

THE FOOD MAGAZINE

INCLUDING
CONSUMER
CHECKOUT

Issue 13 Volume 2 ♦ April/June 1991 ♦ £3.50

**SUGAR IN BABY
MILKS**

**SELLING AT THE
DOCTOR'S**

**FOOD HYGIENE
US-STYLE**

**THE NATION'S
FAVOURITE
FOODS**

**CHOOSING A
HEALTHY DIET**



**ORANGE JUICE
FRAUD — WE
NAME THE
BRANDS**

**DENTISTS
SLAM TV
ADVERTS**

**SMOKEY
BACON
SECRETS**

**GLOBAL FOOD
STANDARDS**

Into the mouths of babes

IS YOUR BABY AS WELL FED AS YOU THINK?

Cover illustration: Leo Elstob

THE FOOD COMMISSION

The Food Commission is your consumer watchdog on food. We are independent of the food industry and government and rely on subscriptions, donations and grants for our funding. We aim to provide independently researched information on the food we eat to ensure good quality food for all.

The Food Magazine is published quarterly by The Food Commission.

ISSN 0953-5047

© The Food Commission (UK) Ltd
88 Old Street, London EC1V 9AR
Tel: 071-253 9513
Fax: 071-608 1279

The Food Magazine Co-editors
Sue Dibb
Tim Lobstein

Information officer
Martine Drake

Researcher
Ian Tokelove

Subscriptions manager
Frances Smith

Designed by Artworkers,
402a St John Street, London EC1V 4NJ
Printed and dispatched by Spiderweb,
14-20 Sussex Way, London N7.

Retail distributor: Central Books,
99 Wallis Road, London E9 5LN
(081-986 4854)

**PUTTING FOOD
QUALITY FIRST**

SUBSCRIPTION RATES:

UK
£17.50 individuals
£35.00 organisations
Overseas (air mail)
£25 individuals
£40 organisations

Bulk orders: prices available on request

CONTENTS

NEWS

Baby milk	<i>EC directive allows high sugar levels</i>	2
Advertising	<i>Dentists criticise TV adverts watchdog</i>	3
Sugar ads	<i>ASA finds sugar ads 'mislead by omission'</i>	3
Genetics	<i>New proposals allow ownership of life forms</i>	4
Irradiation	<i>Army and prison services reject irradiation</i>	5
Food standards	<i>Are EC and world standards set too low?</i>	6
Cyclamates	<i>New evidence of toxicity</i>	6
Gum arabic	<i>International standards are too weak to prevent fraud</i>	7
Food hygiene	<i>Is training for US food workers a model for the UK?</i>	8
Party funds	<i>Food companies finance the Conservatives</i>	8

CONSUMER CHECKOUT SUPPLEMENT

Baby foods	<i>Special 5-page investigation: Are commercial baby foods all they claim to be?</i>	9-13
Off the shelf	<i>The trade secrets of bacon smoking</i>	14
	<i>Throwing light on green potatoes</i>	14
	<i>Pure orange juice fraud</i>	15
	<i>Britain's favourite foods</i>	16
	<i>What's inside children's lunch boxes</i>	16

HEALTHY EATING FEATURE

Exploding the myths	<i>US dietitian Jayne Hurley explodes the myths of balance, variety and moderation</i>	17
Barriers to healthy eating	<i>Professor Aubrey Sheiham looks at the difficulties we face in changing our eating habits</i>	18-19
Following doctors orders	<i>Food companies are giving advice in the doctors' surgeries</i>	20-21

REGULARS

Book reviews	22	Your queries	23	Marketplace	24-25
Letters	22	The Long View	23	What the Journals Say	26

SUPPORT THE FOOD COMMISSION

Become a supporter and help ensure that The Food Commission continues publishing vital information on food quality and safety. With your help we can make public our research and investigations and continue our campaign for safe, good quality food for all.

WE NEED YOUR HELP!

As a supporter you will receive free copies of The Food Magazine. Organisations are entitled to free bulk orders. And you will be listed as part of the network of The Food Commission.

To make your contribution please fill in this form and send off today to:

Frances Smith, The Food Commission, 88 Old Street, London EC1V 9AR

YES, I SUPPORT THE FOOD COMMISSION!

Name _____ Organisation (if applicable) _____

Address _____

Tel: _____

I/We enclose a supporter's donation £ _____

☐ Individuals/Small groups £25 minimum
(includes free subscription to The Food Magazine worth £17.50)

☐ Organisations £250 minimum*
(includes free subscription to The Food Magazine worth £35 and the opportunity to receive bulk copies free)

* This may be negotiated in cases of genuine hardship. Please phone us.

Diet and intelligence



Whatever you feel about children taking vitamin pills to improve their brainpower one theme comes shining through. For many children their present diet leaves much to be desired.

And it doesn't take much intelligence to see the reasons why. Children are bombarded with daily messages for sweets, soft drinks, fast foods and highly sugared cereals. Our own survey last year showed that less than ten per cent of TV food advertising to children would encourage healthy eating. Now dental health professionals are criticising the advertising watchdog bodies for 'glibly disregarding' informed medical opinion over the advertising of sweetened food and drinks to children. They want to see new restrictions placed on the advertising of such foods.

Eating habits start young. That is why it is so worrying to discover that even baby milks will be permitted to contain up to 50 per cent sugars by a new EC directive, far in excess of the sugar levels in breast milk.

And then there is baby food. Busy parents are offered an attractive array of jars, tins and boxes promising their baby will be happy and healthy. In our special Consumer Checkout report we take a detailed look at just what's in these baby foods and discover that your baby might not be getting all you think.

Added water and thickeners are used to bulk out the small amount of real ingredients. Many baby foods fail to meet the minimum protein and energy levels that doctors have recommended, and all failed to include the levels of meat or fish that on average parents expect.

At the very least, the labels on baby meals with meat in them should declare how much meat is actually there — just as tins of, say, soup or stew have to do. But baby foods are exempt from the meat labelling regulations. We asked the Ministry why, and they said it wouldn't be worth it because there was so little meat in the dish! This isn't good enough. Babies deserve the best possible quality food.

Across the country school meals are being axed as local authorities cutback on services and many children bring their own lunches. A new study of children's packed lunches (see page 16) finds crisps, chocolate and soft drinks feature strongly in lunch boxes. Pocket money food is poor dietary quality. Children themselves cannot change food policies. They may have the intelligence

but they haven't the means. Politicians have the means ... but have they the intelligence?

Making changes

For general advice on healthy eating, where better to go than a doctor? Surely doctors know what's good and what's bad. Yet, as we show on pages 20-21, GPs are not well-trained on dietary advice, and instead many of them rely on educational materials supplied by ... yes, the food companies.

Balance, variety and moderation have become the watchwords of healthy eating advice. Or do they stop us thinking clearly. American dietitian Jayne Hurley argues (on page 17) that these phrases are smokescreens which food manufacturers hide behind to avoid the tougher advice to cut down on fat, sugar and salt.

Nine out of ten people in Britain are still eating too much fat, and making healthy food choices remains difficult. On pages 18 and 19 Professor Aubrey Sheiham looks at the problems people face in changing to a healthier diet. Whether its the power of advertising, the lack of easily understood information or the cost of eating healthily — we need policies and action to make healthy choices easy choices.

Food fraud

The adulteration of leading brands of 'pure' orange juice with water and added sugars has left shoppers angry. Angry that manufacturers can get away with selling us inferior products with the government taking no legal action (see page 15).

As 1992 fast approaches we are becoming increasingly used to the concept of European food standards. But evidence suggests that in the rush to harmonise laws throughout the Community, food standards are being set to the lowest common denominator.

But even EC standards are likely to be overshadowed by the GATT proposals to liberalise world trade in foodstuffs. GATT is taking us into a new era of international food standards set by bodies that are heavily industry dominated. The case of the additive, gum arabic, on page 7, illustrates where weak international standards are perpetuating fraud and poor practice.

Gum arabic is just one of thousands of substances used in food processing. If international regulatory bodies cannot set adequate standards they will fail to protect consumers' interests and public health.

Sue Dibb & Tim Lobstien

EC will turn baby's milk to sugar

European Commission proposals will allow infant formula to contain 50 per cent sugars — and three-quarters of these can be tooth-damaging sucrose and glucose syrup.

