

### Invalids and 'Fortified' Flour

THE Medical Research Council has issued a statement dealing with a suggestion that invalids may be harmfully affected by the consumption of bread 'fortified' with calcium. The need for this supplement is brought about in two main ways: first, the war-time diet in Great Britain tends to be deficient in available calcium, especially since restrictions have been imposed upon the sale of milk and eggs; secondly, the high content of cereal foods in the diet increases the amount of calcium it is necessary to ingest, partly because most cereals are deficient in calcium but also because the phytic acid in cereals often prevents the body from making use of the calcium they contain. The Ministry of Food has asked the Food Rationing (Special Diets) Advisory Committee whether the addition of small supplements of calcium salts to flour would be in any way deleterious to invalids. In reply, the Food Rationing (Special Diets) Advisory Committee has expressed the opinion that "there is neither medical nor scientific evidence that the consumption of bread made from flour fortified by the addition of appropriate quantities of calcium salts is harmful to patients suffering from any type of disease". This opinion was based on the following considerations.

It has been proposed by the Accessory Food Factors Committee of the Lister Institute and of the Medical Research Council that 14 oz. of calcium carbonate be added to each 280 lb. of 85 per cent extracted flour and 7 oz. of calcium carbonate to each 280 lb. of white flour. Expressing these quantities in other terms, it can be said that 1 lb. of the 'fortified' 85 per cent extracted flour and 2 lb. of the 'fortified' white flour contain slightly less calcium than 1 pint of fresh milk. There can therefore be no objection to the use of this fortified flour on the grounds that it will result in the consumption by invalids of harmful amounts of calcium. It has been suggested, however, that it might have a deleterious effect upon certain invalids because the calcium added to it is in a form—calcium carbonate—different from that which exists naturally in food. This criticism appears to be ill-founded. There is direct evidence obtained on human beings that the calcium of calcium carbonate is as available to the body as that of calcium phosphate. In an easily assimilable food, such as milk, calcium is in the form of a combination with a phosphoric acid, a common normal component of animal tissues; in calcium carbonate, calcium is also present as the salt of an acid of widespread occurrence in living tissues. In both cases, the calcium is split off from the acid during the process of digestion, and is absorbed into the body in the same form in each case.

### Effect of Cooking on Vitamins

VITAMINS are lost or destroyed in the preparation and cooking of greenstuffs by many of the methods now in common use. Some generalizations which summarize our knowledge of the behaviour in greenstuffs of the vitamins most likely to be affected in

the course of preparing green vegetables for the table have been issued by the Accessory Food Factors Committee of the Medical Research Council (London School of Hygiene and Tropical Medicine, Keppel Street, London, W.C.1). Some simple rules based on these generalizations are given and cooking methods for greenstuff are recommended. Fat-soluble vitamin A is unlikely to suffer damage; water-soluble vitamins B and C are the most likely to be lost in preparation and cooking for various reasons stated. Twelve practical rules for the conservation of vitamins in the preparation and cooking of green vegetables are also given, together with methods recommended which result in the least loss of vitamin C.

### War Food Production Advisory Bulletins

THE Welsh Plant Breeding Station, Aberystwyth, has issued two further War Food Production Advisory Bulletins, No. 2, "Ley Farming" by Sir George Stapledon, and No. 3, "Herbage Seed Production" by G. Evans (price 1s. each). These publications are complementary one to the other, the first being an extension of the first bulletin of the series, while the second shows the farmer how he can raise the necessary seeds himself. After a general description of the nature of ley farming and how it differs from the permanent grass or the grass-arable systems, six methods of dealing with permanent grass are suggested which show how the change over to ley-farming can be effected from all grades of land. Care is taken to indicate where manures, particularly phosphates, can be most profitably applied. As regards seed production, the directions are based on the author's experiences in inspecting farms and conducting experiments in various parts of Great Britain, and there seems no reason why more farmers should not successfully raise their own seed than have done so in the past. A full knowledge of the recent history of the fields and adequate provision for their isolation are two essentials for the production of pure strains; climate and soil are also important, the former especially in the case of the clovers, while grasses make larger demands on the soil. Practical recommendations are given as regards sowing, manuring, times of harvesting, threshing, cleaning and storing, together with the yields likely to be obtained. The bulletin concludes with a list of the herbage strains bred by the station at Aberystwyth and a description of their special characteristics.

### Town and Country Planning

THE forty-second annual report of the Town and Country Planning Association refers to a memorandum on "Town Planning in Relation to the Present Emergency and After-War Reconstruction" submitted to the Prime Minister last autumn, as well as to opportunities which Sir Montague Barlow, Prof. P. Abercrombie, Dr. W. A. Robson and other members have had of putting before Lord Reith and Mr. Arthur Greenwood the policy of national planning, decentralization, re-development and construction of new towns for which the Association stands. The