**Annual report : 1995 / Food Advisory Committee, Ministry of Agriculture, Fisheries and Food.**


# Food Advisory Committee Annual Report 1995

Ministry of Agriculture, Fisheries and Food

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# FOREWORD

I am pleased to be able to report that the Food Advisory Committee has once again had an extremely fruitful and rewarding year. We have continued to advise Ministers on a wide range of important issues including the Government's deregulation programme, the labelling of genetically modified foods and consumer understanding of nutrition labelling generally, various food additive issues, the use of enzymes in foods and several important food safety matters. We have also considered a number of food surveillance reports.

As far as deregulation is concerned, while the Committee has supported the Government's desire to achieve less but simpler and more effective regulation of food, we have at all times kept the maintenance of public safety as our first priority. On labelling, the Committee has made a number of recommendations to assist better understanding of nutrition labelling as well as advising on the labelling of a range of genetically modified foods. This latter area has been a particularly active one for us throughout the period of this report and in order to ensure that our labelling guidelines remain up-to-date and take account of developments in this fast moving area of food technology, we plan to review them during the course of 1996.

Our scrutiny of enzymes for use in food has continued and there is every sign that work in this area will increase still further in the coming year. Finally, we have once again considered a wide range of food safety issues, one of the most important aspects of our work, and considered ways of refining still further our approach to risk assessment and risk management. The Committee is particularly indebted to the Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment for all the help that it has provided to us on safety matters.

All the members of the Committee have as usual given unstintingly of their time throughout the year but I would like to pay a special tribute to the work of Mrs Jill Moore who died suddenly in October. She was an extremely active member of the Committee throughout her six years of service and her wisdom and knowledge of consumer affairs will be greatly missed by all who had the pleasure of working with her. Her untimely death saddened us all.

Colin M. Campbell

PROFESSOR SIR COLIN CAMPBELL

## FAC COMMITTEE MEMBERS
**(As at 1 November 1995)**

Seated left to right: Mrs Dorothy Craig, Professor Susan Shaw, Professor Sir Colin Campbell (Chairman), Mrs Joy Hardinge, Professor Catherine Geissler.

Standing left to right: Professor Alan Malcolm, Mr Roger Manley (Deputy Chairman), Professor Christopher Ritson, Mr Neville Craddock, Professor Frank Woods, Ms Barbara Saunders, Dr Richard Pugh, Mr Tom Miller, Mr Malvern Barnett, Mr Philip Strachan.

# INTRODUCTION

## TERMS OF REFERENCE, MEMBERSHIP AND SCOPE

1. The Food Advisory Committee (FAC) is an independent non-statutory body appointed by Ministers and has the following terms of reference:

> "To assess the risk to humans of chemicals which are used or occur in or on food and to advise Ministers on the exercise of powers in the Food Safety Act 1990 relating to the labelling, composition and chemical safety of food. In exercising its functions the Food Advisory Committee will take the advice and work of the Committee on Toxicity and other relevant advisory committees into account."

2. The Committee's main task is to review and prepare reports on all matters within its terms of reference and where necessary to make recommendations for legislation. The Committee gives its advice to Ministers who may then decide to make that advice public. Its role and its relationship with other committees are described in more detail at Annex I.

3. A list of members of the Committee is at Annex II. During the year, six members left the Committee on expiry of their terms of appointment. These were Dr Margaret Ashwell, Mr Robin Evans, Professor Douglas Georgala, Miss Patricia Mann, Mr Tom Martin and Mrs Jill Moore. They were replaced by Mr Malvern Barnett, Mr Neville Craddock, Mrs Dorothy Craig, Professor Catherine Geissler, Professor Alan Malcolm and Professor Susan Shaw. Professor Woods and Mrs Saunders were reappointed for a further three year term. In addition, Mr Roger Manley was appointed Deputy Chairman of the Committee from 1 November 1995.

4. Members are appointed to the FAC because of the expertise they have gained through their professional involvement with the food industry or food issues generally. Committee members are required to declare any interest in matters to be discussed. The Chairman may then, at his discretion, limit the participation of a member in a discussion. The Committee and Ministers consider it important that the Committee's advice should not be subject to suspicion of bias on the grounds of undeclared commercial interests. A formal register of members' interests has therefore been established and is published at Annex III of this Report.

5. This Report covers the business considered at the six meetings held by the Committee during 1995.

## THE COMMITTEE'S WORK IN 1995

### I DEREGULATION

6. In connection with the Government's deregulation initiative, the Committee has been asked to consider various proposals for food law deregulation since 1993 and work in this area has continued throughout 1995.

#### a) Food Contact Materials

7. In 1994, the Committee had briefly considered the Deregulation Study on Food Contact Materials. The study examined the legislative programme on food contact materials and made recommendations for the development of the legislation in ways which might reduce the costs incurred by industry, and ultimately the consumer, without jeopardising safety standards. In continuing its examination of this issue, the Committee looked at the results of the public consultation exercise on the study which had been carried out from April-August 1994. The majority of the conclusions and recommendations of the study were agreed by respondents. Most had similar reservations to those of the Committee on the use of 'negative' lists (ie lists of substances not permitted for use), preferring the use of 'positive' listing (ie lists of substances permitted for use). Also, many had considered it undesirable to attempt to negotiate in the European Community less detailed legislation for some contact materials. The Committee noted that the costs of evaluating substances were aggravated by companies' wish to maintain confidentiality about ingredients of their products. The results of the public consultation exercise on the study together with the views of the Committee were reported to Ministers in April 1995. Ministers agreed with both the views of the Committee and the conclusions of the report. The conclusions and recommendations were published in the Food Safety Information Bulletin.(1)

#### b) Compositional Regulations

8. The Committee considered proposals to amend or revoke certain food compositional regulations in the light of reports on the responses to successive informal and formal consultations. It agreed with proposals to:

i) revoke the Ice-Cream Regulations 1967, but to transfer to the revised Food Labelling Regulations the definition (but not the compositional requirements) for 'ice-cream' and 'dairy ice cream';

ii) simplify the Cream Regulations 1970 by revoking the additives provisions, and amending them to permit names other than the reserved descriptions (all of which, except for 'sterilised cream' would be

retained) to be used and to introduce a new requirement to declare the fat content in all cases;

iii) revoke the remaining provisions of the Skimmed Milk with Non-Milk Fat Regulations 1960, but transfer to the revised Food Labelling Regulations the requirement to label such products with a prominent warning about their unsuitability for feeding to babies. This requirement would be in general terms only and not as detailed as the present one;

iv) revoke the Food Standards (Fish Cakes) Order 1950 and the Food Standards (General Provisions) Order 1944, under which the former was made, linked with encouragement to the industry voluntarily to declare the fish content of fish cakes in anticipation of the expected EC requirements under a proposal on quantitative ingredient declarations (QUID);

v) simplify the Bread and Flour Regulations 1984 by revoking most of the reserved descriptions, except those for 'wholemeal bread' and 'wheatgerm bread' while retaining provisions on enzymes, fortification and flour treatment agents (except benzoyl peroxide and azodicarbonamide - see paragraph 24) pending future review of these;

vi) revoke the Soft Drinks Regulations 1964, but transfer to the revised Food Labelling Regulations provisions on the use of the terms 'tonic water' and 'low calorie', linked with encouragement to the industry to voluntarily declare fruit juice content, where appropriate, in anticipation of the expected EC requirements under a proposal on QUID; and

vii) await comments from a recent further consultation on a proposal to revoke the Cheese Regulations 1970 and replace them with Regulations which contain:

- a basic definition for cheese, similar to that proposed in June 1995;
- a requirement for *all* cheese to bear a fat declaration content on the product label, in the same field of vision as the name of the food;
- the current provisions on enzymes; and
- enforcement and penalties provisions.