According to the campaign group Action and Information on Sugars (AIS), product labels will not have to reveal sugar content and can even claim — if glucose syrup is used — that their baby drinks are 'sucrose free'.

The draft directive approved by the Council of Ministers in March allows a maximum of 14g/100kcal sugars and maltodextrins in formula milks and follow-on drinks. This is approximately half the content by weight, and half the energy the baby receives. Of these sugars, 25 per cent must be lactose (the only type of sugar found naturally in breast milk). But even this low level is reduced to 13 per cent for follow-on drinks. All the rest can be part sucrose (table sugar) and part — or entirely — glucose syrup.

Highly sweetened formula milks would, say AIS, violate the principle that formula milks should resemble breast

milk. They could also give a baby a liking for sweet foods and pose a threat to the baby's oral health. This breaches the EC directive's own requirement that such infant products 'shall not contain any substance in such quantity as to endanger the health of infants'.

The distinction between lactose and refined sugars such as sucrose and glucose is critical. The Department of Health's 1989 COMA report on sugar specifically noted that tooth decay 'is primarily related to the amount of non-milk extrinsic sugars in the diet and the frequency of their consumption'. The report added 'for infants and young children simple sugars (eg sucrose, glucose, fructose) should not be added to bottle feeds: sugared drinks should not be given in feeders where they may be in contact with the teeth for prolonged periods'.

Annex IV of the EC directive allows baby milk labels to say 'sucrose free' if no sucrose is present, even if glucose syrup or other sugars are present. 'Most mothers would probably purchase this product thinking it was safe for their children's teeth,' said AIS spokesman

Jack Winkler. 'In fact they may be buying a product which is potentially damaging.'

■ For more details contact Jack Winkler, Chair of AIS, 28 St Paul Street, London N1 7AB (071-226 1672).

THE SUGARS IN INFANT MILK PRODUCTS ON THE GENERAL UK MARKET:

Cow & Gate Premium	lactose
Cow & Gate Plus	lactose
Cow & Gate Formula S	glucose syrup
Farley Ostermilk	lactose
Farley Ostermilk 2	maltodextrin, lactose
Farley Ostersoy	glucose syrup
Farley Junior	lactose, maltodextrin
Milupa Aptamil	lactose
Milumil	lactose, amylose
Wyeth SMA Gold	lactose
SMA White	lactose
Wyeth Progress	lactose, maltodextrin
Wyeth Wysoy	glucose syrup, sucrose
Human breast milk	lactose

UNICEF criticises EC directive.

In an unprecedented attack on the European Commission, the prestigious UN children's body, UNICEF, has condemned the EC baby milk directive for failing to meet the bare minimum standards for protecting breastfeeding and controlling the marketing of commercial infant drinks.

Expressing disappointment and regret at the adoption of the Directive on March 15th, UNICEF's director-general James Grant called it 'a major retrogressive step, undermining the movement towards regaining a breast-feeding culture.'

The European Parliament voted for the adoption of the full UNICEF/WHO code, and on three occasions rejected the EC Directive. But on March 15th the Council of Ministers accepted the Directive, over-riding the European Parliament's views.

■ Full details from: Baby Milk Action, 23 St Andrew's Street, Cambridge CB2 3AX.

LOOK AFTER YOUR HEART, London 19/20 September 1991

This international conference is aimed at those working in coronary heart disease prevention at local level. It is jointly sponsored by The Health Education Authority, the Department of Health and the World Health Organisation and will include speakers from the US and Europe. Workshops include action with children and young people, working with the mass media and encouraging the commercial sector to promote healthy products.

Those interested in attending the conference or in presenting papers at a workshop should contact:

Judy Berry, Conference organiser, Health Education Authority, Hamilton House, Mabledon Place, London WC1H 9TX. Tel: 071-383 3833 Fax: 071-387 0550

New advice is half as sweet

New research from the World Health Organisation and the government's COMA panel advises we need to cut our sugar intake levels by about half.

The World Health Organisation report *Diet, Nutrition and the Prevention of Chronic Disease* sets acceptable ranges for all the major nutrients, including the target of 0-10 per cent of energy from refined sugars.

And as we go to press the government is about to publish its authoritative report, *Dietary Reference Values*. This sets recommended daily intakes for a comprehensive range of nutrients and vitamins, drawn up by the government's official nutrition advisory panel, The

Committee on the Medical Aspects of Food Policy (COMA). Some of these target intakes have existed before but an important new goal is that refined sugars should provide no more than 10 per cent of food energy.

At present it is estimated that refined sugars make up at least 15-20 per cent of energy input. To meet this new target UK consumers will need to reduce their sugar intake by about half.

Action & Information on Sugars will be translating this formal recommendation into practical language for dental health educators and dietary counsellors.

■ Contact Action & Information on Sugars, PO Box 459, London SE5 7QA



Enough sugar for the day in just one milkshake (18 sugar lumps)

ASA says sugar ads 'mislead by omission'

The Advertising Standards Authority, while rejecting complaints against the controversial sugar industry adverts, have admitted that the ads could 'mislead by omission'.

Complainants argued that the adverts sought to confuse between what the government's COMA Panel, in its report into Dietary Sugars and Human Disease (1989), described as intrinsic (natural) sugars, which do not damage health, and extrinsic (refined) sugars that do. The advert's implication that processed sugar was 'natural' misleadingly gave a 'healthy' image for the product.

But last autumn the IBA rejected the complaints for the TV adverts and in March this year the Advertising Standards Authority, which deals with complaints about poster, newspaper and magazine adverts, rejected similar complaints.

The ASA states: 'In our view the word "natural" implies nothing more than the fact that this product is not derived from a synthetic source. We do not consider that "natural" implies a health benefit or desirability associated with a product'.

This judgement is in stark contrast with the COMA report and the 1987 government Food Advisory Committee report which reported that the use of the word 'natural' could amount to a health claim.

While rejecting the complaints overall, the ASA did admit that in part the sugar adverts could, by their use of partial statements and selective comments, mislead by omission. Action and Information on Sugars are disappointed that the ASA appears to be acting under industry influence rather than on official COMA advice.

The controversy is likely to be fuelled further by new press advertising by the sugar industry due shortly. This, it is understood, will seek to undermine the well established association between sugar and dental decay.

Dentists slam TV advertising

Dental health professionals have criticised the TV adverts watchdog for 'glibly disregarding' informed medical opinion over the advertising of sweetened foods and drinks for children. By giving weight to the views of the food industry, the Independent Television Commission (ITC) has failed the public in its stated aim of being 'one of the country's official instruments of consumer protection', they say.

In November the Dietary Sugars Liaison Group (DSLGL) composed of members from the Health Education Authority, the British Dental Association, The British Association for the Study of Community Dentistry, the British Paedodontic Society and Action and Information on Sugars made a submission to the then IBA (now replaced by the ITC) calling for sweetened food and drinks only to be advertised as part of a meal — not as snacks between meals. The Health Education Authority, the British Medical and Dental Associations, the World Health Organisation and the Department of Health all accept the adverse dental effects of sugar. These effects are related both to the amount and frequency of consumption. Therefore, the

DSLGL argued, it can no longer be disputed that sugar can cause physical harm to children.

But in an astonishing exchange of correspondence between the IBA and the HEA, the IBA's Controller of Advertising Frank Willis, sought to doubt the validity of the Health Education Authority's conclusions. In a letter to its chair, Sir Donald Maitland, he described the DSLGL's submission as a 'highly radical suggestion'. The [DSLGL's] memorandum states that it was prepared by a number of people including representative members from the Health Education Authority. This may be taken by some people as implying that all aspects of the memorandum have been endorsed by the Health Education Authority. I rather hope that this is not the case since it seems to me that the Health Education Authority might wish to inform itself of any counter arguments before taking a firm position'.

In a curt reply, Sir Donald Maitland made it quite clear that the HEA was in full agreement with the proposal, and that its policy, jointly issued by themselves, the Department of Health and the Ministry of Agriculture, clearly recommended that 'the intake of sugary foods and drinks be limited to mealtimes'.

The IBA then took the unusual step of showing the DSLGL's memorandum to the Biscuit, Cake, Chocolate and Confectionery Alliance, whose members spend over £100 million a year advertising their products, and allowed them to submit a rebuttal. In December the Advertising Advisory Committee of the IBA rejected the DSLGL's proposals, without reference to any medical or dental advisor to the authority.

