

beans. Outside the United States, there is also a great deal of interest in fish flour as a potential high protein food additive.

As a result of research and technological advances beverages for child feeding, nutritionally the equivalent of cow's milk, now can be made from cottonseed flour, particularly from soybean flour, and a completely adequate protein supply can be obtained solely from vegetable sources with the addition of essential amino acids.

Soybeans as a protein source outrank in volume all the other oil seeds. Its human food products have ready acceptability in the Far East and elsewhere. Converted into flour, it is now available as a high-protein additive to standard foods consisting largely of wheat, or corn, or rice, or other starchy foods deficient in protein. High-protein soybean products have for years been available in the United States as food additives, or as soy milk prescribed for infants or persons allergic to cow's milk, and more recently, as weight-restraining beverages. Soybeans now are the fourth largest U.S. cash crop and likely to be in abundant supply. As a result, processors are actively engaged in bringing the new uses of soybeans to the attention of many of the less-developed countries. In combination with cereals and other widely used starchy foods and with nonfat dry skim milk, these products can materially reduce the cost of protein per person receiving food aid. For the same protein efficiency, 100 pounds of wheat flour can be replaced by 40 pounds of wheat flour and 5 pounds of soy flour with a reduction in protein cost of over 50 percent.

The facts highlighted in this report—especially the recent progress in combining different products to produce low-cost, high-protein foods; the emergence of one of our crops as a major source of low-cost protein for humans; and the possibility of increasing our foreign feeding activities without necessarily increasing costs—all suggest that we are now in a better position than ever before to plan foreign feeding operations on a stepped-up, stable, continuing basis. The several agencies with responsibilities in the food for peace program should become more aware of these current developments, should appraise their significance in terms of cost and nutritional importance and, depending on their common findings, should make them part of expanded feeding programs under Public Law 480 in line with our officially declared intentions.

Much of what has been recently developed in food technology, in new foods, and in nutritional experiments is as yet not generally known at the top levels of policy and administrative responsibility. Partly, this is because the developments are new, and partly because there has been no provision in the executive branch for centralizing this information for the foreign feeding operations. Furthermore, to make these programs more effective, specific year-to-year increased objectives as well as long-range objectives are lacking. It is, therefore, recommended that—

- (1) The Food for Peace Program should have the responsible agencies draw up a balance sheet of food needs for the less developed countries, and match them with the current and potential supplies of animal and vegetable proteins, pulses, cereals, and vegetable oils, with special attention to the new sources of low-cost vegetable proteins.

- (2) It should have the agencies prepare a long-range (5- or 10-year) program of feeding operations under Public Law 480