of vegetables in nutritional anemia and its relationship to available iron and copper, O. Sheets (Purnell).

2. Studies on sorghum and sugar cane sirups and blackstrap molasses. Determination of the availability of the iron and copper in sorghum and sugar cane sirups and blackstrap molasses as related to their value in the treatment of nutritional anemia, O. Sheets (Purnell).

MISSISSIPPI

I. (cont.)

A study of the influence of the nitrogen supply on (A) the mineral content (Fe, Ca, N, P, Ca, K, Mg) of leaf lettuce and spinach. (B) the value of leaf lettuce and spinach on the regeneration of hemoglobin, 2/5/36, O. Sheets, [L. R. Farish, Horticulture, and M. Geiger, Chemistry] Revised 7/22/37 (Purnell).

II.

Occupations of sons and daughters of Mississippi cotton farmers, D. Dickins. Mississippi Sta. Bul. 318 (1937), pp. 132.

The normal white share-cropper family with grown children, D. Dickins. Jour. Farm Econ. August (1937), pp. 814-817.

MISSOURI

I.

The effect of cooking upon the chemical composition and cost of meat-- A study of broiling methods, 8/14/34, J. A. Cline (Purnell).

Household utilization of cotton and competing household fabrics, 10/22/35, J. V. Coles (Purnell).

Family living survey in Moberly, Missouri, 8/4/36, J. V. Coles and E. McGuire (Purnell).

[A study of the levels of living of farm families in Missouri, 7/9/36. M. W. Sneed, Rural Sociology], with J. V. Coles, O. Conard, and F. Clark (Purnell).

Dietary deficiencies which result in a disease resembling rickets in the bones of young rats, 8/10/37, B. Bisbey and G. Eslick (Purnell).

The influence of the diet of the hen upon the vitamin potency of eggs, 8/10/37, (Purnell):

- A. A study of the pigments and their relation to the vitamin A potency of egg yolks produced by hens on different diets, B. Bisbey, G. Breckinridge, and E. Jacob;
- B. The relation of the carotene and xanthophyll content of the diets to the growth of young chicks, B. Bisbey, [H. L. Kempster (Poultry) and A. Weis (Chemistry)];
- C. The flavin content of egg yolks produced by hens on different diets, B. Bisbey.

II.

Progress report in Missouri Sta. Bul. 370 (1937), pp. 61-63.

Consumer demand for various qualities in selected articles of clothing and selected household textiles, as expressed by Missouri homemakers, M. Chollet. Abs. in Jour. Home Econ. 29 (1937), pp. 573, 574.

MONTANA

I.

The qualities and uses of white wheat varieties raised in Montana.--
Cake and cooky test, 7/24/35, [Agronomy] J. E. Richardson and H. L. Mayfield
(Purnell).

The effect of canning, salting and fermentation on the palatability
and vitamin content of green stringbeans, Revised 7/19/37, J. E. Richardson
and H. L. Mayfield (Purnell).

Comparative effects of soap and detergents in laundering, 7/19/37, J. E.
Richardson (Purnell).

The influence of fruit acids, fruit sugars, and pectin on the oxidation
of vitamin C (ascorbic acid), 11/1/37, J. Richardson (Adams).

II.

Some observations on vitamin-C content of oranges and lemons, J. E.
Richardson, R. Davis, and P. Sullivan. Food Res., 2 (1937), pp. 81-83.

Vitamin-C content of potatoes/^{prepared} for table use by various methods of
cooking, J. E. Richardson, R. Davis, and H. L. Mayfield. Food Res., 2 (1937),
pp. 85-95.

NEBRASKA

I.

A study of gas stove, 7/14/33, A. E. Baragar (Purnell).

A study of various types of gasoline stoves, 9/23/37, A. E. Baragar
(Purnell).

A comparative study of young people from farm, village, and city homes
in regard to certain possible relationships between character and personality
adjustment and home and family influences, 10/29/35, L. H. Stott (Purnell).

A technical study of steam pressure cookers used in Nebraska homes,
5/23/35, A. E. Baragar (Purnell).

Methods used in processing certain vegetables and meats, R. Gibbons and
E. B. Snyder (State).

A study of comparative costs of certain home and commercially prepared
foods and such foods prepared in the home with the use of different fuels, I.
White and whole wheat bread and rolls, 3/26/34, E. B. Snyder (Purnell).