'How can an advisory committee adopt a view which is in stark conflict with that of the best informed bodies on health matters in the land?' asks Don Sarll for the DSLGL and a consultant Dental Public Health in the North-west. 'It would seem that the views of the Biscuit, Cake, Chocolate and Confectionery Alliance were given more weight than those of the HEA. It is difficult to square any of this with the Commission's claims to be one of the country's official instruments of consumer protection.'

■ A copy of the Dietary Sugars Liaison Group's Memorandum to the Advertising Advisory Committee of the Independent Broadcasting Authority is available from Don Sarll, Consultant in Dental Public Health, Salford & Trafford Health Authorities, 8th floor, Peel House, Albert Street, Eccles, Manchester M30 0NJ. Price £3.00 inc p&hp.

New code of practice fails to protect children

In its role as successor to the IBA, the ITC has issued a new Code of Advertising Standards and Practice which came into effect at the beginning of the year. Whilst it is very similar to the old IBA code there are some minor changes relating to food advertising. Health campaigners say these changes are largely unhelpful and potentially misleading.

The original code stated that 'advertisements shall not encourage persistent sweet eating throughout the day, nor the eating of sweet sticky food at bedtime'. This has been modified to: 'Advertisements must not encourage children to eat frequently throughout the day', and 'advertisements must not encourage children to consume food or drink (especially sweet, sticky

foods) near bedtime'.

The British Dental Association's suggestion that 'containing sugar' should replace 'especially sweet, sticky foods' was rejected. This leaves the way open for sweet drinks such as colas and drinking chocolate to be advertised as suitable bedtime drinks. Dental health professionals say there is no good reason why sugar-free food and drinks should not be consumed near bedtime, though the code now implies that there is something wrong with this.

The ITC also made a gross error in its stated intention to add a rider that it was acceptable to advertise food or drink (especially sweet, sticky food) near bedtime if 'it is clearly established that the teeth are to be cleaned afterwards'. It was

only when the British Dental Association pointed out that this was unsound advice, because tooth-brushing alone will not prevent tooth decay, that the ITC sought to contact its own dental advisor, Professor Emslie, and the rider was withdrawn.

Complaints about misleading health claims in food adverts have brought another change to the code. Claims of 'goodness' or 'wholesomeness' may imply that a food product or an ingredient has a greater nutritional or health benefit than is actually the case. Such claims are no longer acceptable, unless supported by sound medical evidence. The Food Commission will be monitoring adverts to see if the new code is effective in controlling such misleading claims.

Plants and animals under patent

A proposed EC directive will permit the patenting of plants and animals, thus raising a number of fundamental moral and ethical issues. Yet the directive has been drawn up without consulting farmers, breeders or consumers.

The Genetics Forum, along with a range of animal welfare, environmental and consumer groups, are concerned that patents could drastically increase the control large companies have over agriculture. They could also lead to the exploitation of the genetic resources of third world countries without compensation and result in higher prices and less choice for consumers.

The monopoly ownership of life raises serious questions — for example there is no exclusion in the directive on patenting of human genes or human cells. Those concerned about these issues would like to see an open public debate on the subject and are calling for a moratorium on the patenting of life until the interests of farmers, consumers and third world countries, and the effects of patenting on animal welfare and the environment, have been taken into account.

■ For more information: The Genetics Forum, 258 Pentonville Road, London N1 9JY.

St. George the Martyr, SOUTHWARK.

PREVENTION OF ADULTERATION OF FOOD AND DRINK, AND OF DRUGS ACT, 1872.

NOTICE.

THE ANALYST for this Parish, appointed by the Vestry under the above-named Act is Dr. JOHN MUTER, OF THE SOUTH LONDON SCHOOL OF CHEMISTRY AND PHARMACY, No. 231, Kennington Road, S.E.

THE INSPECTOR appointed by the Vestry under the Act is Mr. JOHN EDWARDS, Inspector of Nuisances, who attends at the Vestry Hall, in the Borough Road, at 11 o'clock in the Forenoon, to whom any application in relation to the above Act should then be made.

The London Borough of Southwark is the latest authority to make cuts in its food monitoring services. Its public analysts laboratories, founded in 1872, closed at the end of March

Microwave safety

The House of Commons Agriculture Select Committee has called for efforts to improve the safety of microwave ovens. Their investigation into microwave safety says that MAFF 'blundered' in its handling of the microwave safety report and claims that current international standards for microwave oven performance are inadequate.

The Committee recommends that MAFF should move quickly to introduce its own banding system for microwaves based on the ability of ovens to cook a range of foodstuffs satisfactorily. The Committee also called for greater uniformity in food labelling to ensure that food will be properly reheated. If food is unsuitable for microwave cooking, this

should be clearly stated and domestic ovens should be labelled as unsuitable for commercial use.

'MAFF must be prepared to be firm with those bodies in insisting on proper standards being achieved within a reasonable timescale. If heads need to be knocked together in the process, so be it', the report adds.

The report concludes that MAFF 'blundered' in 1989 by borrowing microwave ovens from manufacturers for research rather than buying them. This penny-pinching meant that MAFF could not publicly name those models which failed to reheat food thoroughly and caused unnecessary public alarm.

■ House of Commons Agriculture Committee Report: *Microwave Ovens*, February 1991, HMSO, £8.10.

Report calls for food hygiene improvements

The government advisory committee on the Microbiological Safety of Food published the second part of its investigation into food poisoning in January. As food poisoning levels continue to rise, the report is particularly scathing of some abattoir practices and in particular the levels of contamination in poultry.

As with the first report the Committee has made a wide range of detailed recommendations to reduce microbiological food poisoning risks, including improved data collection and a greater emphasis on training. It has repeated its earlier call for the licensing of all food premises, a proposal rejected by the government. The Committee is particularly unhappy that butchers would not need to be licensed.

In addition Sir Mark Richmond, chair of the Committee, told a press conference that the Committee was particularly disappointed with the government's response to their recommendations on education and training.

The committee had found no single cause of the increase in food poisoning and no single step which will miraculously improve the situation, he said. While no-one knew the true incidence, rising levels were not just due to an increase in reporting. Novel technologies such as cook-chill, changing lifestyles which demand convenience and a long shelf-life, and the growth of international travel had all contributed to the problem.

The Richmond Committee was set up in 1989 after the salmonella-in-eggs scandal forced the government to take further action over food poisoning. Its work will now be taken over by two new committees — an Advisory Committee and Steering Group on the Microbiological Safety of Food.

■ The Microbiological Safety of Food, Part II, Report of the Committee on the Microbiological Safety of Food, 1991, HMSO, £19.00.

■ For a report on The Microbiological Safety of Food, Part I see: *The Food Magazine* issue no 9, April 1990.

Missing labels on gene engineered food

The use of genetically modified organisms in food production has led the government to consider new labelling proposals for such products. A recent survey by MAFF on food labelling found that 23 per cent of shoppers wanted to see the use of genetically manipulated organisms (GMOs) shown on the food label.

MAFF clearly states that its guidelines are intended to meet moral and ethical concerns. Yet it proposes that labelling is only necessary if the presence or use of GMOs can be considered to 'materially alter' the nature of the food. Therefore foods which are nature identical but use GMOs in their processing would not

have to be labelled. For example, many people are opposed to the genetic engineering of animals, but meat or other products from such animals might not have to be labelled.

■ If you want to comment on the proposals, write to: The administrative secretary, Food Advisory Committee, Room 504C, Ministry of Agriculture, Ergon House, c/o Nobel House, 17 Smith Square, London SW1P 3JR.

Army rejects irradiated food

The armed forces will not be getting irradiated food as it will be more expensive, says the Ministry of Defence. Estimates show that irradiated food would be five to 15 pence a kilogram more expensive.

Meanwhile the Home Office has announced that prisoners will not be eating irradiated produce either. It is government policy that consumers should have a choice over irradiated food. Prisoners have no choice about what they eat so cannot be given irradiated food. Civil servants too will find irradiated produce off the menu — their catering organisation has a policy against irradiated food.