9. Ministers took note of the FAC's comments in deciding the final form of the various national food compositional Regulations which were revoked or amended on 1 January 1996. The changes included those set out at sub-paragraphs iii), iv), v) and vi) above. On ice cream both definitions and compositional standards were retained, in

the Food Labelling Regulations, for 'ice cream' and 'dairy ice cream'. On cream and cheese the requirement to declare the fat content was not introduced but the other points in ii) were implemented in the Cheese and Cream Regulations 1995.(2) These Regulations also contained a basic definition of cheese; existing maximum water and minimum milk fat requirements for twelve British cheeses. Both the Cheese and Cream Regulations 1995(2) and the Bread and Flour Regulations 1995(3) maintain existing controls on the use of enzymes (but see paragraphs 10 and 11).

### c) Controls on Enzymes

**10.** The Committee was asked to consider whether the existing restrictions on the use of enzyme preparations in the manufacture of bread and cheese should be removed. In the recent deregulation review of the Bread and Flour Regulations 1984 and the Cheese Regulations 1970, a number of respondents had questioned the logic of the current situation, whereby specific UK Regulations controlled the use of enzymes in bread and cheese but in no other foods. The COT had advised that enzyme preparations generally present a low risk to health. The controls on enzymes had been originally introduced as part of wider restrictions on the composition of bread and cheese. The controls were generic and did not restrict the source of these enzymes nor list those which could be used.

**11.** The Committee agreed there was an anomaly in the way the use of enzymes in food manufacture was regulated in the UK. It accepted there was no evidence to suggest that enzyme preparations used in bread and cheese presented a greater risk than those used in the manufacture of other types of food and that these risks were low, as a consequence of the low levels of use in food. It recognised that the existence of these restrictions disadvantaged industry and consumers, since UK manufacturers were unable to use potentially beneficial enzyme products and were at a disadvantage compared with some of their overseas competitors. In the absence of any specific data raising implications for the quality or safety of bread and cheese arising from the use of enzyme preparations, the Committee saw no justification in singling them out for special attention. It recommended that the existing restrictions should be removed and that the use of enzymes in bread and cheese should, as with other foods, be subject only to the general provisions of the Food Safety Act. It did, however, wish to see the voluntary system of approval of enzyme preparations continue. The Committee's recommendation came too late to be included in the main package of deregulation measures but were submitted and agreed by Ministers early in 1996.

## II LABELLING AND INFORMATION

### Genetically Modified (GM) Products

**12.** As in previous years the Committee was asked to advise on the labelling of a number of foods developed with the aid of genetic modification following their clearance on safety grounds by the Advisory Committee on Novel Foods and

Processes (ACNFP). Each application was examined on the basis of the FAC's own published GM labelling guidelines.(4) These were as follows:

### a) Labelling of Tomato Paste Obtained from GM Tomatoes

13. The Committee considered two submissions concerning tomato paste produced from GM tomatoes to improve fruit quality by the reduction of the pectin-degrading enzyme, polygalacturonase. The Committee noted that the fully processed product did not contain any different genetic material to that obtained from conventionally-bred varieties. The Committee therefore agreed that there was no need for any special labelling requirement as a condition of approval. Nevertheless, it wished to encourage the voluntary provision of informative labelling by industry in response to public interest. Ministers accepted the Committee's advice and that of the ACNFP.

### b) Labelling of GM Tomato to be Consumed Fresh

14. This tomato had been genetically modified principally to include the FLAVR SAVR™ gene which delays fruit softening. The Committee noted that the nutritional composition of the tomato did not differ from conventionally-bred varieties and that all the inserted genes present were of tomato or microbial origin. However, given that this was the first product considered by the Committee where viable inserted GM material remained in the food, the Committee decided that it should review its guidelines to determine whether they adequately catered for such a situation before reaching a decision as to whether or not special labelling should be made a condition of approval. It plans to do this in 1996.

### c) Labelling of Oil Produced from GM Oilseed Rape

15. The Committee considered four submissions. Two of these were for GM lines to be used in a plant breeding programme to produce hybrid seed; the others were for lines that had been genetically modified for herbicide tolerance. In all these cases, the Committee noted that all the genes inserted into the crop plants were of microbial origin, that the fully processed oil did not contain any viable inserted genetic material and that the composition of the oil from the GM oilseed rape did not differ from that obtained from conventionally-bred varieties. Given this information, the Committee agreed that there was no need for any special labelling requirement as a condition of approval. The Committee's advice and that of the ACNFP was accepted by Ministers and approval has been given for the use for these oils.

### d) Labelling of Processed Food Products Derived from a GM Maize

16. The maize had been genetically modified for insect resistance. The Committee noted that all the genes inserted into the maize were of microbial origin, that the fully processed products did not contain any viable inserted genetic material and that the composition of the processed products derived from the GM maize did not differ from

those produced from conventionally-bred varieties. Given this information, the Committee agreed that there was no need for any special labelling requirement as a condition of approval. The Committee's advice has been forwarded to the ACNFP.

**e) Labelling of Processed Food Products Derived from GM Soya Bean Lines**

**17.** The soya beans had been genetically modified for herbicide tolerance. The Committee noted that all the genes inserted into the soya beans were of microbial origin, that the fully processed products did not contain any viable inserted genetic material and that the processed products derived from the GM soya beans did not differ from those produced from conventionally-bred varieties. Given this information, the Committee agreed that there was no need for any special labelling requirement as a condition of approval. The Committee's advice and that of the ACNFP was accepted by Ministers and approval given to the use of these products.

**Report of the Food Advisory Committee (FAC)/Nutrition Task Force (NTF) Joint Working Group on Consumer Understanding of Nutrition Labelling**

**18.** The Committee had considered the case for a system of graphical nutrition labelling on a number of occasions since 1992. In 1994 it had concluded that on the basis of research results it could not recommend any particular system. The Committee had also been conscious of the fact that although some claimed that consumers did not understand the present numerical system there was no hard evidence to substantiate this. As a result the FAC/NTF Joint Working Group had been set up to examine the level of current understanding of nutrition labelling. Mr Roger Manley (who chaired the Group), Dr Richard Pugh and Mrs Jill Moore represented the Committee.

**19.** In order to improve understanding of consumers' use of nutritional information, a survey was carried out early in 1995. The Group considered the results and also took account of comments submitted to it by outside interests. The Committee endorsed the Group's recommendation that for some sectors of the population, further non-label information on how to use nutrition label information was required. It welcomed the Ministry's intention to issue a leaflet for this purpose and was anxious to see it targeted correctly. The Committee also agreed with the Group's further recommendation that other sectors of the population would benefit from supplementary label information. It obtained confirmation from the NTF that it was appropriate to concentrate this on one or two nutrients (fat and saturated fat). The Committee endorsed the Group's suggestion that further research be carried out into different ways of presenting this information and was pleased to hear that industry had already begun to consider commissioning research in this area. The Committee will receive an update on progress on this issue during 1996 and a report will be submitted to Ministers.

## III ADDITIVES AND OTHER SUBSTANCES USED IN OR IN CONNECTION WITH FOOD

### Additives/Novel Foods Overlap

20. The Ministry regularly receives requests from manufacturers for clearance of substances recently developed, or in the process of development, for use in food. Many cases are straightforward but it has been the practice to consult the Committee on certain 'grey area' substances which fall between food additives and novel foods.

