Is Special Legislation for Vegetable Protein Really Necessary?

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There is no simple answer to this question. It needs to be viewed against the background of a country's food law. As far as the United Kingdom is concerned, the answer could be "no." However, taking into account the special nature of vegetable protein, its method of production, and the uses to which it can be put, perhaps the real answer is "yes."

In the United Kingdom, there are general provisions of the Food and Drugs Acts which compel manufacturers to ensure that any food product marketed is not injurious to health and is not sold in such a way as would mislead the purchaser as to its nature, substance, or quality. Nature covers variety or kind; substance covers all forms of adulteration and the introduction of alien substances in food; quality is difficult to define but would relate to the generally accepted quality of any food in question.

The Acts - different Acts apply in England and Wales, Scotland and Northern Ireland - make provision for the introduction of regulations which may control specific factors in relation to the composition, description, or general labeling of particular foodstuffs. The regulations in effect define in more detail the requirements of the Acts.

Some years ago the United Kingdom Food Standards' Committee was asked to consider whether special legislation governing vegetable protein, and indeed all types of so called "novel" protein, was becoming necessary. The Committee, which advises Ministers on questions concerning legislation on the composition and labeling of food, in turn asked the Chief Medical Officers' Committee on Medical Aspects of Food Policy for advice concerning the need to add nutrients to textured vegetable protein foods when used to replace meat. The report of the Working Party set up to consider this was included as an Appendix to the Report of the Food Standards' Committee on Novel Protein Foods, which was published early in 1975.

The recommendations in the Report covered a wide range of aspects of the use of the new protein foods. Paramount was the question of safety. The Committee considered that protein foods from sources not previously used for human food should come into sale and use as food only where evidence that they are safe for human consumption had been accepted by an independent group of experts. Similar controls were recommended for products derived from conventional sources but subjected to new forms of treatment where evidence suggested that there was likely to be a hazard to health. There were also recommendations about the descriptions to be used for protein products, whether from vegetable or other sources, and also for the minimum requirements to be set for nutrients when protein foods based on the field bean and on soy would be used as replacements for meat. The nutritional requirements took account of the general principle previously enunciated by the Committee on Medical Aspects of Food Policy that "any substance promoted as a replacement or an alternative to a natural food should be the nutritional equivalent in all but unimportant aspects of the natural food it would simulate."

The Report also recommended that where protein foods were used to replace meat, the level of replacements should not exceed 30% of any meat content prescribed by regulations and that some controls might be needed even when vegetable protein foods were used in addition to any prescribed amount of meats in a meat product.

These recommendations have not so far been converted into legal requirements. They have to be considered further in the light of representations made on them by trade, enforcement, or consumer bodies before the responsible Ministers decide to what extent and in what form they should be put into effect. Even then, proposals for regulations can still be the subject of further reconsideration in the light of representations made before finally becoming part of the law.

Development of United Kingdom food legislation may be considered by some to be a lengthy process, but hopefully it is one which enables the legislators to be sure, as far as is possible, that the final result will not impose unreasonable burdens on those responsible for complying with it. In the meantime we are able to take comfort from the fact that special legislation on vegetable protein is not immediately essential in the United Kingdom, bearing in mind the safeguards embodied inthe provisions of the Food and Drugs Acts. Nevertheless, United Kingdom officials concerned with food standards' control are not by any means ignoring the recommendations made by the Food Standards' Committee. Those on safety are being looked at in a wider context - the possible need for safeguards in relation to the introduction of all types of novel foods, whatever the source or the process. This will include all types of "novel" protein products. Discussions have been taking place with the food industry, with consumer organizations, and with enforcement authorities on this. Those recommendations on nutrition are being looked at again by a panel of experts set up by the Committee on Medical Aspects of Food Policy to take account of comments made by the food industry and of any new evidence which might be appropriate. Those on the replacement of meat in meat products are being further considered by the Food Standards' Committee itself as part of a full review of United Kingdom legislation dealing with meat products.

In this situation what can be said about what may be expected in the future? Is the conclusion that there is real justification for some special legislation on vegetable protein products? The following propositions are inevitably put forward as personal thoughts about the possible proposals which may be made in due course by the United Kingdom Government.

It seems inevitable in the future that there will need to be some form of check imposed on new foods coming on to the market in case there is some toxicological or nutritional hazard, either in the short or in the long term. Manufacturers may well come to regard any safeguards as a valuable additional check before they embark upon massive investment in new developments. Furthermore, it is difficult to conceive of real opposition to the philosophy that substitute foods should be nutritionally equivalent to the foods they are likely to replace, at least as far as significant nutrients are concerned.

On labeling, it is often desirable to have standard rules for descriptions of certain types of products, and maybe this would be appropriate for vegetable protein products and products containing vegetable protein. Decisions will be needed about the use of the word protein in the description of the food and whether it should be qualified by "food" or "product." On the whole there seems to be a case for certain specific labeling rules.