But Dr David Clark, Opposition

spokesperson on Food and Agriculture, has discovered that school children, elderly people in residential homes and hospital patients could find irradiated food on the menu. And he fears such customers may not have a choice. 'The government is relying on consumer choice, but will school children understand enough to make an informed decision?' he asks.

While food irradiation has been legal since January, irradiation plants have first to be licensed. Leading irradiation company, Isotron, are reported to be unhappy that their licence has yet to be granted. They already claim to have products waiting to be irradiated and expect to be given the go-ahead shortly.

There is concern that a loophole in the labelling of irradiated food will exclude products which contain irradiated ingredients. According to MAFF foods like pizza containing compound ingredients, such as spicy sausage with irradiated herbs and spices, would not have to carry the irradiation label — unless the compound ingredient was added at 25 per cent or above.

So despite John Gummer's claims that 'we're going to be very tough on that labelling and the people can make the choice', it is clear that current labelling regulations will offer no choice in the case of many products and prepared meals.

News in brief

Fishy business

As the EC continues to argue on how to preserve dwindling fish stocks, Fisheries Minister, David Curry, in a rare moment of frankness, has admitted to cooking the books:

'There is a conservation problem in the Irish Sea. That is an area, where frankly, in the past we have invented fish for political reasons'.

Salmonella problems persist

The Department of Health has repeated its advice not to eat raw eggs or uncooked food made from them. We are also advised to cook eggs until the yolk is firm for those people at greater risk; the elderly, pregnant women, babies and people who are ill.

This repeated warning came after figures were released that show salmonella food poisoning cases and the incidence of salmonella in poultry has continued to rise.

Cases of infection with Salmonella enteritidis page 4

Year	cases	% increase
1990	16,151	25%
1989	12,931	3%
1988	12,522	150%
1987	4,962	

The Public Health Laboratory Service said the figures showed that producers, customers and caterers should continue to take action to combat problems.

Organic future looks wholesome

The organic market is set to continue its unprecedented growth say market analysts Mintel. The overall market grew tenfold between 1985 and 1990 fuelled by trends in healthy living and interest in environmental issues. However the higher cost of organic foods could affect sales levels as the UK moves deeper into a recession.

■ Organic Food, Mintel Market Intelligence, February 1990.

Leaping the fourth hurdle

The question of how new animal growth hormones should be assessed is being hotly debated in Brussels. The debate began in 1988 when the EC banned growth hormones in beef production and has been brought to a head by BST — the genetically engineered milk-boosting hormone.

At the heart of the issue is whether there is a legitimate need for a fourth criterion to be added to the assessment process — the so-called 'fourth hurdle' — which would include a wider impact assessment of a new product. This would be in addition to the three criteria that already exist, namely safety, quality and efficacy (ie the safety of the drug on the animal and consumers, the quality of the end product and the assurance that the drug actually works).

The concept of the fourth hurdle is being vigorously promoted by EuroMP, Ken Collins, chairman of the European Parliament's Environment Committee. He argues that 'science' alone cannot be the sole criterion of

assessment and that we cannot ignore a new product's likely impact on society.

In the case of BST this means its assessment should include answers to broader questions. Where is the benefit to society? What need does BST satisfy and what effects could the use of BST have on income and employment in the livestock industry? What are the consequences for the environment and for developing countries?

He sees the 'fourth hurdle' as providing a procedure which would not only allay the concerns of consumers, but would bring benefits to industries developing such products by providing a greater degree of certainty about authorisation procedures.

The veterinary medicine and pharmaceutical industry remain hostile to what they see as unjustifiable consumer and political pressure. But the tide of opinion in Brussels is now shifting in favour of the concept. Commission officials contend that the fourth criterion already exists and that a formal framework should now be

established, rather than leaving such debates to unstructured ad hoc decisions. To that end the Commission has drafted a proposal for a Council Regulation which was published in January.

While BST has become a test case for the concept of the fourth hurdle, developments in biotechnology mean that the next ten years will see a rush of new products seeking clearance. PST, a pig growth hormone is anticipated soon; other experiments to alter and manipulate a pig's DNA and genetic makeup which could revolutionise pig farming, are in the pipeline. It is now possible to breed pigs without tails and with little or no eyesight or hearing. Scientists claim this would make the confined animal calmer and less prone to fighting.

As biotechnology developments open up these limitless options, which all raise fundamental ethical questions, society must develop ways of entering the debate. The 'fourth hurdle' principle is a powerful method of doing just that.

Who sets the standards?

Food safety standards are becoming increasingly international. But will these standards protect the consumer and public health? Sue Dibb investigates.

With 1992 just around the corner consumers are becoming used to the concept of European food standards by which our food is to be judged. Increasingly UK government food ministers say they can no longer act unilaterally, but must first persuade our European partners before we can see this additive restricted or that practice outlawed.

Europe may shortly be open for business, but evidence suggests that in the rush to harmonise laws throughout the Community, food standards are being set to the lowest common denominator. Any member who stands out for higher standards is automatically seen as creating a 'barrier to free trade' and is thus acting in breach of EC legislation.

Brussels is bursting at the seams with industry lobby groups wining and dining and having a quiet word here or there. Meanwhile, consumer bodies — underfunded, poorly organised on a European basis and barely represented on decision-making committees — remain the Cinderella of this pantomime.

But, as consumer bodies struggle to establish even a toe-hold in Europe, the spotlight is turning away from Europe to the Uruguay round of the General Agreement on Tariffs and Trade (GATT). GATT is taking us into a new era of international food standards that will have an enormous impact, overshadowing even those decisions taken in Brussels.

Assessing the winners and losers of a GATT agreement to liberalise world trade in foodstuffs is complex. Third world food security and the environment have largely been overshadowed in the debate by promises of greater competition and consumer choice (see *The Food Magazine* issue 12).

According to some consumer bodies GATT may bring benefits to consumers in developed countries and the economies of some under-developed countries. But — and this is a big but — only if liberalisation is not at the expense of lower food safety standards.

The main contention of many consumer groups worldwide is that more liberal food trade must be underpinned by a system of international standards

and rules which command full consumer confidence. The International Organisation of Consumer Unions (IOCU) has expressed serious reservations about many of the current and proposed arrangements for international food standards. IOCU argues that insufficient weight is being given to the concerns and needs of consumers, who are not adequately represented in decision-making procedures.

Bodies with such obscure names as the Codex Alimentarius Commission, the International Office of Epizootics and the International Plant Protection Convention, will be responsible for international standards on food and animal and plant health. The GATT secretariat is proposing that enormous powers should be given to these bodies but, as IOCU maintains, they are unrepresentative, secretive, exclude consumers and are likely to set standards too low to provide adequate consumer protection. The case of the inadequate specification for gum arabic (see page 7) underlines consumer concerns over international standards.

IOCU fears that GATT will undermine many existing agreed criteria for approving food chemicals. For example the EC Framework Directive on Additives requires consumer 'benefit' to be demonstrated when additives are approved. Assessments of 'benefit' or 'need' are sensible precautions because safety data on additives are often incomplete or difficult to interpret and labelling food with E numbers or names does not provide consumers with adequate protection.

Yet GATT's emphasis on 'safety' alone is likely to undermine these wider consumer protection principles. For example, the use of polyphosphates to add water to products such as poultry, ham and fish may be 'safe' but their use may have wider implications for consumers and could even facilitate legalised fraud.

IOCU is calling for a substantial reform of Codex so that its structure and decisions will be appropriate for its new role in the 1990s and beyond.

■ Consumer Participation in Setting International Standards is available from IOCU, Euromaststr. 9, 2586 EG The Hague, Netherlands

Cyclamate evidence not so sweet

New evidence has emerged that the EC may be setting food standards too low for consumer protection and public health. Whilst the EC's Scientific Committee for Food (SCF) is satisfied that the artificial sweetener, cyclamate is safe for use in food and drinks, UK toxicologists have confirmed that cyclamate can damage the testes in rats and possibly in men.

An EC directive which seeks to introduce uniform regulations to harmonise the laws on artificial and bulk sweeteners from 1992 will permit a wider use of sweeteners than many countries currently allow.