A cooperative study of small electrical food mixers, 10/21/37, A. E.
Baragar (Purnell).

The nutritional status of college women as related to their dietary habits
(Regional project, North Central States) [Proposed], R. M. Leverton.

II.

A study of selected types of domestic gas stoves, A. E. Baragar.
Nebraska Sta. Research Bul. 86 (1936), pp. 74.

A study of relief activities in seven Nebraska Counties; 1927-1934, L. H.
Stott. Nebraska Sta. Research Bul. 89 (1937), p. 24.

Some factors affecting the cooking quality of the pea and Great Northern
types of dry beans, E. B. Snyder. Nebraska Sta. Research Bul. 85 (1936), pp. 31.
Abs. in Jour. Home Econ. 29 (1937), p. 567.

Selecting your gas stove, A. E. Baragar. Nebraska Sta. Circular 55 (1937),
pp. 20.

NEW JERSEY

I.

Critical studies of the method for the assay of vitamin D in milk, 7/2/35 - revised 7/6/37, W. C. Russell, M. W. Taylor, A. Zimmerli, and M. T. Duncan (Purnell and State).

II.

Report of vitamin D. The development of a method for the assay of vitamin D in milk - The duration of the assay period, W. C. Russell. Jour. Assoc. of Official Agr. Chemists 20 (1937), pp. 213.

NEW MEXICO

I.

The flavin and vitamin B6 content of New Mexico pinto beans and the effect of cooking upon the content of these factors, 5/21/31 - revised, E. M. Lantz (Purnell).

Determinations of the iron and copper content of the pinto bean and the effect of pinto beans on the regeneration of hemoglobin in nutritional anemia of the albino rat, 10/2/35, E. M. Lantz (Purnell).

NEW YORK (CORNELL)

I.

Energy metabolism of infants and small children, 10/25/33, H. Monsch, D. Clagett, and M. Hall (Purnell and State).

Financial management of farm families, 8/16/35, H. Canon and J. Kremer (Purnell and State).

Management of time by farm and city homemakers, 8/16/35, H. Canon and J. Warren (Purnell and State).

Studies on the vitamin C metabolism of human beings, 8/16/35, H. Hauck and W. B. Beckman (Purnell and State). (Regional project - Northeastern States).

The quality of New York State fruit and vegetables.--A, The culinary quality of potatoes, 2/13/36, M. C. Pfund, C. T. Personius, L. T. Dudgeon, D. Scofield, and R. Keith. [P. F. Sharp, Dairy Husbandry and O. C. Smith, Vegetable Crops] (Bankhead-Jones and State).

The nutritive value of New York State fruit and vegetables.--A, The nutritive value of potatoes, 7/17/36, H. Hauck and L. T. Dudgeon (Purnell and State).

NEW YORK (CORNELL)

I. (cont.)

A study of the making of maple cream from New York State maple sirup, 8/4/37, M. Pfund and R. Keith. (Bankhead-Jones).

A study of consumer preferences, buying practices, and demand for potatoes, 2/20/36, H. Canon and A. Hotchkiss [Agricultural Economics and Vegetable Crops] (Bankhead-Jones, Purnell, and State).

A study of quality and economy in the selection of potatoes for institutions, 3/24/36, K. W. Harris and M. Wood [Agricultural Economics and Vegetable Crops] (Bankhead-Jones, Purnell, and State).

The planning of home work centers and equipment in relation to economy and satisfaction in the use of time, energy, and money, 7/17/36, H. Canon and E. M. Cushman (Purnell and State).

A study of the performance during wear of women's and children's silk, rayon, and cotton wearing apparel fabrics, (Regional - Northeastern States) 9/4/37, B. Blackmore (Purnell).

II.

Progress report in the [New York] Cornell Sta. Rpt. 1936, pp. 87, 88.

Index numbers of the cost of goods and services bought by farm families in New York, 1920 to 1935, H. Canon and M. Rollins. [New York] Cornell Sta. Mem. 199 (1937), pp. 25.

A study of price differences in retail grocery stores in New York State, L. Doman. Cornell Agr. Exp. Sta. Bul. 665 (1937), pp. 52.

The foods of a Hindu village of North India, C. V. Wiser. Bureau of Statistical and Economic Research, United Provinces, Allahabad, India. July 1936. United Provs. [India], Bur. Statis. and Econ. Res. Bul. 2 (1937), pp. VI 121.

