

An interesting remark of Dr. Ojemann is that knowledge "grows by research and only by research." If he means here "experiment," then nearly everything in logic and mathematics will be excluded. So, too, will be the whole thinking, theoretical, hypothetical side of experimental science. If, on the other hand, Dr. Ojemann's meaning is that research and knowledge are synonymous, then many who never performed an experiment or did any other kind of scientific work must be considered research men, some of them very high in the scale.

This ambiguity of the term "research" may partly excuse the poor showing of those who submitted to the questioning which Dr. Ojemann describes. The uncertain or unexamined, status of some of the "basic concepts" to which he refers may be a further excuse. The complete absence of anything which could be considered philosophy of science will excuse still more (in the pupils, not the educators). Whether any sins are left for which the pupils are the ones responsible, or for which the scientists and educators themselves are excusable, is a question.

PETER A. CARMICHAEL

Louisiana State University, Baton Rouge

On Methods of Food Appraisal

In a series of reports published by the Naval Medical Research Institute, Bethesda, Maryland, Cdr. C. M. McCay and associates have described the nutritive value of food consumed at several naval shore stations and at one Army camp. In each of these reports a comparison has been made between the analytical value of the diet consumed and the calculated value of the diet issued. While such comparisons could hardly be expected to show close agreement, they nevertheless serve the valuable purpose of emphasizing the inadequacy of ordinary Tables of Food Composition when used for purposes of appraising cooked, ready-to-serve food. This point is not particularly emphasized in Cdr. McCay's reports, however, and as a result, an occasional question has arisen concerning what might appear to be an unfavorable reflection upon the principle of appraising food "as issued."

The original purpose of appraising Army food as issued was to provide a check on the adequacy of menu planning in relation to levels of nutrients recommended for the promotion of nutritional health. This method was later extended to include the appraisal of uncooked food used in the kitchen. Finally, an average deduction was usually made in recognition of loss of food during preparation for cooking (*i.e.* inedible garbage), and also of the losses of fat (and therefore calories) as well as vitamins during the cooking process itself. Because of the wide variability of both preparation and cooking losses, the usual objective attained was the appraisal of the approximate nutritive value likely to be found at three levels of messing operations, *i.e.* good, fair, and poor.

It is quite obvious that such appraisals were aimed primarily at checking the adequacy of food planning, rather than the exact determination of the nutrients to be found in the food finally consumed. Therein lie the

chief differences between the two methods of appraisal used for comparative purposes by Cdr. McCay. As mentioned above, the discrepancies in results point to a possible need for nutritive values of *cooked foods*—but at that point one is immediately faced with some difficult questions, chiefly concerning the degree of applicability of such values. In other words, who could assure duplication of the messing operations that were present when the original nutritive values of cooked foods were obtained? Kitchen operations vary not only from mess to mess but also from day to day within the same mess. Variability in recipes and in final moisture content would present innumerable difficulties. In addition, no one familiar with nutritional surveys would deny the attempts of mess personnel to do better during a survey, and the customary relaxation back to "normal" (poor) cooking practices upon the departure of the "inspectors" from the mess under survey. There are also other non-reproducible factors, particularly related to the variability of the initial nutrient content found in raw as well as canned foods.

It is apparent to the undersigned that in spite of inherent shortcomings, both methods can be used to advantage through the simple process of consolidation. Unannounced spot surveys carried out by the actual analysis of cooked food can give a continuous measure of adequacy of food actually consumed, and can also indicate where emphasis is required in courses of instruction given in service schools training mess personnel. In addition, the initial planning of the food to be issued should be checked routinely by preappraisal of the nutrients likely to be found in the uncooked (A.P.) food listed on the menu. Because of the multiplicity of factors that will affect the terminal nutritive value of such food when cooked, the desirability of spending too much time on preappraisal is doubtful. For this reason there has been developed and described in the literature a short method of evaluation of diets based on the use of nutritive values derived for 15 food groups. It has been shown that when this method is properly adapted, the appraisal of A.P. food which is obtained by its use is reasonably close to that obtained using the "long" method involving individual values for individual foods. It is regrettable that there can be no magic formula for conversion to the values found when the food has been stored, prepared for cooking, cooked, and then finally served, regardless of which method is used, either "short" or "long."

GEORGE H. BERRYMAN

*Medical Nutrition Laboratory
1849 West Pershing Road, Chicago*

Growth of Ragweed for Its Medicinal Virtues in the Dominican Republic

In the United States, in Argentina, and perhaps in other countries, ragweed, because of its irritating pollen, is very much condemned as a most troublesome weed.

The junior author of this note, who has been engaged for several years in rubber investigations in the Dominican Republic, wishes to report that ragweed in this