Cyclamate has been banned since 1970 in the UK, France and Portugal but is permitted in other EC countries. The proposed Directive would make any ban after 1992 a 'barrier to trade' and thus illegal. The EC's Scientific Committee for Food believes that cyclamate is safe and has set an

Acceptable Daily Intake (ADI) for cyclamate of 11 mg/kg body weight per day, allowing it to be used in a wide range of foods and soft drinks. But in its review of cyclamate the UK government's advisory committee on toxicity (COT), confirmed that cyclohexylamine, a metabolic breakdown product of cyclamate, causes irreversible testicular atrophy in rats. There is reason to believe that men would also be vulnerable. This research has not yet been considered by the SCF. The COT expressed particular concern that if cyclamates were permitted, they could be consumed in large quantities by children, particularly in soft drinks.

Taking the advice of his expert committee, Food Minister David Maclean announced in February that the current UK ban on the use of cyclamate should not be lifted. He will be asking the EC to consider the new

data. However unless UK ministers can convince the EC and its Scientific Committee for Food that their decision has not been made on the most up-to-date scientific results, cyclamate could well find its way onto our shelves.

Secretive

The EC's Scientific Committee for Food is a secretive body and the basis for its decisions is rarely made public. Therefore it is impossible for consumer groups to establish precisely what evidence and data they have considered, and what they may have ignored or overlooked. Furthermore it is known that the SCF is short staffed, under-funded and has a considerable backlog of work. And while members of the SCF are expected to declare their commercial interests to the committee chair, there is no public register of those interests, and no guarantee that full declarations are being made.



Sudanese gum arabic awaiting shipment. Weak specifications allow unscrupulous traders to adulterate this gum with cheaper, untested gums

An unscrupulous trade in gum arabic

Weak standards for gum arabic allow cheaper, untested gums in our food. Sue Dibb looks at the potential for fraud.

One of the roles of the WHO/FAO Joint Expert Committee on Food Additives (JECFA) is to develop specifications which should guarantee the identity and purity of an approved additive or food ingredient. Without rigorous specifications, unscrupulous traders can adulterate products, defraud their customers and potentially put consumers at risk from hazardous, non-approved substances.

Good specifications are therefore a key element in any food safety assurance system. However, The Food Commission has evidence of weaknesses in the specifications which allow adulterated products into the food chain.

Gum arabic (E414), is an emulsifier derived from *Acacia senegal* trees, used widely as an additive in soft drinks and other food products and as an ingredient in confectionery. While some of its uses have been replaced by a new generation of modified starches, gum arabic remains a major food additive. The development in Italy of 'low or reduced calorie' confectionery using gum arabic

as the principle ingredient is likely to lead to an increase in European demand

In 1982 JECFA and the EC's Scientific Committee for Food gave gum arabic the toxicological all-clear with the classification 'ADI not specified'. This meant that it was considered safe to use with no restrictions on its levels of use, save those required by the principles of Good Manufacturing Practice. However the specification set by JECFA in 1986 was, in chemical terms, meaningless because it could be met by gums from other, non-permitted, and non-tested botanical sources. Following complaints, that specification was revised last year by JECFA. But even that specification, though improved, is still too weak to ensure that gum arabic cannot be adulterated. Yet gum arabic trading companies now appear to have mounted an international campaign against this revised specification, even though it is too weak to prevent malpractice.

The blending or adulteration of gum arabic with non-permitted gums became such a well-established practice by traders that some of the major more quality-conscious food manufacturers have had to devise their own stringent in-house specifications to ensure the identity and purity of gum delivered under contract by suppliers.

Even though JECFA was aware of unscrupulous practices, it took five

years to publish a revised specification. But it still allows loopholes for adulteration by, for example, gum talha or other cheaper, inferior untested gums. In the competitive international market, the addition of about 10 per cent gum talha gives a mixture which satisfies the revised specification and leads to a price advantage of \$130 per tonne. This is a substantial temptation for companies that may be dealing in thousands of tonnes.

Because The Food Commission registered a strong protest in November 1990 against the weakness of the revised specification (see *The Food Magazine* issue 12) it has now received a dossier of all the comments sent to Codex Alimentarius by interested organisations. Perhaps not surprisingly the majority of comments originated from producing countries and organisations representing the views of gum importers and suppliers. The central theme of these submissions seems to suggest organised trade opposition to the revised specification. The main thrust was in favour of restoring the totally inadequate 1986 specification or at least a moratorium of three years to permit the possibility of a specification even more favourable to the gum traders. It is astonishing that the International Natural Gums Association for Research (INGAR) now claims that the specification of its own adopted Test Article (used for

toxicological testing and clearance for gum arabic nearly ten years ago) cannot be met today, although it falls well within the revised specification.

Many of these trade interests want to claim that African countries cannot produce gum arabic which meets the revised specifications. However this is not the case. Aid programmes to the Sudan financed by the World Bank and many countries have over the past 15 years planted *Acacia senegal* trees exclusively, in order to sustain the supply of good quality gum arabic. The Sudan has always produced around 85 per cent of world demand and claims that it could double production if necessary. So world supplies of gum which meet the revised specification should be assured. Recently too it was announced that the Danish government had given gum cleaning machinery to Sudan, which is now in use at Port Sudan. Further gifts have installed a gum quality control laboratory there. Of course these developments may only apply to top grades of Sudanese gum arabic. In the past these have been highly priced and hence non-competitive within the industry. The Sudan and other producing countries also sell much cheaper, poorer qualities of gum from other types of tree. Their cheapness makes them attractive to competitive industrial companies. Without doubt some companies will use them unless the specification is sufficiently strong to prevent their use.

The case of gum arabic illustrates the conflicts between commercial interests and consumer safety assurance. It would be contrary to all established regulatory food safety principles if the international authorities (CODEX and JECFA) now succumb to trade pressures to dilute or withdraw the revised specification.

Gum arabic is just one of thousands of substances used in food processing. If international regulatory bodies don't set adequate specifications they will fail in their function of protecting consumers' interests and public health. During the last 25 years they have required truly vast sums of money to be spent on safety testing — all of which was probably passed on to the consumer. So it is not too much to expect that standards are set which ensure this money has not been spent in vain.



Sudan produces 85 per cent of the world's gum arabic used in confectionery and soft drinks

Pressing need for food hygiene training

Training for food handlers should be compulsory says The Food Safety Act. But how this will work out in practice has yet to be determined. Diane McCrea looks at the options and reports on the situation in the USA where food handlers cannot work without hygiene certificates.

The Food Safety Act 1990 includes provisions for the training of those who handle food commercially. It comes as a surprise to many that food handlers are not, at the moment, actually required by law to be trained in any aspect of food hygiene. It is worth noting though that reputable companies often have their own training schemes teaching the rudiments of food hygiene. And there are several courses for the basic and advanced study of food hygiene.

However, legally, in the UK *anyone* can prepare food for sale without knowing the first thing about food

hygiene and how to prevent food poisoning. Given that food poisoning continues to rise every year this is indeed disturbing; the implementation of regulations requiring training for food handlers is urgent.

But who will be trained? How much will they need to know? What, when, how and where will they study food hygiene? What type of qualifications will be awarded? Who will pay for the training? Will there need to be refresher courses? There are as yet many unresolved questions.

Consultations on proposals have been taking place and draft regulations are expected later this summer. A further consultation stage will then take place before the eventual introduction of such regulations. It could still be several years before all food handlers are required, by law, to receive training in safe food hygiene practices.

Who will need training? The regulations may require training for those employed in all food businesses, in the manufacturing, wholesale, retail and catering sectors. Some food businesses



All food handlers should be trained – but by when?

could be classified as high risk, where highly perishable food is handled. Other businesses involve lower risks because of the type of food being handled, or whether it is packaged, where contamination would be less likely.

Would people working in these very different sectors all need the same training? Training would need to be specific to the particular work undertaken. But, it is surely sensible to ensure that every person working with food understands the basics of good food hygiene practices and is required, by law, to receive an elementary training course.

Comprehensive

During a recent visit to the USA, sponsored by the Winston Churchill Memorial Trust, I investigated the training of food handlers and the various legal requirements demanded by Federal, State and Country Regulations. The most comprehensive system I saw was in Washington State. Here, any person intending to work in a food business has to obtain a food workers permit, at their own expense, before taking up work. A test based on the Food Worker's Handbook had to be passed, even if the person only has a temporary job working for a few days at the State Fair. The scheme was self-financing and

made a considerable profit in the cities.