21. With the adoption of the EC Directive on Food Additives other than Colours and Sweeteners(5) and advances in the Brussels negotiations on novel foods some, but not all, of the previous legal uncertainties over the classification of individual substances have now been removed. The Committee's advice was therefore sought on the approach to be followed. It was clear that fat replacers would fall outside the EC definition of additives and would in future have to be considered as novel foods. In the light of this, the Committee agreed that all future individual applications for evaluations of fat replacers should be referred to the ACNFP. It also agreed that the addition of a substance primarily to provide dietary fibre was not for a technological purpose (thus not an additive function) and should therefore be treated as a novel food. In relation to the application of the definition of 'food additive', given in the Food Additives Framework Directive 89/107/EC(6), the Committee considered that the phrases 'not normally consumed' and 'not normally used' should relate to practices within the European Union but not usually to any further afield. Finally, the Committee approved a decision tree drawn up in order to aid agreement on a case-by-case basis as to whether a newly developed 'grey area' substance should be considered as a food additive or a novel food and thus whether the request for its approval should be referred to the FAC or the ACNFP. A copy of the decision tree is at Annex III.

### Operating Criteria of the FAC and ACNFP in the Assessment of Novel Foods and Processes

22. The Committee considered its operating procedures and those of the ACNFP and looked at the criteria that each Committee used when assessing novel foods and processes. Whilst recognising that the ACNFP's terms of reference made it the lead Committee for providing advice on any aspects of the manufacture of novel foods, the Committee wished to be informed at an early stage of issues going to the ACNFP in order to allow additional comment, where appropriate, from the wide range of expertise represented on the FAC. The Committee recognised that in reporting to Ministers, it was more convenient for them to receive a single report on an issue, bringing together the advice of all the Committees that may have considered it and agreed that this advice should be submitted by the lead Committee. It also agreed that it should be normal practice for an indication of Committee decisions to be made publicly available at each stage in the evaluation process.

## Hydrogenated Poly-1-Decene - A Case of Need as a Glazing Agent for Confectionery

23. The Committee was asked to consider the case of need for hydrogenated poly-1-decene (a synthetic hydrocarbon also known as polyalphaolefin - PAO) as a glazing agent for sugar confectionery. These substances fell within the definition of mineral hydrocarbons, used in the Mineral Hydrocarbons in Food Regulations 1966.(7) The case of need was accepted by the Committee and the submission referred to the COT for its advice on the safety in use of these substances. Although this use was permitted by these Regulations, controls on their use as glazing agents are now subject to the provisions of the European Parliament and Council Directive on Additives other than Colours and Sweeteners (95/2/EC).(5) New UK Regulations(8) which implement the Directive came into effect from 1 January 1996. The new legislation does not permit the use of mineral hydrocarbons as glazing agents, although previously permitted limited uses may continue for a transitional period up to 25 March 1997. If the COT gives a satisfactory safety assessment, Ministers could be asked to consider allowing the use of hydrogenated poly-1-decene under the two-year temporary national authorisation provided for in the EC Food Additives Framework Directive (89/107/EC)(6) pending its consideration for EC authorisation under Directive 95/2/EC.

## Flour Treatment Agents - Azodicarbonamide

24. In 1990 the Committee was asked to carry out a review of the need for flour treatment agents. The COT was also asked to review the safety of these substances since a number of them carried long-standing requests for further data from earlier evaluations. On one of these, azodicarbonamide (ADA), the COT had a number of concerns on which further data had been requested but as this had not been forthcoming, advised that this substance should no longer be permitted as a flour treatment agent. In the light of this, the FAC recommended to Ministers that ADA be removed from the list of permitted flour treatment agents in the UK Bread and Flour Regulations 1984 at the earliest opportunity. Ministers accepted the Committee's advice and ADA was omitted from the list of permitted flour treatment agents in the new Bread and Flour Regulations 1995(3) which came into force on 1 January 1996. Copies of the FAC/COT statement have been made available to interested parties.(9)

## Consideration of the Fat Replacer Olestra

25. The Committee was informed that the Company wished to submit further data on olestra in support of its earlier application for clearance of this fat replacer. The Committee agreed to await the assessment of this before reaching a decision on the use of this substance.

**Enzymes - Hemicellulase preparations from: (a) *Aspergillus niger*, (b) *Trichoderma longibrachiatum*, (c) Genetically Modified (GM) *Aspergillus niger* and (d) Genetically Modified (GM) *Bacillus subtilis***

26. Following the FAC's acceptance of a case-of-need for hemicellulase in breadmaking, a number of submissions on individual hemicellulase enzyme preparations are currently being considered by the relevant expert Committees. One received clearance by the FAC and the COT during 1994 and four further applications were considered in 1995. As two of these related to enzymes prepared from GM sources, safety assessment was carried out by both the COT and ACNFP.

27. The Committee noted that the COT had in all four cases recommended temporary clearance for one year and had specified the further data requirements for full approval. It also accepted the advice of the ACNFP on the two GM hemicellulases that there were no safety concerns arising from the genetic modification procedures used to develop the strains of micro-organisms from which these two hemicellulase products were derived. The ACNFP also concluded that the enzyme preparations did not contain any genetically modified material. The Committee considered that sufficient information had been provided by the companies to demonstrate that suitable quality control systems were in place to ensure the consistent manufacture of all these preparations and that the proposed specifications were acceptable. It also decided that no special labelling for the two GM preparations was required. The Committee therefore concluded that temporary clearance for a period of one year should be given to each of these preparations and endorsed the further data requirements of the COT.

## IV SAFETY ISSUES

### MAFF Advice on the Use of Cling Film

28. Data had been produced which allowed the COT to give safety clearance to two substances which are major ingredients in the manufacture of cling film - di(2-ethylhexyl) adipate (DEHA) and epoxidised soya bean oil (ESBO). The FAC recognised that the clearance of these substances meant that there were now cling films available which could be used to wrap high fat foods and so the advice on cling film, originally issued in November 1990, should be revised. The new advice, which has been agreed by Ministers includes a requirement that cling films should be clearly labelled to show the uses for which they were suitable. Interested parties including industry, retailers and consumer groups have received copies and details have been published in the Food Safety Information Bulletin.(10)

## Risk Benefit Analysis and Application of the As-Low-As-Reasonably-Practicable (ALARP) Approach - Case Studies on the Chemical Contaminants Aflatoxins and Cadmium

**29.** In 1994 the Committee considered some general risk/benefit approaches that had been developed for use in areas other than food safety, and discussed whether any of these methodologies could be of value to the Committee. Its discussions focused principally on the 'as-low-as-reasonably-practicable' (ALARP) principle. This is a development of risk/benefit analysis which sets a boundary above which risks should never be tolerated and another below which risks are negligible. Following further discussion on the possibility of applying the approach to chemical contaminants, a research project was commissioned at the University of East Anglia to explore in more detail the use of risk-benefit analysis, including the ALARP approach, to aflatoxins and cadmium. The Committee expects to return to this subject when the results of the project have been received.

## Use of Intake Data for Different Age Groups (Including Children) in Food Chemical Risk Assessment

**30.** The Committee is responsible for providing advice on risk management of chemicals in food, on the basis of toxicological advice from the COT. This latter advice is usually provided in the form of an Acceptable Daily Intake (ADI) in the case of additives and a Tolerable Daily or Weekly Intake (TDI/TWI) in the case of contaminants. It is the task of the Committee to compare this advice with estimates of likely intake to determine whether action is needed to manage the risk. During the course of this year, the Committee examined some specific food additive examples which illustrated the influence of the time period over which intake surveys had been carried out on estimates of intakes. It concluded that there might be a need in certain circumstances to consider intakes of additives and contaminants by critical groups and also to consider short-term intakes. The Committee requested that the issue be referred to the COT for advice on the pros and cons of using different time periods and identifying critical groups when presenting information on acceptable or tolerable intakes of chemicals in food.

