

of the total gross weight supplied by the various food groups averaged as follows: meat 9; cereals, etc., 55; vegetables 6; fruit 2; fats 3; eggs 1; milk 18; cheese 0; various 6. Family coefficients according to different scales are compared, and that adopted takes the woman as unit and allows her 2,600 calories net, the unemployed man being allowed 2,400, or 0.90, and children scaled down according to age to 0.25 for a child under 1 year. The authors reckon that the League of Nations scale of calorie requirement is slightly below that of the Belgian people, as shown by Slosse's investigation into 1,065 working men in 1910.

The net calories of the nineteen families varied from -33 to +30 per cent. on the Bigwood-Roost scale, five families being more than 10 per cent. below and therefore certainly receiving insufficient food. Protein averaged 81.5 grams per unit, with a range of 55 grams to 105 grams, of which the animal protein averaged 40 per cent. (range 27 to 52 per cent.). For each gram of protein the average intake of fat was 1.1 grams and of carbohydrate 4.6 grams. The minerals per unit were: Phosphorus, 1.44 grams; calcium, 0.74 gram; iron, 0.015 gram; calcium-phosphorus ratio, 1:1.95; calcium-protein ratio, 1:118. Of the vitamins the B complex was probably sufficient, A or D approximately half of standard requirements, C rather more than half, after allowing for loss in cooking. It must be borne in mind that the number of families studied is too small to allow of general conclusions being drawn. This study rather suffers from lack of sequence in arrangement and of clarity in the graphs. There are nearly a hundred tables, many of which need not have been included, while the addition of more tables summarizing the figures would be of great advantage.

PROPOSED STATE FORESTS IN MASSACHUSETTS

A TENTATIVE plan has been prepared by Commissioner Samuel A. York, of the Massachusetts State Department of Conservation, for an orderly establishment of state forests and parks, making use of idle land which at present is of little if any value to either the owners or the communities. Mr. York, according to the *Boston Evening Transcript*, explained to representatives of the Governor's Committee on the Needs and Uses of Open Spaces that the plan shows in a general way where the land is available for purchase by the state, at a cost of about \$5 per acre, which is all the state can pay under the present law, and if the plan is carried out there will be public reservations for recreational purposes within fifteen miles of every large center of population. Charles Sumner Bird, Jr.,

chairman of the committee, presided over the conference.

The program would be to buy 30,000 acres a year for ten years, and to acquire for the public six ocean beaches within five years. Salisbury Beach has already been acquired, and is now under the management of the conservation department.

Commissioner York gave six specific reasons for the plan. They are to reforest the waste land in the state; to provide healthful outdoor recreation for the public; to provide worth-while work that is non-competitive with private industry; to bring increased revenue from tourists; to stabilize rural employment and to preserve and increase the annual \$200,000,000 recreation industry of Massachusetts.

Each of the areas is to be at least 5,000 acres in extent and is to be developed for recreation, wild life and forestry. The land needed can be bought for \$5 an acre, and for a time at least the development will be made by the use of relief funds. Relief funds can be used that way to better advantage than if passed out as a dole. If the plan were followed, creating about twenty-six areas in the state, the total acreage would be in the vicinity of 740,000 acres inclusive of what the state already owns, as in many instances the new purchases would be to enlarge present state forests.

As to the cost of the project Mr. York explained that much of it would be self-supporting, because the policy will be followed of charging for the special services given. The public will have free access to parks, forests and water fronts, but there will be cabins, fireplaces supplied with wood and other facilities for which it will be deemed proper to charge the users a fee. And after some years the forest growths will have developed to the point that lumber may be cut and sold.

COMMITTEE ON UNEMPLOYMENT AND RELIEF FOR CHEMISTS AND CHEMICAL ENGINEERS

THE Committee on Unemployment and Relief for Chemists and Chemical Engineers, of which A. Cressy Morrison is chairman of the finance committee, has sent out the following appeal:

Your committee has periodically brought to your attention its efforts to alleviate distress in the profession.

During the last three years, more than 1,400 qualified chemists and chemical engineers approached the committee for help. More than 600 were placed on permanent or temporary jobs. Financial assistance was secured for 167 families in desperate need.

Nearly 1,000 chemists and chemical engineers have, to date, contributed a total sum of about \$35,000—or an average of \$1.00 per month per contributor. Our present