At the very minimum this commendable scheme ensured that all food workers were aware of the main points of food hygiene and the rules to prevent food poisoning. Training was also required for all managers of food businesses. In New York City food managers are required to attend a full week's training, and to pass a stringent test before they're registered. This scheme emphasised the manager's role in ensuring that good food hygiene practices were employed throughout and put responsibility firmly on his/her shoulders.

Training must be made a management priority. The Richmond Committee¹ has recognised this. All food businesses should be required to produce and implement a comprehensive training scheme of all their employees without delay.

Given the political will, regulations could be instrumental in requiring effective food hygiene training throughout the industry. Clearly the Government has made a general commitment to this in The Food Safety Act 1990. A comprehensive practical scheme which requires basic training for all food handlers, from managers right through to casual staff, in manufacturing, wholesale, retail, catering, schools and hospitals, public and private would now be welcomed. As the Consultation Document² states, 'Good standards of hygiene are equally important in all of these areas, and bad practices in any one of them could put public health at risk.' Public health has been at risk for far too long. It is imperative that the promise of earlier government statements on training are realised in the impending regulations. Their publication and implementation is eagerly awaited.

¹ The Microbiological Safety of Food, Part 11, Annex 11.1, HMSO 1991.

² Food Safety Bill, Food Training Consultation Document, Dept. of Health, December 1989.

■ Diane McCrea is Senior Lecturer in Nutrition and Food Policy at Middlesex Polytechnic and acknowledges support for research in this area from The Winston Churchill Memorial Trust.

Tories party to the food profits

The Conservative Party is far and away the main beneficiary of food company political donations. Recent figures from the Labour Research Department show over £1m going from food manufacturers' profits into Tory party coffers in the last three years. None, they found, went to the Labour Party.

In addition, food retailers and the big brewing companies are estimated to be supporting the Tories with similar amounts of cash.

Much of the profits of the larger Tory-supporting companies come from selling some of the least healthy components of the modern British diet: cakes, ice cream, biscuits, soft drinks, food additives, white bread and sugar.

■ Data: Labour Research Dept.

■ Research: Ian Tokelove

Food company donations to the Conservative Party

Company	Donations 1988-1990
Ranks Hovis McDougall	£80,000
George Weston Holdings	£350,000
Kelloggs Great Britain	£30,000
United Biscuits	£191,000
Allied Lyons	£299,100
Beecham/SmithKline Beecham	£60,000
Unigate	£50,000
Argyll Group	£30,000
McCain Foods	£500
Batleys	£5,000
William Jackson & Son	£5,000
TOTAL	£1,095,600

CONSUMER CHECKOUT

The Food Magazine's special supplement and guide to brand name products

INTO THE MOUTHS OF BABES

Commercial baby foods are not all they claim to be. Consumer Checkout investigates.

Do you buy your baby 50 — yes 50 — jars of baby food each week? It takes more than seven jars every day to give a nine-month baby its full daily calorie needs, on top of half a litre of fresh full-cream milk.

Why do babies need all this baby food? Because so much of it is added water.

Using starch, modified starch, cornflour, modified cornflour, rice flour and a range of other thickening agents, manufacturers are selling a small amount of real food blended with a large amount of thickened water.

In a special survey conducted by Consumer Checkout with additional research by Newcastle Polytechnic, we found the majority of commercial baby foods — both ready-to-eat foods in jars and tins, and just-add-water foods in box packs — were so diluted with added thickeners, bulking agents and water that they were failing to provide babies with the recommended levels of protein. A large proportion were failing to give enough calories. And many products failed on both protein and calories.

When it comes to giving a baby meat or fish, a jar of Farmhouse Lamb, a pack of Country Chicken or a tin of Beef and Vegetable



Dinner may reassure an anxious parent that they are giving something wholesome to their baby. But are they? Baby foods, are exempt from the general requirement that meat products should declare their minimum levels of meat. In the absence of such information, shoppers must assume that the companies will provide reasonable amounts of meat, as parents would do if they made the dish at home.

In two surveys, we found that shoppers and mothers expected an average 25-30 per cent meat in commercial meat dishes. But when researchers at Newcastle Polytechnic examined the products they found that, at the very best, only two out of 23 meat dishes contained more than 20 per cent meat.

And worse was to follow! Two beef dishes scored positive for chicken meat, although no mention of chicken was made on the label.

In summary, commercial baby foods turned out to be poor value for money and poor value for a baby's nutritional needs. Despite all the reassuring phrases printed on the labels of these products, parents would generally do better to puree their own food and give it to their babies.

Adding highly refined starches and dextrins to bulk out the food and thicken the excess water is not done for the baby's sake, nor for the parents'. It's done to serve commercial interests as a cost-cutting practice. A few companies have now dropped such practices — and increased the levels of real food by, they say, up to 25 per cent or more.

In this issue of Consumer Checkout we look at:

- Low quality of many commercial baby foods
- Pulpwash sold as orange juice
- Smoked bacon secrets
- Green potatoes
- Mickey Mouse food

Selling at a high premium, these baby foods could cost a parent over £20 per week, and if you want organic processed baby food the weekly bill could easily top £30. Yet average spending per person on food in the UK is under £15 per week, and Income Support benefit rates assume food spending levels of less than £5 per child per week.

Only an estimated one in three mothers offer their baby home-made foods regularly. For the sake of our children's health, commercial baby food standards need to be reviewed and the cost of good nutrition for babies reconsidered.

How well fed

Parents are offered a bewildering array of commercial baby foods in tins, jars and packets. Reading the labels you might well believe that the food on offer is the best a baby could ever expect. But should you chuck away your blender and masher and fill your shopping basket with these products? Consumer Checkout investigates.

Feeding babies is no small business. With a million babies in the UK aged four to 20 months, and increasing numbers of mothers returning to work while their babies are still young, convenience baby foods can be a blessing for a hard-pressed parent.

The market is booming. According to an OPCS survey of 5000 mothers, over 80 per cent of babies are fed commercial baby foods regularly. Less than 40 per cent of babies are regularly offered home-made baby foods.

This is good news for the baby food companies. Figures for 1989/90 show that Britain's babies slurped their way through a massive £89m-worth of commercially-made baby meals.

The current baby boom is expected to peak in the mid-1990s, so manufacturers have been anxious to develop their market as fast as possible. Cow & Gate threw £1.5m into the promotion of their range of Olvarit baby meals; Heinz — brand leader in ready-to-eat baby food — announced a £5m advertising campaign in 1990.

But does this enormous effort to influence parents and grab supermarket shelf space mean cutting corners when it comes to quality? Are parents getting their money's worth?

Reassuring labels

Manufacturers are well aware that parents worry over their baby's diet. How can an anxious mum be sure she is giving the right food, how will dad choose a product from the shelf...? The companies happily give you the answer:

'...carefully prepared using only pure ingredients and will help provide a nutritionally balanced diet...' (Heinz)

'...takes your baby healthily and happily through the day...using wholesome ingredients which help to provide your baby with a balanced and highly nutritious diet...containing essential protein,

vitamins and minerals.' (Farley's)

'Why Robinson's? * Allows a nutritionally balanced diet * Gives satisfying, wholesome nourishment * Contains high quality natural ingredients * Developed in accordance with latest nutritional opinion * Over 150 years experience in baby feeding' (Robinson's)

'...carefully made from specially selected wholesome ingredients, and can help to provide a nutritionally balanced diet for a baby...' (Cow & Gate)

But are these phrases justified? To say they can help or allow a healthy diet doesn't mean anything — you might just as well say Mars bars can help you slim (as, indeed, they did once claim).

On none of the baby meal packets and labels we examined, was there any indication that other foods, especially non-commercial foods, should also play a part in a baby's diet. There was no mention of offering babies any of the food you eat at home, or even ensuring babies got nutritious drinks (such as milk or formula) along with their food. Indeed, two companies give a strong impression that you need feed nothing else besides their products. Farley's offers four types of baby meal, Meal Timers, Breakfast Timers, Lunch Timers and Tea Timers, leaving — presumably — little need for any other food.

And Milupa claims their meals '...contain



Does your baby get enough? The content of these jars is just enough to feed a nine-month baby for the day, assuming the baby also drinks half a litre of fresh cows milk. That is 40 to 50 jars and tins a week, costing between £12 and £16.

is your baby?