## Development of a New Approach to the Risk Assessment of Inherent Natural Toxicants: the Whole Food Approach

**31.** When the Committee last considered the risk to human health from naturally occurring toxicants in food, it acknowledged that they might need to be assessed differently from other classes of food chemicals and asked to be kept informed of developments. It is increasingly being recognised in scientific circles that there are problems in applying traditional toxicological assessments to natural toxicants (ie identifying the toxic component of the food, subjecting it to extensive toxicological evaluation in isolation from other food components and estimating its intake by consumers). It would, for example, be an overwhelming task to identify and isolate all

possible natural toxicants and generate all the necessary toxicological data; to determine the availability of a natural toxicant in the human body and its interaction with other food constituents; and to take account of the large variation in concentrations of natural toxicants in plant-based foods. The lack of all this information makes it difficult to balance the potential toxic effects of a substance against a foods' nutritional advantages. A new approach has been developed known as the 'whole food approach' whereby both toxic and beneficial factors (such as nutrient and protective factors) are taken into account. The Committee was informed that this approach had already been received favourably in scientific circles. Members agreed that this approach was a worthwhile way of tackling this difficult issue, that it should be developed further and that it should be published to encourage debate.

**Inherent Heavy Metal Contamination of Certain Foodstuffs**

**32.** In 1994, the Committee had considered a paper on the appropriate methodology for setting maximum tolerable concentrations of contaminants in food, taking cadmium as an example. As certain foodstuffs accumulated heavy metals it had wished to consider the question of individuals with high intakes of such foods and the potential problems which might result. In a further paper the Committee learnt that certain food groups notably offal, fish, shellfish and bivalves, cereals and some vegetables might naturally accumulate heavy metals (lead, cadmium, mercury and arsenic). These raised levels of heavy metals were due in a large part to their absorption from sources that were present naturally in the environment. The Committee agreed, however, that high level consumers of such foods were unlikely to exceed the provisional TWI on other than an occasional basis. The Committee concluded that surveillance for heavy metals should continue to be carried out in order to ensure that exposure was being kept to as low a level as possible and did not in any case rise above current concentrations. It wished efforts to minimise contamination of foods by such chemicals to continue and further data to be obtained on the intakes by individuals who consume particularly high levels of those foods known to contain them.

**Patulin in Apple Juice**

**33.** For the last few years, the Committee had been considering the problems associated with the occurrence of the mycotoxin patulin in apple juice. In 1992, following advice from the COT, it had set an advisory level for patulin in apple juice of 50µg/kg. Each year since then the Ministry had carried out a survey of apple juice to check whether apple producers were complying with this advisory level. The Committee considered the results of the 1995 survey, which focused mainly on directly produced apple juice (ie that not made from concentrate) which had previously been shown to be the most likely to contain high levels of patulin. The Committee was pleased with the progress that had been made by the majority of producers, noting that the vast majority of samples tested contained patulin at levels below 50µg/kg. It noted, however, that 6% of the samples contained patulin at or above 50µg/kg and a few were well above this advisory level. In the light of this

year's surveillance results and the advice from the COT that the level of patulin should be reduced to the lowest that is technologically achievable, the Committee reaffirmed the need to maintain the current advisory level at 50µg/kg and wished to see comprehensive adherence by industry to this level. A detailed statement of the Committee's advice was published in the November issue of the Food Safety Information Bulletin.(11)

**Herbal Drinks for Babies and Very Young Children**

**34.** Consumption of infant herbal drinks has increased significantly in the past ten years. As both MAFF and Department of Health (DH) were anxious to ensure that the intake of these products did not give cause for concern, the Committee's advice was sought. In 1994, the Committee on Medical Aspects of Food Policy had questioned the need for such drinks and advised that, if herbal drinks were given to babies, they should not contain herbal constituents which did not form part of the normal diet nor should they be given at concentrations higher than those normally found in food. Although the FAC acknowledged that the concentrations of constituents in baby herbal drinks were generally low and less than those found in the normal adult diet, it was anxious that companies should not use natural constituents without considering the possibility of harmful effects. It recommended that DH should be asked to advise on the safety implications of the herbal ingredients and to consult the COT if necessary.

**Sweetener Intakes by Young Children**

**35.** In 1994, as part of the review of the market for intense and bulk sweeteners in the UK, the Committee had been informed that young children's intake of intense sweeteners would be estimated using food composition data from the impending National Diet and Nutrition Survey of children aged 1-to 4-years. This survey has since been published.(12) The Committee considered the intakes of three intense sweeteners, saccharin, aspartame and acesulfame K. Intakes by toddlers of aspartame and acesulfame K were found to be well within their respective ADIs. However, the results of the analysis revealed that intakes of saccharin by 'high level' consumers in this group were 6.49mg/kg bw/day slightly more than the ADI of 5mg/kg bw/day set by the COT. ('High level' consumption is defined as the level which would not be exceeded by more than one-fortieth of the consuming population on average in any one week period.)

**36.** The Committee noted that ADIs were a measure of the acceptable daily intake of an additive over a lifetime and that the COT did not consider that occasionally exceeding this figure would be likely to have any adverse effects on the health of the consumers concerned. It was considered to be extremely unlikely that any of the children currently exceeding the ADI would continue to do so as their dietary patterns changed over time. Nevertheless, the Committee decided that it would be prudent to provide advice to carers that if concentrated soft drinks, a major source of artificial sweeteners, were given to children under 4-years of age, it was important that more

water be added than for adults. The Committee wished to see appropriate dilution advice given to carers on the label of soft drinks as well as through leaflets and through young children's clinics. The Committee noted that a Foodsense leaflet issuing advice on healthy eating to carers of young children in this age group was currently being prepared by the Ministry and agreed that this would be a suitable opportunity to promote the dilution message. The Committee's recommendations have been made known to industry which has responded favourably.

### Sweetener Intakes by Diabetics

37. In February 1995, the Committee was presented with interim results of a survey on sweetener intakes by diabetics. These revealed that the intakes of a small number of individuals exceeded the ADI for saccharin. Later in the year, the Committee was asked to consider the results of the completed survey. Less than 2% of the survey population had an intake of more than the recommended 25g/day for bulk sweeteners (and fructose), the major source of bulk sweeteners being sorbitol-containing foods. Intakes of saccharin, aspartame and acesulfame K by 'high level' consumers were found to be well within their respective ADIs. Less than 1% of the survey population (940 individuals) had exceeded the ADI of any intense sweetener. A subsequent re-survey of the top 1% of consumers had indicated that whilst it was likely that there would always be a number of individuals who exceeded the ADI of a sweetener at any one point in time, it was unlikely that they would be the same individuals on each occasion. The Committee concluded that there appeared to be no cause for concern regarding the intake of any of the permitted sweeteners by the UK diabetic population. As the survey showed an apparent reduction in saccharin intake by diabetics since the last sweetener survey in 1988, the Committee considered that no further action, other than the continuation of the voluntary labelling initiative, was warranted to reduce intakes of this sweetener by diabetics. The results of the survey were published in the Food Safety Information Bulletin[11] and an information sheet providing further details has been made available.[13]

## V FOOD SURVEILLANCE REPORTS

### Food Surveillance Paper on Metals in Food

38. The Committee was asked to comment on a draft report prepared by the Working Party on Inorganic Contaminants in Food, one of the working parties of the Steering Group on Chemical Aspects of Food Surveillance (SGCAFS). The draft report presented recent data on lead, arsenic, copper, aluminium, boron, iron, nickel, lanthanum, and the 'rare earth' elements. Included in the draft report were dietary intakes for these elements estimated using results from the 1991 Total Diet Survey and the National Food Survey. The Committee welcomed the report and was reassured by the fact that the average dietary intakes of these elements from the UK diet were within internationally recognised safety limits and were not a cause for toxicological concern. The Committee recognised that whilst the Total Diet Survey was useful in determining temporary trends for the dietary intakes of contaminants for average

consumers, information about high level consumers could help ensure more effective consumer protection. It thus examined intakes of the elements listed above for such consumers (which had been compiled using consumption data from the Dietary and Nutritional Survey of British Adults) and concluded that these were also reassuring. It wished to see details of these intake calculations for high-level consumers presented as an Addendum to the report. The Committee's views will be set out in the Working Party's report when it is published.