How far should there be specific controls over the use of vegetable protein in meat products? In the United Kingdom, most meat products have to contain a specified minimum meat content. While the recommendation for allowing up to 30% of the minimum meat content of controlled products to be replaced with protein products from vegetable or other sources was not entirely acceptable to

all trade, enforcement, and consumer interests, it is difficult to put forward a convincing argument against it. Products which are given a traditional meat name, or which have a name which persuades most of us that they are based substantially on meat, would be expected to contain a reasonable proportion of meat. The use of vegetable protein as replacement of part of the meat could have certain advantages. It might be a little cheaper in the long run and could also have certain effects on the texture and general nature of the product. This sort of provision, provided that the consumer is told what is going on, seems a sound proposal for specific legislation.

It seems, therefore, that we may well have a case for specific legislation covering safety, nutrition, labeling and partial replacement of meat. Is there anything else? I have left until the end what may be regarded as a more doubtful area. It is the question whether the use of more than a small "functional" amount of vegetable protein in a product should call for a change in the description. The argument is put that the use of vegetable protein can give the impression of an enhanced meat content and that this could be misleading without a change of name. But what are the problems? First, other substances can probably be used to match, to some extent, the effect of small quantities of vegetable protein so that any control based on vegetable protein alone may well be pointless. Second, provided a required minimum meat content is present, it seems inequitable to pick out vegetable protein alone from the other ingredients for special control.

Perhaps, as is often the case, a compromise would provide the best solution. I doubt if the consumer can really be upset about meat which may be meatier - or may appear so. However, if among discrete pieces of meat could be found something which the consumer could think was meat, when it was really made from something like vegetable protein, then maybe the consumer ought to know. My view would be that any specific legislation in this area should endeavor solely to cover this kind of example.

Current Developments in Protein Food Regulations – Labeling

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Panelists were Jim Hutchinson, Gene Lambert, John Vanderveen, Leonard Roberts, Anne Brincker, Frank Anderson, and Chairman Allen Ward, all of whom had been introduced earlier in connection with participation in Plenary Session C or Round Table Discussion C-1.

Professor Ward opened the session with a review of the salient points from C-1 as a background for dealing with questions left over from this earlier discussion. One of these questions presented an interesting different perspective. In the Plenary talks and C-1 Discussion, most attention had been given to regulatory problems pertaining to extending meat with vegetable proteins. How about the other way around? How about products consisting mainly of textured vegetable protein with some meat added? This question inevitably led to further discussion of the product categories in the EEC Study Group Report (cf. C-1). It was suggested that categories B and C in this report, which differ in the amount of added nonmeat protein allowed, might be merged. However, this would be objectionable if it should mislead the consumer by implying products are meat that in fact are predominantly vegetable protein. "Turkey ham" was cited as a name with useful features. The first word tells the source and the second gives the consumer an indication of the type of product and how to prepare and serve it.

Another question took note of the very thorough multi-input approach to a new regulation covering uses of vegetable protein products outlined by Frank Anderson's presentation in C-1 and asked if this UK approach is not more prudent than "rushing into print." Lest the inference be that this is what the U.S. is doing, it was pointed out that the FDA's current proposal is a culmination of eight years of study and deliberation. Even so, protein efficiency ratio (PER) is a key criterion in the proposal, and attention was called to the hot scientific controversy over the validity and relevance to human nutrition of PERs. This elicited a succinct statement of the classical conflict between science and law in regulatory matters: there is never a current, final, scientific answer, but there must always be a current, final, regulatory decision. Must there really? In view of the intensity of the PER debate, we should not have to wait too many years for a replacement or a scientific consensus. Factored into the "wait or act now" equation should be the greater difficulty of "rushing out of print" once a regulation is adopted.

Next the discussion moved to the subtopic originally billed as the main subject of C-2, namely labeling. Opening statements were made by Frank Anderson and Gene Lambert. A printed version of the Anderson statement is included in these proceedings. Mr. Lambert's remarks are not printed, but many of the points he raised were included in his earlier paper reproduced under C-1.

Much discussion followed on the extent to which labeling requirements should accommodate special interest and special risk groups. For instance, an intense lobbying effort is underway to require a symbol indicating the absence of artificial color and flavor additives. If this effort succeeds, it will set a precedent, and other groups have an equally legitimate basis for demanding similar identifying marks for products meeting their unique needs, e.g., individuals susceptible to celiac disease and those having specific food alergies. Of course, there is only so much space on a label, and each addition pushes something else off or necessitates making everything smaller. Most regulatory agencies are reluctant to impose on everyone complicated and expensive requirements relevant to only minute fractions of the population. On the other hand, essential information should be given to enable people to avoid foods to which they are allergic by carefully reading labels. Another approach is to encourage marketing of special foods like the familiar products for diabetics. In any event, generic names may not provide sufficient information, so "soy protein" should be favored over "vegetable protein" (which could include wheat gluten, the etiologic agent in celiac disease).

Finally, a note sounded in C-1 was again brought up. This pertained to the lack of emphasis given to needs of developing nations. If the 1973 Munich and 1978 Amsterdam Conferences on vegetable proteins have established a tradition, perhaps the next such meeting might focus more forcefully on concerns important to developing nations. Hopefully, by then the new Codex Committee on Vegetable Proteins will be in fairly active operation and can assist with identification of issues and delineation of regulatory options.