Losses of vitamin C during the cooking of peas, F. Fenton, D. K. Tressler, and C. G. King. Jour. Nutr. 12 (1936), pp. 285-295.

An analysis and comparison of different methods of calculating the energy value of diets, N. B. Morey. Nutr. Abs. and Rev., 6 (1936-37), pp. 1-12.

NORTH DAKOTA

I.

Factors which influence the quality of meat, 8/4/25. (1) The economy of veal carcass cuts in relation to waste in cooking and serving, and servings to one pound of raw meat. (2) The utilization of edible meat byproducts, P. Paul (Purnell).

A study of the influence of intensity and rotation grazing on the character of the range and the quality and palatability of the beef produced, 6/1/33, [J. T. Sarvis and T. H. Hopper, Animal Husbandry, E. J. Thompson and A. Severson, Chemistry] (Purnell).

A study of farm refrigeration methods, 8/28/34, [H. F. McColly, Agr. Engineering, J. R. Dice, Dairy Husbandry] (Purnell).

Utilization of fruit and vegetable varieties adapted to production in this section of the country, 12/2/33, [A. F. Yeager, Horticulture] (Purnell).

Preservation of meat by heat, 2/14/36, [C. I. Nelson, Bacteriology], and D. Berrigan (Bankhead-Jones).

NORTH DAKOTA

II.

The use of lard in cake baking, D. Berrigan. Cereal Chem. 14 (1937), pp. 525-531.

OHIO

I.

The nutritional status of college women as related to their dietary habits, revised 6/6/37, H. McKay, M. B. Patton, and C. V. Moore (Purnell and State) (Regional project, North Central States).

Influence of position isomerism in azo dyes upon their fastness to light and washing.--II, Phenyl azo-naphthylamine dyes, 7/20/35, M. E. Griffith (Purnell and State).

The absorption spectra of isomeric azo dyes, 7/20/35, M. E. Griffith (Purnell and State).

A comparative study of glass curtain fabrics, 8/5/37, (Leader to be appointed) (Purnell).

II.

Basal metabolism of older women, H. McKay and M. B. Patton. Ohio Sta. Bul. 575 (1936), pp. 16.

Culinary quality of potatoes produced in Ohio, H. McKay and M. B. Patton. Ohio Sta. Bul. 579 (1937), pp. 93, 99.

OKLAHOMA

I.

[A study of the chemical and nutritive properties of egg yolk with special emphasis upon the preparation of concentrates having pharmaceutical value, 9/12/36, R. Reder, Agricultural Chemistry] [Poultry] (Purnell).

[Causes and control of certain off-flavors in milk, 3/22/34, A. Crouch and A. H. Kuhlman, Dairying] (Adams).

[Mineral content of Oklahoma vegetables, R. Reder, Agricultural Chemistry] (State).

II.

Progress report in Oklahoma Sta. Rpt., 1935-36, pp. 164-169.

OREGON

I.

Standardization of dimensions of space units in the house, 2/26/34, M. Wilson (Purnell).

The availability of phosphorus in wheat and oatmeal, M. L. Fincke (Research Council, Oregon State College).

A study of the nutritional values of vegetables preserved by the freezing method. (1) A study of the vitamin B values of frozen peas, 7/9/37, M. L. Fincke (Bankhead-Jones) (Coop.-Washington).

The contribution of Oregon diets to vitamin C requirements. (1) Determination of the vitamin C requirements of Oregon college students, 9/23/37, M. L. Fincke (Regional - Northwestern States) (Purnell).

OREGON

II.

Standards for working-surface heights and other space units of the dwelling, E. H. Roberts, M. Wilson, and R. Thayer. Oregon Sta. Bul. 348 (1937), pp. 38. [Also Washington Sta. Bul. 345 (1937)].

Calcium in meat cooked with acid, J. C. Williams. Food Res., 1 (1937), pp. 537-549.

Experimental results on the preservation of fruits and vegetables by freezing: A progress report, E. H. Wiegand. Oregon Sta. Circ. 122 (1937), pp. 14.

PENNSYLVANIA

I.

Dietary habits and nutritional status of typical Pennsylvania residents, 11/1/35, P. B. Mack and J. Smith (R. A. Dutcher, Advisory) (Purnell).