**Food Surveillance Paper on Metals in Food: Second Progress Report**

**39.** The Committee was asked to comment on a second draft report prepared by the Working Party on Inorganic Contaminants in Food. The draft report presented recent data on cadmium, chromium, cobalt, lithium, manganese, mercury, molybdenum, selenium, tin and zinc in food. Included in the draft report were dietary intakes for these elements for both average and 'high-level' consumers estimated using results from the 1991 Total Diet Study, the National Food Survey and the Dietary and Nutritional Survey of British Adults. The Committee welcomed the report and was reassured by the fact that both the average and 'high-level' dietary intakes of mercury, tin, chromium, cobalt, lithium, manganese, molybdenum and selenium from the UK diet were not a cause for toxicological concern. It noted, however, that intakes of tin had apparently increased and welcomed a proposal to look more closely at canned vegetables and canned fruit, from which this increase stemmed. The Committee recommended that dietary intakes of cadmium should continue to be monitored in view of the low safety margin between dietary intakes and the provisional TWI. It then discussed the effects of supplementation of the diet with zinc preparations, given that the estimated average dietary intakes of zinc were adequate for most people. The Committee's views will be set out in the Working Party's report when it is published.

**Food Surveillance Paper on Flavourings in Food**

**40.** The Committee was asked to comment on a draft report prepared by the Working Party on Food Additives, one of the working parties of the SGCAFS. The draft report presented the results of two major UK surveys of artificial flavouring substances and natural flavouring source materials and preparations, which had been carried out between 1984 and 1991. It also presented the results of a small-scale analytical survey of flavouring preparations likely to contain certain natural toxicants known as biologically active principles. The Committee, whilst acknowledging that some of the results of the older surveys might not reflect current practice, welcomed the report, which was the first to be produced on flavourings. It noted that some of the concentrations of biologically active principles found in natural flavouring source materials and preparations were higher than those quoted in the scientific literature and those routinely found by the UK flavourings industry and was pleased to learn that work was underway to investigate these differences further. The Committee's views are set out in the Food Surveillance Paper which was published in November.(14)

**Food Surveillance Paper on the Authenticity of Dried Durum Wheat Pasta**

41. The Committee was asked to comment on a draft report prepared by the Working Party on Food Authenticity, one of the working parties of the SGCAFS. The Working Party had carried out a survey between July and September 1994 which investigated the authenticity of dried durum wheat pasta sold in the UK and the results of the survey were given in the draft report. All but one of the 249 samples of dried pasta were found to be correctly described. The Committee's views are set out in the Food Surveillance Paper which was published in October.(15)

**Surveillance and Estimation of Dietary Exposure to Pesticides – Report of the Working Party on Pesticide Residues: 1991-1993**

42. The Committee was asked to comment on a draft summary report prepared by the Working Party on Pesticide Residues, which reports jointly to the SGCAFS and the Advisory Committee on Pesticides. The report presented the results of routine surveillance for pesticide residues in food, special surveys and enforcement monitoring between January 1991 and December 1993. The COT had considered the results in the report to be generally reassuring. The Committee noted that the step-wise approach to estimating dietary intake provided a useful, rapid screen for identifying residues for which more information was required, so that resources could be targeted where they were most needed. The Committee welcomed the studies that had been undertaken by the Working Party on the effects of processing, such as washing, peeling and domestic cooking, on the levels of residues in food and supported the need for further research in this area. The Committee views will be set out in the Working Party's report when it is published.

**Food Surveillance Paper on the Authenticity of Soluble Coffee**

43. The Committee was asked to comment on a draft report prepared by the Working Party on Food Authenticity, one of the working parties of the SGCAFS. The report presented the results of a survey carried out between October 1993 and April 1994 which had investigated the authenticity of coffee sold in the UK. This had found fifty (15%) of the 344 samples surveyed to be adulterated with non-coffee bean plant matter. Most of the adulterated samples came from the cheaper end of the market. No food safety problems were associated with this type of adulteration. Although it had not been intended to be an enforcement exercise, individual trading standards and environmental health departments who participated in the survey were informed of the results of the samples they collected. The Committee welcomed the action that had been taken by the trade, Local Authority Co-ordinating Body on Trading Standards (LACOTS) and MAFF to develop a Code of Practice to help prevent the sale of adulterated instant coffee in the UK. The Committee's views are set out in the Food Surveillance Paper which was published in April.(16)

# ANNEX I

## THE ROLE OF THE FOOD ADVISORY COMMITTEE AND ITS RELATIONSHIP WITH OTHER COMMITTEES

## THE ROLE OF THE COMMITTEE

### Assessment of food additives

1. With the recent adoption of specific European Parliament and Council Directives on food additives and UK implementing legislation, the procedure for the assessment of additives has altered. Final approval of the use of a new additive is now subject to agreement at Community level, although there is a provision in the Food Additives Framework Directive 89/107/EEC,(6) which enables a member state to authorise the use of a new additive on a temporary basis. If a manufacturer requests that a new additive be permitted for use or that a new use be allowed for an additive already permitted, the manufacturer is encouraged to submit an application for its approval to the European Commission for it to be assessed by the Scientific Committee for Food (SCF). At the same time, an application may be submitted to the Food Advisory Committee to consider whether there is a genuine need for that additive or use. With the benefit of safety advice from the COT or SCF, the FAC would formulate advice to Ministers who then decide whether to take advantage of the provisions for temporary national authorisation. At the end of a two-year period the additive may only continue to be permitted if the European Commission comes forward with a proposal to amend the appropriate Directive and this is agreed by the Council of Ministers and the European Parliament.

### Risk assessment

2. Risk assessment is a means of estimating potential harm. Any additive or other substance intentionally added to food is subject to risk assessment prior to approval and already approved ones are reconsidered in the light of new data or changes in intake levels (see paragraphs 3 and 5). Chemical contaminants are unintentional additions arising through a variety of routes (eg natural toxicants such as mycotoxins; soil contaminants such as metals; contaminants from intentional additives or by-products formed from intentional additives) and may therefore be harder to quantify than substances added intentionally. The Committee draws on the detailed work of the COT, other advisory committees and experts within MAFF in order to assess risk.

3. For substances other than genotoxic carcinogens, the COT usually provides its advice in the form of an acceptable intake (paragraph 4). If intakes of a particular substance in the human diet are likely to increase because of new uses or changing dietary patterns so that there is a possibility of acceptable intakes being exceeded, the Committee will then advise on the management of that risk. It might, for example, recommend maximum levels of use for a substance or that its use should be prohibited. Chemical contaminants found in food may be judged by the same criteria

as additives, though the measurement of absolute levels may present a greater practical challenge. Intake factors for certain contaminants may be subject to greater variation due to external factors. For example, natural toxicant levels may depend on ambient conditions both of growth and storage. Thus the complementary exercises of risk assessment and risk management become more complex. A regular system of monitoring is therefore essential. When new data concerning a currently approved additive or known contaminant are presented to the Committee, it may modify its previous advice on risk management.

4. In recent years the Committee's role in the risk assessment and risk management procedure has grown, largely as a consequence of the change in format of the safety advice offered by the COT. In the past the COT offered its advice in the form of categories A to E, which defined the degree of suitability of a food additive for use in food. The COT, in line with most expert advisory committees on food safety, now issues its advice in a numerical form as an ADI. (When the estimated consumption of an additive is expected to be well below any numerical value that would ordinarily be assigned to it, an ADI 'not specified' may be allocated.) The ADI has most recently been defined by the WHO as 'an estimate of the amount of a food additive, expressed on a bodyweight basis, that can be ingested daily over a lifetime without appreciable health risk'. This change has meant that the FAC has become responsible for the final stage of the safety evaluation in so much as the advice in the form of an ADI needs to be related against current and likely future intakes of the additive concerned. This is necessary in order to determine whether advice on risk management is required to maintain intakes by UK consumers within acceptable limits. In the case of contaminants the COT's advice is in the form of a TDI or TWI. For contaminants which are genotoxic carcinogens, the COT has advised that it is not possible to set tolerable intake levels. In this case, the COT advises that the levels of the contaminant in the food should be as low as is technically achievable. The FAC advises on what the level should be, balancing the need to keep levels as low as possible without unreasonably restricting the supply of food.