The products that fail ESPGAN minimum nutrient levels

Products	Not enough Calories ①	Not enough Protein ②	Thickener/bulking agent present	Volume needed for 600 Calories per day	Cost per week ③
Heinz (3-15 and 7-15 months)	34 out of 54	2 out of 29	44 out of 54 starch/cornflour	7-8 tins or jars	£15.12
Robinson's (Junior & Dessert)	0 out of 15	0 out of 9	15 out of 15 maltodextrin	2 boxes	£15.26
Cow & Gate (Olvarit stage 2)	2 out of 8	0 out of 8	7 out of 8 flour/starch	4 jars	£14.30
Cow & Gate (Junior)	18 out of 24	3 out of 14	22 out of 24 cornflour	5-6 jars	£14.82
Milupa (3 months - 2 years)	0 out of 29	20 out of 23	25 out of 29 maltodextrin	1-2 boxes	£10.84
Farley Mealtimers	0 out of 15	5 out of 6	15 out of 15 maltodextrin	1 box	£ 9.03
Beechnut (Stage 3, veg, fruit & dessert only)	11 out of 14	3 out of 3	0 out of 14	5-6 jars	£20.67
Granose	2 out of 8	5 out of 5	0 out of 8	4-5 jars	£32.45
Johanus (Junior)	not declared*	not declared*	0 out of 5	not declared	probably £30.00

① Below 70 kcal/100g ② Below 4.2 g protein/100 kcal (savory dishes) ③ Estimated food purchase allowance for children under five in families on Income Support is £4.50 per week.

* By failing to declare energy and nutrient levels on their baby food labels these products break the Food Labelling Regulations. The same company has been criticised by the Advertising Standards Authority for issuing leaflets to shoppers encouraging the introduction of solid foods to babies of six weeks, and encouraging the addition of pureed food to bottle feeds. Both practices contradict Department of Health guidelines.

■ Source: manufacturer's data

properly balanced amounts of protein, fat and carbohydrate with added vitamins and minerals. So, whatever the meal or course, your baby is given all the nourishment needed for healthy development.' And again 'There are no extras to add.'

Standards

Consumer Checkout took a closer look at the quality of the baby meals being sold. We asked whether the baby foods sold to us today meet the recommended levels of nutrients given by the European Society for Paediatric Gastroenterology and Nutrition (ESPGAN)*.

The ESPGAN recommendations start by assuming that by the age of six months, not more than half

the energy a baby needs should come from weaning foods. This may gradually increase, but 'for the remainder of the first year breast milk, formula or equivalent dairy products should be given in a quantity of not less than 500ml daily.'

So we took a typical 8-10 month baby and assumed he/she would be getting 500ml of fresh whole cow's milk each day. How much food would they then need?

ESPGAN makes several specific recommendations regarding baby food nutrients. Firstly it suggests a minimum of 70 kcal (Calories) for every 100g of baby food, to ensure babies get enough energy. Typically, babies of that age need between

850 and 1000 kcal per day, and with the milk giving them 320-340 kcal, the remaining food should supply around 600 kcal.

Secondly it recommends at least 6.5 grams of protein for every 100 kcal in foods that are assumed to be rich in protein — meat and fish dishes which parents would assume needed extra vegetables, rice and potatoes etc; or 4.2 grams protein per 100 kcal for dishes that parents would assume were 'complete' meals.

ESPGAN also recommends that meat and fish dishes should have a minimum of 40 per cent meat or fish, while complete meals based on meat and fish should be at least 20 per cent actual meat or fish.

FIRST FOOD FOLLY

Pureed vegetables or fruit can be used for a baby's first taste of food. Try sieved potato. Or sweet potato. Or pureed apple.

What you don't need to do is go out and buy a packet of commercial baby rice. For a start it is very expensive. Compared with a pound weight of regular rice for, say, 45p, Farley's Farex Baby Rice Cereal will cost you £2.64 per pound. Milupa Baby Rice costs £2.99 per pound. Robinson's Baby Rice is a colossal £4.50 per pound.

But worse, it may not be rice. Milupa's is, being just ready-cooked rice flakes. Farex is

two-thirds rice flour, with soya flour, cornflour, chalk, yeast and some vitamins.

Robinson's Baby Rice ('Now With Milk') is something else. It not only contains milk powders, yeast and supplementary minerals and vitamins, but also maltodextrin, sugar and vanilla flavouring!

And on the same pack Robinson's boasts that their products are 'prepared for babies' taste buds' and 'developed in accordance with the latest medical opinion'. Seemingly this excludes the Health Education Authority, who advise against adding extra sugar to baby foods, and if using tins or packets suggest you 'look for the ones without added sugar'.

Doctor's dilemma

There is some concern that doctors, particularly those specialising in children, may be inhibited about criticising the baby food and baby milk manufacturers.

The most authoritative grouping, The British Paediatric Association, has come under increasing criticism for its apparent support for baby products. It has now been revealed that the BPA's annual conference, held in April, is sponsored by Cow & Gate. And Nestlé, subject of an international boycott for their breaking of the Baby Milk Marketing Code, provides the coffee.

How well fed is your baby?

Under scrutiny

How did the commercial baby foods match up to the recommended nutritional levels? We looked at several leading brands of ready-to-serve meals in tins and jars and several just-add-water instant mixes. We looked at their Calorie content and their protein content compared with ESPGAN recommendations. Then we looked at how many of these products contained thickening agents, and how much of the product people would need to buy if their baby relied on just eating commercial baby food (assuming the baby would also be getting 500ml of whole cows milk). And if a baby is to rely on these commercial foods, we asked how much it would cost a parent to feed their baby for a week.

Lastly we collaborated with researchers at Newcastle Polytechnic to assess the maximum meat levels in a sample of meat-based products. And we

checked a few products to see whether the meat that manufacturers claimed was actually there.

We looked at 172 commercial baby food products sold as suitable for older babies, say 8-10 months. For the dry foods we assumed that the food had been made up according to the packet instructions.

From the table it can be seen that, of the 172 products we examined, 68 (40 per cent) failed to put enough calories in the dish. And we found that 38 out of 97 (39 per cent) of the savoury dishes failed to supply enough protein.

We were surprised to find so many products failing to meet minimum nutrient levels. Why did they contain so little food?

The answer is the food technologists' oldest trick: added water and thickening agents. The ESPGAN report notes 'Despite the fact that the commercial preparations may not appear very liquid (due to the addition of thickening agents) their total water content is often higher than their counterpart home food...'

These products turn water into 'food' by the addition of thickening agents: typically cornflour, modified cornflour, starch, modified starch, other flours, as well as thickening vegetables such as potato flour and tomato puree. A similar trick is used by the dry food makers, who bulk out their product with sugars or maltodextrin — a powder starch — which add very little nourishment but help fill up the pack and bulk out the food.

Solid water

The trouble with added water is that babies have to eat more of the product to get their recommended energy and protein, as well as other essential nutrients. The thickeners may add extra calories but they add little protein and no other significant nutrients.

The problem faced by a baby food manufacturer is this: do they use low-cost ingredients which more or less satisfy the basic energy needs of a baby and then add in some vitamins and minerals to supplement the poor quality of the food; or do they use higher-cost ingredients and find they cannot compete on the supermarket shelf?

In looking at the different branded products, we estimated the amount of the product that a typical 8-10 month baby would need to eat to get its daily calories — 600 kcal assuming the baby also has 500ml of fresh whole milk. We also took a look at the cost to the parents of buying this amount of food for their baby.

Typically parents would have to buy £10-16 worth of baby food each week. This is nearly 40 jars of the larger Cow & Gate stage 2 size, or over 50 of the smaller Heinz jars and tins.

And, we should add, this assumes that all the food is eaten and none wasted — a rare occurrence!

Missing meat

In a collaborative study carried out with researchers at Newcastle Polytechnic, we analysed a range of savoury baby foods based on meat to find out how much was actually present.

Meat and fish content is recommended by ESPGAN to be no less than 40 per cent of 'mainly meat and fish dishes' and no less than 20 per cent of 'complete meals'. When we analysed the products we gave the companies the benefit of the doubt by assuming that all the protein in the product came from lean meat of the sort shown on the label, and none from the soya flour, milk powder and other protein foods which might also be present.