Performance during wear of women's and children's silk, wool, rayon, and cotton wearing apparel fabrics, 10/15/36, A. Searle, E. Chapman, and P. B. Mack (Regional project-Northeastern States) (Purnell).

Development of a method for measuring degree of skeletal mineralization in children and adults, P. B. Mack and graduate students (Departmental).

A study in the nutritional status of Pennsylvania school children; P. B. Mack, P. K. Sprague, S. Zayaz, A. O'Brien, C. Logan, M. Presper, and E. K. Kerns (Departmental).

A study of the nutritional status of children in a federal emergency nursery school as compared with a control group of children, Tsuen Woon Ng and staff members (Departmental).

Effect of nursery school experience on social maturity and other factors, H. H. Little, M. McDowell, and R. G. Bernreuter [Psychology Department].

A school project on the color fastness and shrinkage of cotton fabrics on the retail market, H. Krafchysian, J. Amberson, and P. B. Mack (Departmental).

[A study of methods of improving the washing procedure in Pennsylvania commercial laundries, J. F. Oesterling, A. Cahalan, and P. B. Mack, School of Chemistry and Physics].

[A study of methods of improving the washing procedure in Pennsylvania State-maintained institutional laundries, J. Krawiec and P. B. Mack, School of Chemistry and Physics].

[The effect of various solvents and detergents in the commercial dry-cleaning process, C.R. Phillips and P. B. Mack, School of Chemistry and Physics].

[A study of the durability of mohair pile upholstery fabrics, H. Tharp and P. B. Mack, School of Chemistry and Physics].

[A study on the theories of dyeing textile fibers, E. C. Hoffman and graduate students, School of Chemistry and Physics].

PENNSYLVANIA

II.

Personal problems of high school girls, I. M. Cornog and E. P. Chace, Home Econ. Ser., Pub. No. 1, Penn. State Col. Bul., 31 (June 27, 1937), No. 28.

A method for measuring the efficiencies of laundry procedures, P. B. Mack, H. N. Wenger, R. J. Mosteller, and M. T. Baer, Home Econ. Ser., Pub. No. 2, Penn. State Col. Bul., 31 (July 12, 1937), No. 30.

A study of the relationship between discipline and personality traits in little children, M. E. Ayer and R. G. Bernreuter. Jour. Gen. Psychol., 50 (1937), pp. 165-170.

RHODE ISLAND

I.

The methods by which the housekeeping activities are carried on in the home of the married woman who works full time outside the home, 5/16/34, B. M. Kuschke (Purnell).

Part-time farming in Rhode Island, 1/15/35, [W. R. Gordon, Rural Sociology] and B. M. Kuschke (Purnell).

A study of kinds and maintenance of floor finishes best suited for household use, 8/31/35, B. M. Kuschke (Purnell).

The nutritional status of college women as related to their dietary habits, with particular reference to vitamin C, 10/29/36, E. Batchelder (Regional project-Northeastern States) (Purnell).

A study of performance during wear of women's and children's silk, rayon, and cotton wearing apparel fabrics, 1/21/37, B. M. Kuschke and E. Batchelder (Regional project-Northeastern States) (Purnell).

II.

Progress report in Rhode Island Sta. Rpt. 1936, Contribution 503, pp. 32-34.

The rural home maker in Southern Rhode Island as a paid worker, M. Whittemore and B. M. Kuschke. Rhode Island Sta. Bul. 259 (1936), pp. 32.

SOUTH CAROLINA

I.

The food consumption of farm families in the Lower Coastal Plain of South Carolina, 7/9/35, A. M. Moser (Purnell).

The use of textile fabrics for household needs by farm families in eight counties of South Carolina, 10/1/35, M. E. Frayser (State).

The production and consumption of dairy products by South Carolina farm families, 3/1/36, M. E. Frayser (State).

II.

Progress report in South Carolina Sta. Rpt. 1936, pp. 16-18.

SOUTH DAKOTA

I.

The influence of various kinds of wool on some of the physical properties of flannel, 1/30/34, B. Bailey and E. Pierson (Purnell).

The vitamin B₁ and B₂ (G) content of South Dakota cross-bred lamb (muscle, liver, pancreas, thymus) and vitamin C content of lamb liver, 9/21/33, M. Kellogg, E. Pierson, and J. B. Taylor (Purnell).

II.

Progress report in South Dakota Sta. Rpt. 1936, pp. 28, 29.