## Risk management

5. Where a potential risk to consumers is identified, the FAC balances this risk against evidence of possible benefit to consumers from the use of the substance or consumption of the food which may contain a contaminant. This allows the FAC to recommend strategies for the effective management of food chemical risks. In order to maintain intakes within acceptable levels, current and future uses of additives may need to be restricted. Similarly, the presence of chemical contaminants in a food may require either physical or chemical removal of the contaminant or the introduction of controls. In other cases, it may be more appropriate to issue advice to specific groups of the population who might be at potential risk of exceeding acceptable intakes.

### Labelling

6. Food labelling is controlled by the Food Safety Act 1990 and the Food Labelling Regulations 1984 (as amended) which implement the EC Food Labelling Directive 1979. The Directive largely harmonizes food labelling legislation throughout the European Union and there is now very little scope for unilateral national measures except for foods which are sold loose or in catering establishments. The Committee advises Ministers on labelling issues within this context. It advises on general policy, for example, in relation to EC proposals and it considers the need for special labelling for certain categories and individual products. The FAC's Report of its Review of Food Labelling and Advertising 1990[17] set out the Committee's broad philosophy in this area and stressed the importance of clear, accurate and informative labelling, with which Ministers agreed.

### The European aspect

7. A further and increasingly important aspect of the Committee's role relates to the harmonization of legislation on matters of food safety, labelling and consumer protection throughout the EC. The FAC is one element of a wide process of consultation and advice to Ministers which helps form the basis for a negotiating position in Brussels on those matters. A number of detailed measures still remain to be agreed following the establishment of the Single European Market and it is important that the UK plays a significant role in the formulation of EC legislation.

## THE FOOD ADVISORY COMMITTEE'S RELATIONSHIP WITH OTHER GOVERNMENT ADVISORY COMMITTEES

8. The FAC was formed in November 1983, following the amalgamation of the Food Additives and Contaminants Committee and the Food Standards Committee. It forms part of a network of committees that advises Government on many different aspects of food. The maintenance of close links between these committees is vital to the Government's role in ensuring the continued safety of our food supply. The following paragraphs explain the FAC's relationship with some of these other committees.

### Committee of Toxicity of Chemicals in Food, Consumer Products and the Environment (COT)

9. The FAC works very closely with the COT (see paragraphs 2-4 of this Annex), a DH Committee whose members are appointed by the Government's Chief Medical Officer (CMO) and whose remit is to advise on the toxic risk to humans of a wide range of substances affecting everyday life. The Chairman of the COT, Professor Frank Woods, is also a member of the FAC. Part of the COT's role is to evaluate data submitted in support of requests for approval of new additives or uses as well as other relevant information and it then advises the FAC on their safety in use.

This role may, however, be partly subsumed by the SCF and by greater co-operation under the Scientific Co-operation Directive. The FAC takes full account of this advice in formulating its subsequent recommendations to Ministers. The FAC, in its role of risk assessment and risk management, therefore has to consider this safety advice in the context of actual and likely future intakes of the substance by UK consumers, in order to advise Ministers of any restrictions on food use which might be required.

**Advisory Committee on Novel Foods and Processes (ACNFP)**

**10.** The ACNFP is appointed to advise Health and Agriculture Ministers on matters relating to the manufacture of novel foods or foods produced by novel processes. The FAC, COT and the ACNFP work closely together at all times, such co-operation being illustrated by the way in which they continue to liaise over their considerations of different aspects of the application of genetic modification to food production. Professor Frank Woods, Chairman of the COT and a member of the FAC, is also a member of the ACNFP.

**Steering Group on Chemical Aspects of Food Surveillance (SGCAFS)**

**11.** The SGCAFS co-ordinates surveillance of the chemical safety, authenticity and nutritional value of the food supply. Much of its work is carried out through specialist working parties which cover the broad areas making up the Steering Group's current programme. All of this work is reported in Food Surveillance Papers which are published by HMSO. The FAC considers the papers in draft and then, in conjunction with advice from the COT, comments in the form of an FAC statement, which is normally published as an appendix. Mr Philip Strachan, a member of the FAC, is also a member of the SGCAFS. Following on from a recommendation in the Fundamental Expenditure Review of the Department's activities that the food committee structure should be rationalised where possible, it was decided that the SGCAFS should be disbanded by the end of 1995 and responsibility for oversight of the food surveillance programme passed to the FAC. The SGCAFS therefore met for the last time on 1 November.

**Advisory Committees on the Microbiological Safety of Food (ACMSF)**

**12.** The ACMSF advises Health and Agriculture Ministers on the risk to humans of micro-organisms which are used or occur in or on food and on matters relating to the microbiological safety of food. Ms Barbara Saunders, a member of the FAC, is also a member of the ACMSF.

**Advisory Committee on Pesticides (ACP)**

**13.** The ACP advises Ministers on any matters relating to the control of pests, including the regulatory control of pesticides. As the ACP takes into account any

likely residue of pesticides that may be left in finished food products, the FAC keeps in touch with the ACP's work.

**Committee on Medical Aspects of Food Policy (COMA)**

**14.** The COMA is a committee of experts chaired by the CMO. It provides the Government with independent advice on matters relating to nutrition, diet and health. Although COMA meets only twice a year, it operates through a system of sub-committees and expert panels set up to report to COMA on particular matters. Each sub-committee is chaired by a member of COMA. The FAC seeks the advice of COMA on specific nutritional matters.

**Nutrition Task Force (NTF)**

**15.** The Nutrition Task Force was set up by Ministers to draw up a programme of action to achieve the dietary targets in the Government's 1992 White Paper *The Health of the Nation*, and set in train its implementation. The programme *(Eat Well!)* was published in March 1994. The Task Force was disbanded at the end of 1995 having completed its remit. It was with members of this Task Force that the FAC set up a joint Working Group to advise on the current understanding of nutritional labelling (see paragraphs 18 and 19 of the main text).

## ANNEX II

### LIST OF FAC MEMBERS

Members of the Committee are appointed for their personal expertise and do not represent particular interests. In general they are drawn from areas of academia, the food industry, food law enforcement and consumer affairs.

### FAC MEMBERSHIP DURING 1995

| | |
|---|---|
| Professor Sir Colin Campbell (Chairman), LLB | Vice-Chancellor, University of Nottingham |
| Roger Manley (Deputy Chairman), OBE, FITSA | County Fair Trading and Advice Officer, Cheshire County Council |
| Professor Douglas Georgala ,CBE, PhD, FIFST (Member and Deputy Chairman until 31 October 1995) | Independent Scientific Consultant. Formerly Director Institute of Food Research |
| Margaret Ashwell, OBE, BSc, PhD, FIFST, FRSH (Until 31 October 1995) | Independent Scientific Consultant. Formerly Science Director, British Nutrition Foundation |
| Malvern Barnett, MChemA, CChem, FRSC, FIFST (From 1 November 1995) | Public Analyst and a partner in the analytical consultancy practice, Central Scientific Laboratories |
| Neville Craddock, MA (Cantab) (From 1 November 1995) | Group Regulatory and Environmental Affairs Manager, Nestlé UK Ltd |
| Dorothy Craig, MBE, JP, BSc (From 1 November 1995) | Member of the Executive Committee of the National Federation of Consumer Groups |
| Robin Evans, BSc, MChemA, CChem, FRSC, AIFST (Until 31 October 1995) | Public Analyst, Tayside Regional Council |
| Professor Catherine Geissler, BDS, MS, PhD (From 1 November 1995) | Professor of Nutrition, Department of Nutrition and Dietetics and Head of Division of Health Science, King's College, University of London |
| Joy Hardinge, BSc, FIFST | Head of Legislation (Flavours and Ingredients), Quest International |

