

an even more flexible pattern for the use of vegetable protein products, this step by FDA does, in the United States, represent a major step forward in the permitted use of vege-

table protein products without restriction of existing food standards. One can only hope that the Department of Agriculture in its regulation of meat food products will follow a comparable approach.

Comments on the Report of the Study Group on Vegetable Proteins for Human Consumption, in Particular Meat Products, by the Commission of the European Communities (April, 1978)

L. SCHUTTE, UniMills B.V., Lindtsedijk 8, 3336 LE ZWIJNDRECHT, The Netherlands

Recently an E.C. Study Group, chaired by Prof. Ward, has published recommendations for use of vegetable proteins for human consumption, in particular meat products. The spirit of this report is extremely positive, since it acknowledges specifically soy protein products as valuable food ingredients, of which the use should rather be regulated than restricted. Notwithstanding this positive attitude, some criticism on certain proposed rules is still possible.

1. The report recommends products in which more than 2% soy protein product is used should contain a minimum level of vitamin B1, B2, B12 and iron. If this would mean that these micronutrients should be added to the soy protein ingredients rather than to the end-product (the report is not clear about this), the following comments can be made:

- I am opposed to addition of micronutrients to ingredients. If, in view of nutritional requirements of a population, fortifications are necessary, this should be done in foods rather than ingredients. It is unfair to place the burden of adequate nutrition on one ingredient, just because it happens to be new.
 - Soy protein materials are by themselves wholesome and natural food ingredients which do not have to be modelled to equivalency of other food ingredients.
 - It is always debatable when a soy protein product should be regarded as a "replacer" of other foods, particularly in new or fancy products. Must spaghetti be regarded as a potato replacer and therefore be fortified to an equivalent nutritional value?
 - There are considerable technical (mixing) problems if soy flour and concentrates have to be fortified, which will lead to unnecessary cost increase.
2. I see no reason why, as the report states, substitution for meat in meat products should be limited to 30% as an initial precaution. Large scale nutritional trials carried out recently and once more reported during this conference do not indicate any nutritional reason for such a limitation. Taste problems, which some years ago made higher levels than 30% less acceptable, can be overcome with proper refining techniques. Limiting the usage level to 30% would disfavor the application of improved, refined materials.
3. In products of type *a*, application of soy protein products would be allowed up to a level of 2% as technical aid. I think that 3% would be a more realistic maximum level, since this is frequently used in practice.
4. In products of type *b*, a maximum substitution of 30% (or 35% on protein basis) is recommended for extended meat products. On this I have the following comments:
- As stated above, a limit of 30% is rather arbitrary and

based on an old technology where acceptability was limited. A more logical borderline would be 50%, since products with more than 50% meat are certainly rather meat than vegetable protein products, and products with less than 50% meat are clearly falling outside the meat product area. A borderline of 50% would be in line with existing opinions in Western Germany and Belgium. A 50% limit would encourage the use of refined materials, which would enhance the acceptability and would also offer the optimum consumer benefits in terms of economy.

- I should therefore favor a regulation in which the products of type *b* (extended meat products) would contain at least 50% meat (or 50% of the minimum meat content), whereby the total protein content of the product should not be lower than expected in the nonextruded counterpart. Theoretically such a product could contain more vegetable protein than meat protein, when the end product is enriched in protein. The regulation proposed in the report, allowing for 35% of the total protein content being of vegetable origin, would encourage the use of ingredients with a low (48%) protein content, leading to uncontrolled addition of nonproteinaceous fillers.
5. I welcome the possibility of fancy products, products of type *c*, containing both vegetable protein products and meat as ingredients. It follows from the previous argument that in my opinion a borderline of less than 50% meat would be a logical limit. The category of type *d* products, with 97% vegetable proteins, seems to me redundant. Since ingredient listing is favored in all cases, there is hardly any risk for confusion if type *d* products are omitted as a separate category.
6. I am in favor of labeling regulations which are aimed to inform the consumer as to the nature of the product. Long and confusing names do not serve this purpose. Declaration of the source of vegetable protein in the product name leads to such a confusion, especially when more than one source is used. Moreover, the word "textured" is of no importance to the consumer, as it has no bearing on the composition of the product. The consumer can be informed adequately by mentioning the source of the proteins in the ingredient listing.

In spite of the above remarks, I should like to emphasize once more that the report must be considered as an extremely positive and valuable piece of work, which hopefully will lead to a desired uniformity in legislation in the E.C. and to increased possibilities of the use of vegetable protein ingredients in European foodstuffs.