Vitamin B in lamb tissues and organs, M. Kellogg. South Dakota Sta. Bul. 306 (1936), pp. 43.

A comparison of five kinds of wool, D. Saville. Abs. in Jour. Home Econ., 29 (1937), pp. 572.

TENNESSEE

I.

An investigation of raw and cooked sweetpotatoes and other yellow vegetables for changes in vitamin A values and other chemical changes, 2/25/36, F. L. MacLeod (Purnell).

[Sweetpotato vinegar--an investigation of methods with special regard to home production, 10/25/29, G. A. Shuey, Chemistry] (Purnell).

[Sweetpotato sirup--an investigation of possibilities of home production, 7/30/30, G. A. Shuey, Chemistry] (Purnell).

[Factors affecting the quality of strawberry juice, 7/25/34, G. A. Shuey, Chemistry] (Purnell).

A study of the availability of phosphorus (I) In feeds and of the adequacy of the phosphorus supplied in this way (II) In different inorganic phosphates produced by T.V.A. and University of Tennessee, F. L. MacLeod (Departmental and T.V.A.)

Home production of food supplies, 1/13/36, [C. A. Mooers, Agronomy; B. D. Drain, Horticulture; M. Jacob, Animal Husbandry] and F. L. MacLeod (Bankhead-Jones).

Investigation of buying practices of farm families, limited to a few articles, E. L. Speer (Departmental and Agricultural Extension Service).

Summary of expenditures of farm families as recorded in home account books, E. L. Speer (Departmental and Agricultural Extension Service).

II.

Progress report in Tennessee Sta. Rpt. 1936, pp. 43, 44.

TEXAS

I.

The effect of oven temperature on the tenderness of meat, 2/8/34,
S. Cover (Purnell).

Physical characteristics of cotton and their interrelationships, 6/15/34,
M. A. Grimes (Purnell).

The effect of tea upon the energy metabolism of children, 8/21/34,
J. Whitacre (Purnell).

A study of various methods of storing cured bacon in different oils,
11/5/34, [F. Hale, Swine Husbandry], and S. Cover (State).

Factors affecting the storage of cucumbers, 5/15/35, [R. Hawthorn, Horti-
culture], J. Whitacre, and [S. H. Yarnell; Horticulture] (State).

Processing of canned meat, 6/12/35, S. Cover, and [H. Schmidt, Veterinary
Science] (Purnell).

Beef cattle husbandry investigations relating to the fattening of steers
at different levels of feeding, 1/7/36, [J. M. Jones, Range Animal Husbandry],
and S. Cover (Bureau Animal Industry, F. E. Keating, Bureau Plant Industry,
U.S.D.A.; and Revolving Sales Fund, Range Animal Husbandry, Tex. Agr. Expt. Sta.

Effect of degree of fatness on tenderness and flavor in lamb, 4/9/37,
S. Cover, [A. K. Mackey and C. E. Murphey, Dept. of Animal Husbandry] (Bankhead-
Jones).

Study of body measurements for sizing children's garments and patterns,
8/23/37, J. Whitacre and [R. O'Brien, Bureau of Home Economics, U.S.D.A.]
(allotment to Bureau of Home Economics, under Emergency Relief Act of 1937
Texas W.P.A. and N.Y.A. funds)

II.

Progress report in Texas Sta. Rpt. 1935, pp. 50, 117, 124-129.

The effect of exposure in the field on grade, strength, and color of raw
cotton, M. A. Grimes. Texas Sta. Bul. 538 (1936), pp. 35.

The effect of temperature and time of cooking on the tenderness of roasts,
S. Cover. Texas Sta. Bul. 542 (1937), pp. 61.

Comparison of three methods for determining the breaking strength of
cotton fibres, M. A. Grimes. Textile Res. (1937), pp. 145-148.

Cotton-fiber strength by modified flat-bundle test, M. A. Grimes. Textile
World (1937), pp. 92.

Some body measurements of Texas school children, J. Whitacre. Assoc.
South. Agr. Workers Proc. 37-38 (1936-37), pp. 254, 255.

Methods for determining the physical characteristics of cotton fibers,
M. A. Grimes. Abs. in Jour. Home Econ. 29 (1937), p. 572.

Weight of clothing worn by San Antonio (Texas) school children, J. Whit-
acre. Abs. in Jour. Home Econ. 29 (1937), p. 573.