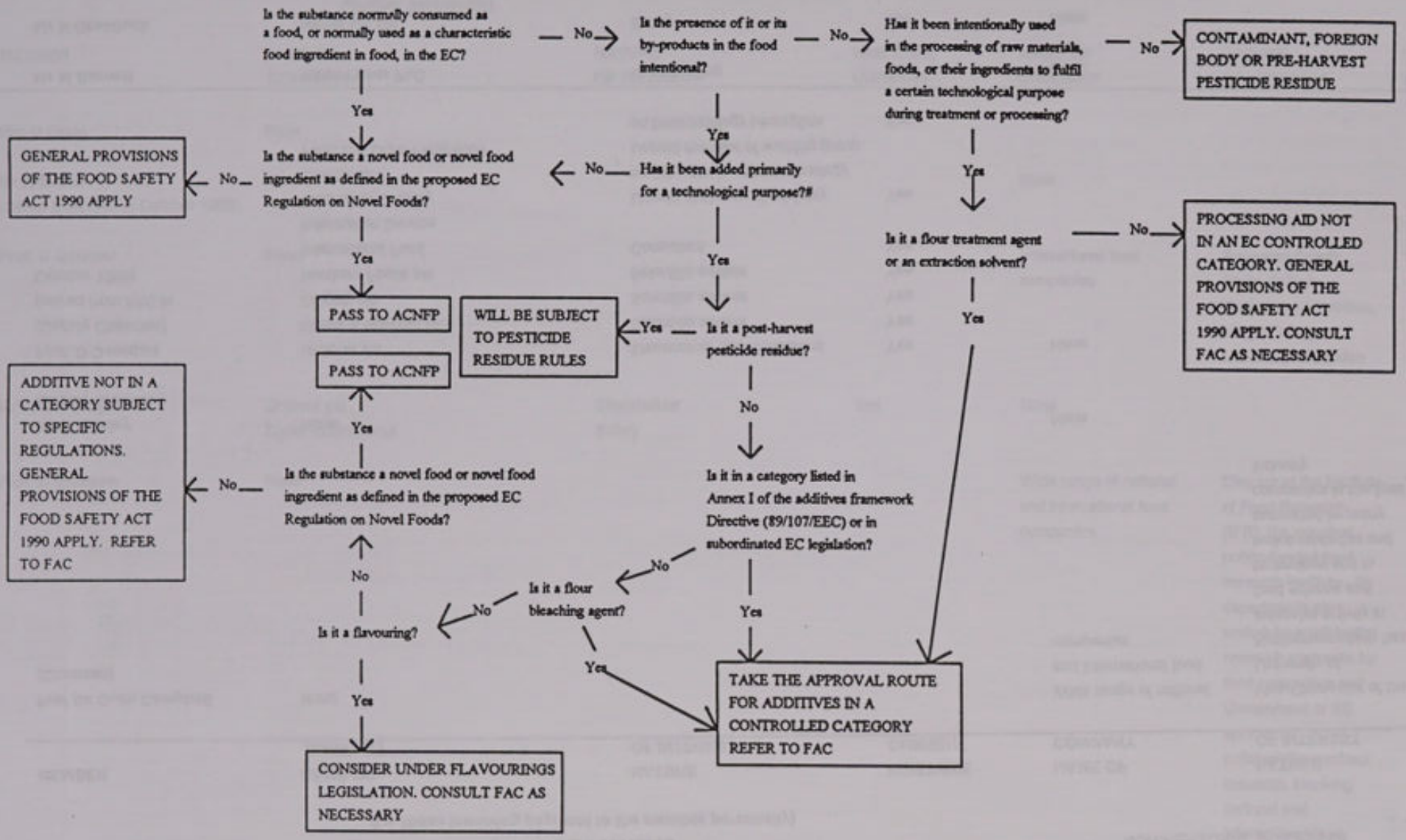
| | |
|---|---|
| Professor Alan Malcolm, MA, DPhil (From 1 November 1995) | Director of the Institute of Food Research |
| Patricia Mann, FCAM, FIPA, CMInst, FRSA (Until 31 October 1995) | Director of External Affairs, J Walter Thompson Company Ltd |
| Tom Martin, BSc, MIFST, FIBrew (Until 31 October 1995) | Technical Director, Carlsberg-Tetley Brewing Ltd |
| Tom Miller, BSc, FIFST, FRSH, MHCIMA | Director of Food Regulatory Affairs, Whitbread plc |
| Jill Moore, OBE (Until 31 October 1995) | Vice-President of the National Federation of Consumer Groups and Member of the Meat and Livestock Commission's Consumer Committee |
| Richard Pugh, BSc, PhD, CChem, FRSC, FIFST, FRSA | Director of Research and Development – Whitbread plc. Formerly Technical Director, Tesco Stores Ltd |
| Professor Christopher Ritson, BA (Econ), MAgr Sc | Professor of Agricultural Marketing and Dean of the Faculty of Agriculture and Biological Sciences, University of Newcastle-upon-Tyne |
| Barbara Saunders, BA | Freelance consultant on consumer policy |
| Professor Susan Shaw, MA (Cantab), FCIM (From 1 November 1995) | Deputy Principal and Professor of Marketing, University of Strathclyde |
| Philip Strachan, MA (Cantab), FIFST | External Technical Relations Adviser, Colman's of Norwich |
| Professor Frank Woods ,BSc, BM, BCh, DPhil, FFPM, Hon FFOM, FRCP, (Lond and Edin) | Head of the Department of Medicine and Pharmacology, Royal Hallamshire Hospital and Dean of the Faculty of Medicine, University of Sheffield |

**Officials of the Food Advisory Committee Secretariat**

| | |
|---|---|
| Secretary: | Barbara Richards |
| Scientific Secretary: | Julie Norman, BSc, DPhil, (Until 20 July 1995) |
| Administrative Assessor: | Robert McKinley (Until 31 March 1995) |
| Scientific Assessor: | John Sherlock, BSc, PhD, CChem, FRSC, FIFST (Until 20 July 1995) |
| MAFF Assessor: | Jon Bell, BSc, PhD, CChem, FRSC, (From 20 July 1995) |
| Department of Health Assessor: | Norman Lazarus, MB, BCh, BSc, PhD, FRCPath (Until 16 February 1995)<br>Frances Pollitt, MA (Cantab), Dip RCpath (From 16 February 1995) |
| Minutes Secretary: | Serena Cooke (Until 30 November 1995)<br>Jenny Scrutton (From 1 December 1995) |

ANNEX III

## DECISION TREE TO AID OFFICIALS IN DECIDING ON THE LEGAL STATUS AND EVALUATION ROUTE OF A "GREY" AREA SUBSTANCE




# Substances used primarily as fat replacers or dietary fibre are considered to be added for a nutritional purpose rather than a technological purpose

NOTE This Decision Tree is an informal guide intended to help MAFF officials in deciding on the referral route for new "grey area" substances proposed for use in food
It is not intended to be definitive. Applicants seeking clearance of a new substance are recommended to consult with officials regarding its status rather than rely on the Decision Tree

