cal complications, has been providing similar assistance to Ceylon since 1956. The expansion of Sweden's role in this field is viewed with satisfaction by American aid officials who sympathize with the Swedish-Pakistani objective but find that domestic sensitivities require this government to tread carefully on the subject.

The agreement calls for Sweden to establish model clinics in Karachi, Hyderabad, and Chittagong. Each will be staffed by a Swedish physician and a nurse. In addition, Sweden will provide a mobile clinic and five buses equipped with training aids for family planning education.

A Swedish spokesman said that emphasis will be placed on training Pakistani nurses and nursing students to disseminate information on birth-control techniques. The assistance to be provided under the agreement, it should be noted, is miniscule compared with Pakistan's overwhelming population problem; however, the Swedes and Pakistanis view the program as a pilot effort in the virtually chartless area of teaching family planning to an impoverished and largely illiterate population.

The agreement is reported to have been initiated at the request of the Pakistani government, which reflects a realistic Pakistani assessment of what is and what is not to be had from its principal source of assistance, the United States. State Department officials say that no government has ever asked this government for birth control assistance, although leaders of a number of the lesser-developed nations, notably India and Pakistan, have publicly stated in this country that population growth is undermining their economic development. Their appeals for assistance have been directed to American foundations and universities, which have responded with the blessings-but not the direct participation—of the U.S. government.—D.S.G.

## Fish Flour: FDA Says Consumers Would Not Like It, Therefore They May Not Have It

The Food and Drug Administration last week refused to certify whole fish flour for sale in this country. The FDA action was the latest move in a controversy in which scientific judgment, esthetics, and politics have become well enmeshed.

Fish flour, when properly manufac-

tured, is a tasteless, fine, white powder, rich in protein and relatively inexpensive. American foreign aid officials regard it as a promising food supplement for use in nations with protein-deficient diets, especially because it is cheap and goes unnoticed in combination with various national food preferences. The market in this protein-rich country is not regarded as very significant, but the potential for sale abroad is thought to be fairly large.

Among those who would like to exploit that potential is the VioBin Company, of Monticello, Illinois, which has developed a process for producing fish flour from whole fish. The process involves azeotropic dehydration and extraction of lipids from whole granulated fish, out of which comes a flour-like 70-percent protein concentrate that VioBin offers at 15 cents a pound, F.O.B. Monticello. One reason the price is so low is that no labor is expended in cleaning the fish.

## Acceptability Abroad

VioBin's plans for the product are mainly directed abroad. For foreign sales, FDA approval is not necessary, but because many nations routinely require FDA's stamp of approval before they will permit the importation of American food and drug products, it is considered good business and public relations to acquire FDA certification—formally known as a standard of identity.

VioBin's application for such a standard was encouraged by American aid officials, who felt this country would be wide open for a propaganda thrust if it tried to give the lesser-developed nations a foodstuff uncertified for domestic consumption; encouragement also came from congressmen and senators from fishery states, who foresee prosperity for some of their constituents in a booming fish-flour industry.

FDA's initial reaction to the application was extremely cool, to some extent because its suspicions were aroused when the application was delivered by an aide to a New England senator, rather than by the manufacturer.

The method of delivery was by no means unique, but the FDA, although part of the Department of Health, Education, and Welfare, is an independent-minded agency whose officials take pride—as one put it—"in a 50-year record of keeping filth out of the American people's food."

Shortly afterward the FDA advised

some reporters that it was under pressure to certify a "filthy" product, one that it said included materials normally considered unfit for consumption in this country. These unfit materials were scales, eyeballs, and intestines, but particularly the intestines and their contents, the FDA made clear in the information it provided for the press. It was reported that some FDA officials said the product was objectionable on "esthetic" grounds. No question was raised on the issue of wholesomeness, nor was there any doubt expressed about the value of the product as a protein supplement. Small-scale field tests have produced convincing results, according to researchers at the Bureau of Commercial Fisheries.

FDA subsequently announced that it would consider public comments before arriving at a decision, although it was clear from the private comments of FDA officials that they would approve dog meat before they would approve whole fish flour.

The decision announced last week certified *cleaned* fish flour, but rejected the product made from the whole fish. FDA commissioner George P. Larrick said in an interview that the criterion employed in making the decision was "whether or not the product would be regarded as filthy by the average consumer."

Larrick agreed that a number of whole-fish products—sardines, shrimp, oysters, and clams—have FDA approval, but he noted that these had gained consumer acceptance before FDA was established. The commissioner indicated that he is amenable to a public hearing, a matter which is discretionary with the FDA if an applicant wishes to protest a decision. The results are subject to review by the U.S. Court of Appeals.

While the issue remains unsettled in this country, the Bureau of Fisheries is cooperating with the United Nations Food and Agriculture Organization in developing production facilities in South America. American aid officials seem to be tending to the thought that perhaps too much weight was assigned to the propaganda consequences that might result if FDA certification was denied. The issue will probably end up in court, since FDA does not seem inclined to change its views, but in the meantime it seems likely that efforts to increase production and use of the product will be largely unaffected by FDA's stand.—D.S.G.