The effect of temperature and time of cooking on the tenderness of roasts,
S. Cover. Abs. in Jour. Home Econ. 29 (1937), p. 567.

UTAH

I.

The vitamin C value of tomatoes at various intervals during the tomato season, 8/19/36, A. P. Brown (Purnell).

Nutritional status indices for rural and urban Utah school children, 8/19/36, A. P. Brown (Purnell).

The capillary resistance test as an indication of vitamin C deficiency, 9/30/37, A. P. Brown (Regional project-Northwestern States) (Purnell).

II.

Progress report in Utah Sta. Bul. 276 (1936), pp. 69-71.

VERMONT

I.

A study of the adequacy of the diet of Vermont families on relief, 8/9/34, M. Muse and M. Rice (Purnell).

Studies in household buying.--II, A study of food prices in relation to the amounts and forms of purchase, 12/9/35, M. Muse and M. Tiffany (Purnell).

Studies in the relative economy of household production and purchase.--II, The relative economy of household production and purchase of a few specific canned vegetables, 8/23/35, M. Muse and E. Holmes (Purnell).

A study of the comparative cooking properties of eggs of different degrees of freshness, 8/23/35, M. Muse (Purnell).

A study of consumer purchases, 4/25/36, M. Muse, M. Tiffany, and M. Openshaw (Purnell).

II.

Progress report in Vermont Sta. Bul. 425 (1937), pp. 31-32.

A study of quality demands in household buying of food, M. I. Liston, Vermont Sta. Bul. 415 (1937); pp. 39.

VIRGINIA

I.

[Home laundering investigations, 7/22/30. Evaluation of factors in washing. Electric iron tests. Economy of soft water. Effect of laundering on fabric of cloth. Values and costs of soaps, P. B. Potter and F. H. Bass, Agricultural Engineering] (Purnell).

[A study of heat in cooking, 6/28/34. Reliability of oven regulators. Baking tests in cheap ovens, P. B. Potter and F. H. Bass, Agricultural Engineering] (Purnell).

[Development of low-cost electric cooking equipment, 6/28/34. Design of electric hot plates. Electrifying old kerosene stoves. Possibilities of electrifying cheap kerosene ovens. Tests of cheap electric hot plates on the market, P. B. Potter, S. M. Beane, and F. H. Bass, Agricultural Engineering] (Purnell).

The vitamin C content of apples produced in Virginia, 10/18/37, G. T. Stevenson (Purnell).

WASHINGTON

I.

The vitamin C content of Washington fruit, 9/15/32. (a) The influence of time of harvesting on the vitamin C content of Winter Banana apples. (b) Varietal differences in vitamin C content of Winter Banana, Stayman, Winesap, and White Winter Pearmain apples; E. N. Todhunter (Purnell).

A study of factors influencing the cooking quality of peas preserved by the frozen pack process, 5/27/36, M. Boggs (Purnell).

Vitamin values of fruits and vegetables preserved by the frozen pack process and factors influencing vitamin content. (a) Vitamin C content of frozen red raspberries. (b) Vitamin C content of frozen pack green peas. (c) Vitamin A content of frozen pack green peas, 7/12/37, E. N. Todhunter (Purnell) (Coop. Oregon).

Vitamins A and C requirement of individuals of different ages, 7/9/37, E. N. Todhunter (Regional project-Northwestern States) (Purnell).

II.

Progress reports in Washington Sta. Bul. 342 (1936), pp. 40-42.

Factors affecting the vitamin C content of apples, E. L. Batchelder and E. L. Overholser. Jour. Agr. Res. [U. S.], 53 (1936), pp. 547-551.

A comparison of heated casein with extracted casein in the basal diet for the determination of vitamin A, E. N. Todhunter. Jour. Nutr., 13 (1937), pp. 469-476.

Some factors influencing ascorbic acid (vitamin C) content of apples, E. N. Todhunter. Food Res., 1 (1936), pp. 435-442.

Home canning costs, V. E. Sater. Washington Sta. Bul. 337 (1936), pp. 27.

Vacuum cleaning, E. H. Roberts. Washington Sta. Bul. 336 (1936), pp. 24.

Standards for working-surface heights and other space units of the dwelling, M. Wilson, E. H. Roberts, and R. Thayer. Washington Sta. Bul. 345 (1937), pp. 38. (Also Oregon Sta. Bul. 348 (1937)).