ANNEX IV

## REGISTER OF MEMBERS' INTERESTS

**MEMBERS HAVE DECLARED CURRENT PERSONAL AND NON-PERSONAL INTERESTS AS FOLLOWS (AS AT 31 DECEMBER 1995):**

| | PERSONAL INTERESTS (i.e. those involving payment to the member personally) | | | NON-PERSONAL INTERESTS | | |
|---|---|---|---|---|---|---|
| MEMBER | NAME OF COMPANY | NATURE OF INTEREST | WHETHER CURRENT | NAME OF COMPANY | NATURE OF INTEREST | WHETHER CURRENT |
| Prof Sir Colin Campbell (Chairman) | None | | | Wide range of national and international food companies | Vice-Chancellor of the University of Nottingham which has extensive activity in food science and technology and in topics related to and supported by many companies in the food industry | Yes |
| Mr R Manley (Deputy Chairman) | None | | | None | | |
| Prof. D Georgala (Deputy Chairman) (retired from FAC in October 1995) | Unilever plc | Shareholder and Consultant | Yes | None | | |
| | Marks & Spencer plc | Scientific adviser | Yes | | | |
| | Dalgety plc | Scientific adviser | Yes | | | |
| | Northern Foods plc | Scientific adviser | Yes | | | |
| | International Food Information Service | Consultant | Yes | | | |
| | Institute of Grocery Distribution | Unpaid chairman of advisory working group on biotechnology | Yes | | | |
| | Food and Drink Federation | Unpaid member of working group on biotechnology perception | Yes | | | |
| Mr M Barnett | Albert Fisher PLC | Shareholding | Yes | None | | |
| Mr N Craddock | Néstle UK Ltd | Salary | Yes | None | | |

| | PERSONAL INTERESTS (i.e. those involving payment to the member personally) | | | NON-PERSONAL INTERESTS | | |
|---|---|---|---|---|---|---|
| MEMBER | NAME OF COMPANY | NATURE OF INTEREST | WHETHER CURRENT | NAME OF COMPANY | NATURE OF INTEREST | WHETHER CURRENT |
| Mrs D Craig | None | | | | | |
| Mr R Evans (retired from FAC in October 1995) | None | | | None | | |
| Prof. C Geissler | None | | | International food companies | Research Grants Kings College Professor of Nutrition, King's College, University of London | Yes |
| Mrs J Hardinge | Unilever plc Quest International | Shareholder Salary | Yes | None | | |
| Prof. A Malcolm | None | | | Wide range of national and international food companies | Director of the Institute of Food Research (IFR), the principal public-funded food research institute. Its departments also undertake confidential research contracts for food companies and Government or EC sponsored collaborative contract research, involving national and international food companies on topics of food composition, quality, safety, dietary effects, and new | Yes |

| | PERSONAL INTERESTS (i.e. those involving payment to the member personally) | | | NON-PERSONAL INTERESTS | | |
|---|---|---|---|---|---|---|
| MEMBER | NAME OF COMPANY | NATURE OF INTEREST | WHETHER CURRENT | NAME OF COMPANY | NATURE OF INTEREST | WHETHER CURRENT |
| | | | | | technology. Industry-funded studentship and research training fellowships are also received by the Institute. | |
| **Miss P Mann**<br>(retired from FAC in October 1995) | J Walter Thompson Company Ltd | Consultancy | Yes | None | | |
| **Mr P A Martin**<br>(retired from FAC in October 1995) | Carlsberg-Tetley Brewing Ltd<br>Allied Domecq | Salary<br>Shares and share options | Yes<br>Yes | None | | |
| **Mr T W Miller** | Whitbread plc | Salary<br>Shares and share options | Yes<br>Yes | None | | |
| **Mrs J Moore**<br>(retired from FAC in October 1995) | None | | | None | | |
| **Dr R F Pugh** | Tesco PLC<br>Whitbread PLC | Shareholder & Share Options<br>Share Options | Yes<br>Yes | None | | |
| **Prof C Ritson** | None | | | | Dean of the Faculty of Agriculture and Biological Sciences of the University of Newcastle upon Tyne, which has extensive teaching and research interests in food related areas. | Yes |
| **Ms B Saunders** | J Sainsbury plc | Member of the Advisory Committee on Gene Technology | Yes | None | | |

| | PERSONAL INTERESTS (i.e. those involving payment to the member personally) | | | NON-PERSONAL INTERESTS | | |
|---|---|---|---|---|---|---|
| MEMBER | NAME OF COMPANY | NATURE OF INTEREST | WHETHER CURRENT | NAME OF COMPANY | NATURE OF INTEREST | WHETHER CURRENT |
| Prof. S Shaw | Food From Britain | Council Member | Yes | Wide range of national food companies. | Deputy Principal & Professor of Marketing at University of Strathclyde which has extensive teaching and research interests in food related areas. | Yes |
| | Biotechnology & Biological Sciences Council: | Member | Yes | | | |
| | Food Policy Directorate | Member | Yes | | | |
| | Innovative Manufacturing Initiative Steering Group | Minor Shareholding | Yes | | | |
| | Asda | Minor Shareholding | Yes | | | |
| | Cadbury Schweppes | Non-executive director | Yes | | | |
| | Scottish Soft Fruit | ends 31/12/95 | | | | |
| | Scottish Quality Food Certification Company Ltd | Non-executive director | Yes | | | |
| Mr P W Strachan | Britvic Soft Drinks | Salary | Yes | | | |
| | Reckitt & Colman | Shareholder | | | | |
| | Unilever | Shareholder | Yes | Sir Philip Reckitt Education Trust | Trustee | Yes |
| | Marks and Spencer | Minor shareholdings | Yes | BBRSC Food Directorate | Member | Yes |
| | Leatherhead Food Research Association | Unpaid member of the Executive Committee | Yes | | | |
| Prof H F Woods | Cadbury Schweppes<br>Edinburgh Investment Trust<br>Foreign & Colonial Investment Trust<br>Hanson<br>Smith and Nephew | Shareholder | Yes | Wide range of national and international food and chemical companies | Dean of the Faculty of Medicine, University of Sheffield, which has extensive activity in teaching and research in nutrition and toxicology and in topics related to and supported by many companies in the | Yes |

| | PERSONAL INTERESTS (i.e. those involving payment to the member personally) | | | NON-PERSONAL INTERESTS | | |
|---|---|---|---|---|---|---|
| MEMBER | NAME OF COMPANY | NATURE OF INTEREST | WHETHER CURRENT | NAME OF COMPANY | NATURE OF INTEREST | WHETHER CURRENT |
| | | | | | food and chemical industry. Trustee of the Hallamshire and Therapeutics Research Trust Ltd, Harry Bottom Charitable Trust, and Special Trustee for the former United Sheffield Hospitals. | |

## ANNEX V

## REFERENCES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4. The Labelling of Foods Produced Using Genetic Modification Techniques.

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6. Council Directive 89/107/EC of 21 December 1988 on the approximation of the laws of the Member States concerning food additives authorised for use in foodstuffs intended for human consumption. *Official Journal of the European Communities*, L40, 11 February 1989.

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9. Food Advisory Committee and Committee on Toxicity Review of Flour Treatment Agents - Azodicarbonamide (ADA). Letter to interested parties dated 10 May 1995.

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13. MAFF Food Surveillance Information Sheet No. 76. November 1995.

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16. Ministry of Agriculture, Fisheries and Food (1995). Authenticity of Soluble Coffee. *Food Surveillance Paper* No. 46, HMSO.

17. Food Advisory Committee (1991). Report of its Review of Food Labelling and Advertising 1990, FdAC/REP/10, HMSO.

## ANNEX VI

## LIST OF ABBREVIATIONS

| | |
|---|---|
| ACNFP | Advisory Committee on Novel Foods and Processes |
| ADI | Acceptable daily intake |
| ALARP | As-low-as-reasonably-practicable |
| COT | Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment |
| DH | Department of Health |
| EC | European Community |
| FAC | Food Advisory Committee |
| GM | Genetic Modification |
| MAFF | Ministry of Agriculture, Fisheries and Food |
| NTF | Nutrition Task Force |
| SCF | Scientific Committee for Food |
| SGCAFS | Steering Group on Chemical Aspects of Food Surveillance |
| TDI/TWI | Tolerable Daily Intake/Tolerable Weekly Intake |