The relationship of the albumen index of eggs to their appearance when fried or poached, M. Shelly and M. Boggs. U. S. Egg and Poultry Mag., 43 (1937), pp. 478, 479

Some present day problems in nutrition, E. N. Todhunter. Jour. Amer. Dietet. Assoc., 13 (1937), pp. 235-244.

WEST VIRGINIA

I.

[Histology of bone growth in vitamin-deficient animals, 4/1/32, H. C. Cameron, Biology] (Purnell).

[The relation of vitamin A intake to common colds, 8/15/33, H. C. Cameron, Biology] (Purnell).

[The nature and effect of substances which induce or stimulate growth and sexuality in fungi, 4/2/36, L. H. Leonian, V. G. Lilly, H. C. Cameron, and H. J. Weekley, Biology] (Bankhead-Jones).

WEST VIRGINIA

II.

Progress report in West Virginia Sta. Bul. 278 (1936), pp. 27, 28.

WISCONSIN

I.

The metabolism of proteins, particularly as influenced by pregnancy and lactation, 11/27/29. (1) The nature of the injurious quality of raw egg whites and means of preventing or curing the injury: The protection afforded by feeding and by injecting a concentrate of the potent factor in different species of animals. (2) Nutritive properties of heated soybeans, H. T. Parsons, L. Arent, and D. Johnson (Purnell and State).

A study of family management of clothing expenditures in village and rural families in the central Wisconsin land purchase area, M. L. Cowles (Sub-project to A comparative study of city, village, and farm standards of living, 11/5/35, [G. Hill, J. H. Kolb, Rural Sociology] and M. Cowles (Purnell).

The vitamin C content of certain foods: The vitamin C content of tomato juice canned by different household methods, H. T. Parsons and D. Hussemann (State).

Sauerkraut: A study of vitamin C in sauerkraut and its juices, H. T. Parsons (State).

II.

Progress report in Wisconsin Sta. Bul. 433 (1937), pp. 130, 131, 133-144, 146, 147.

Food consumption of Wisconsin relief families, M. L. Cowles. Wisconsin Sta. Stencil Bul. 1937, Feb., pp. 27. Abs. in Wisconsin Sta. Bul. 438 (1937), pp. 15-17.

A comparison of the antitryptic activity of egg white with its capacity to produce a characteristic nutritional disorder, H. T. Parsons. Jour. Biol. Chem., 116 (1936), pp. 685-600.

The lack of correlation between hypersensitivity to egg white and symptoms of injury, L. Almon and H. T. Parsons. Jour. Allergy, 8 (1937), pp. 547-559.

Some quantitative studies on refection in the rat. E. Kelly and H. T. Parsons. Jour. Nutr., 13 (1937), pp. 453-467.

A comparison in five types of animals of the effects of dietary egg white and of a specific factor given orally or parenterally, J. G. Lease, H. T. Parsons, and E. Kelly. Biochem. Jour., 31 (1937), pp. 433-437.

The interrelationships between dietary egg white and the requirement for a protective factor in the cure of the nutritive disorder due to egg white, H. T. Parsons, J. G. Lease, and E. Kelly. Biochem. Jour., 31 (1937), pp. 424-432.

How can we get our vitamins, M. S. Reynolds. Wisconsin Agr. Col. Ext. Spec. Circ. (unnumbered) (1936).

WYOMING

I.

Influence of environment upon culinary qualities of Wyoming potatoes, 5/16/34, E. J. Thiessen (Purnell, Hatch, and State).

A study of high altitude cooking processes.--Deep fat frying, 5/16/34, E. J. Thiessen and E. J. McKittrick (Purnell and State).

Bread making with Wyoming hard wheat flour, using the long process, 5/18/35, E. J. Thiessen (Purnell and State).

Bread making with whole wheat flour, using the long process, 6/19/36, E. J. Thiessen and E. J. McKittrick (Purnell).

Factors affecting the quality of home canned string beans at high altitudes, 6/11/37, E. J. McKittrick and E. J. Thiessen (Purnell).

Basal metabolism of Wyoming University men, 4/28/37, E. J. McKittrick (Purnell).

II.

Progress report in Wyoming Sta. Rpt. 1936, pp. 13, 14.

Deep-fat frying studies at high altitudes, E. J. Thiessen. Abs. in Jour. Home Econ., 29 (1937), pp. 567, 568.