Despite these allowances in favour of the commercial products, we were greatly disappointed. Only two of the 23 products tested passed the bare minimum 20 per cent meat content level. Most fell in the range 10-16 per cent meat.

The meat in your baby's dinner

Product	Maximum meat present
Heinz Braised Chicken Turkey Dinner	13.5%
Baked Beans and Bacon	3.9%
Beef and Carrot Casserole	5.7%
Braised Lamb Dinner	19.7%
Spaghetti Bolognese	12.6%
Braised Steak Dinner	10.5%
Robinsons Beef Casserole & Vegetables	15.3%
Chicken Casserole & Vegetables	22.1%*
Cow & Gate Chicken Dinner	25.1%*
Beef Dinner	14.6%
Lamb Dinner	15.8%
Chicken Risotto	15.4%
Spaghetti Bolognese	17.6%
Milupa Farm Beef & Veg Casserole	16.3%
Braised Steak & Vegetables	18.8%*
Golden Chicken & Vegetables	15.7%*
Country Chicken & Vegetables	15.1%*
Boots Lamb and Veg Casserole	16.7%*
Chicken & Tomato	12.4%
Beef Casserole	13.7%
Veg & Beef Dinner	11.9%
Farm Chicken Casserole	13.5%*
	19.4%*

* Estimated from dry food values at a ratio one part powder, three parts water, as suggested on the packs.

■ Source: Newcastle Polytechnic/Food Commission

We were also concerned that other species of animal may be present instead of, or in addition to, the one named on the label. Poultry meat, for example, tends to be cheaper than beef, and in non-baby foods other species are permitted besides the one featured in the product name — e.g. pork is allowed in beef burgers, beef or turkey in pork sausages, and so on.

Chicken surprise

Newcastle Polytechnic researchers tested five chicken-based meals and two beef-based meals for

PARENTS' EXPECTATIONS

Manufacturers sometimes hide behind such phrases as 'We only sell people what they ask for. If parents don't like our products they needn't buy them.' Or perhaps even: 'Parents don't expect pure beef in a Baby Beef Dinner. They know it isn't pure meat.'

So Consumer Checkout conducted a survey to see what shoppers expected when they picked up a baby dinner. We showed 40 shoppers (sampled at four different shops) a jar of Heinz Braised Steak Dinner and a packet of dry Milupa Steak and Tomato Special and asked them how much meat they would expect in a product like this, made up ready to eat.

How much real meat do you expect?

	Average	Range
Heinz Braised Steak Dinner	26%	2% – over 50%
Milupa Steak and Tomato Special	26%	1% – over 50%

In a second study of 30 mothers attending baby clinics in Northumberland, a similar result was found: mothers expected meat dishes to contain on average around 30 per cent meat. These mothers went on to say they were aware that there was probably not much meat and concerned that there may be few vegetables, too.

The US company Beechnut, which has a limited range of products available in the UK, has gained much creditable publicity in the USA for removing fillers and thickeners from their products. Their re-formulation has meant that up to 25 per cent more fruit and vegetables are used in their products than previously.

Perhaps UK companies would like to follow suit.

the presence of chicken meat, using enzymatic species identification tests. The method cannot indicate the quantities of chicken present but is considered a reliable method for finding out if chicken is present or not. To double check we re-tested each product.

Happily, all the chicken dishes tested positive — they all contained chicken. But so did both the beef dishes: Robinsons Beef Casserole and Boots Vegetable and Beef Dinner. Neither product admitted to chicken in the ingredient list but both samples of both dinners scored positive for chicken. The manufacturers assured us this was impossible and have promised to make tests of their own. We shall bring you their results when they report them.

Quality assurance

Manufacturers insist that they are using only the best ingredients for their products. They continually put out reassuring literature and publicity to encourage us to trust them.

But in this survey we found repeatedly that the quality is poor and not what parents have a right to expect. The products are often low in calories. They are also often low in protein. They are short of recommended levels of meat. And the meat may not be all you think it is.

Since 1986 all meat products have had to declare the amount of meat they contain. A can of beef stew or a pork pie will show, somewhere on the label, a Minimum Meat declaration, such as 'Not less than 30% meat'. But the 1986 regulations made an exception for baby foods. When we asked the Ministry of Agriculture why baby foods were exempt, they said the only reason they knew of was 'the amounts of meat in the food are too small to be worth declaring'!

This is all very unsatisfactory. Parents have a right to know:

- how much meat is in their baby's meat dish
- what animal species may be present besides the one declared
- whether mechanically recovered meat is present
- what parts of the animal may have been used
- that products meet good nutrition standards.

Confidence in commercial babyfoods took a knock when tampered jars were found with bits of glass in them. Although accused of being slow, when the companies did act they made it clear they were serious about ensuring their products were tamper-proof.

Let them now take seriously the urgent need to improve their formulations and the quality of the ingredients they are selling to us and to our children.

IT'S NOT SO DIFFICULT!

Making baby food from your own meals is not so difficult, and helps the baby learn about real family food. Blend, mash or puree — the old-fashioned Mouli is good for smallish amounts. But the back of a fork will do! Serve on a teaspoon. Don't add salt.

If you want to make foods just for your baby then there are plenty of recipe books around. Go for the highly nutritious foods like smooth

peanut butter, frozen peas, tuna and banana. Plain yogurt mixed with mashed fruit is good. See if your baby likes mashed pasta and mashed baked beans.

Make extra amounts and freeze the surplus. For perfect portion control you can use ice-cube trays.

There is plenty of help and advice you can get from books, from other parents, from health visitors and baby clinics. Ask for the Health Education Authority's new leaflet 'From Milk To Mixed Feeding'.

HVP – The disappearing trick

Manufacturers face a dilemma. If their food is over-diluted with thickeners and water then it can taste rather bland. A baby can't complain, but parents have a habit of tasting baby food, for example to check its temperature. And very bland food might make parents suspect there is too much water present.

A pinch of salt might be the answer, although manufacturers are aware of the need to limit the sodium in their products. Herbs and strongly-flavoured ingredients such as tomato paste could be used, but these are expensive. So there is a temptation to add some commercial flavouring agents and flavour boosters into the baby food, of a sort you would rarely use at home. Certain flavour enhancers such as monosodium glutamate are not allowed, but another type of flavour booster, hydrolysed vegetable protein, is permitted. It has been very popular with baby food makers.

Hydrolysed vegetable protein (HVP) is a processed food concentrate somewhat like yeast extract. You can find it added to Farley's and Robinson's. But Cow & Gate are removing it. And Heinz did so over a year ago.

HVP is largely a mixture of amino acids. Studies on infant animals have shown that imbalances of amino acids may be linked to brain damage so

Washington University scientists have suggested banning amino acid additives from all foods, in case babies should be offered some to eat.

According to US researchers, HVP contains dicarboxylic amino acid, part of a protein that affects the body's growth, and expert advice has been given to the US Food and Drugs Administration expressing concern over babies' consumption levels, and suggesting that research should be undertaken on the levels of this chemical found in baby foods. Furthermore, HVP can contain monosodium glutamate, which itself is banned from baby foods.

HVP is not a good way to feed babies. It is used to reassure parents there is more flavour than the meat alone could give. It is not necessary and should never have been used in the first place.



Heinz quietly dropped Hydrolysed Vegetable Protein as part of their 'on-going strategy to use only natural products where possible'.

■ Written and researched by Tim Lobstein

■ Additional research: Helen Smith

*ESPGAN Committee on Nutrition Guidelines on infant nutrition II and III, *Acta Paediatrica Scandinavica* 287 (1981) and 302 (1982)

Consumer Checkout takes a look behind the scenes to answer readers' questions about food

Throwing light on potatoes

Do supermarket lights make potatoes go green?

Yes. The fluorescent lights used in many supermarkets are particularly effective in encouraging potatoes to turn green (better even than daylight). Under such light a typical potato will show signs of greening within a day or two.

Green, sprouting potatoes should be avoided because along with the green colouring caused by harmless chlorophyll a toxic substance known as solanin is produced. Solanin is a steroid-based saponin-like glycoalkaloid structure that can produce discomfort and damage to the gastro-intestinal tract. The exact neurochemical effects of the compound remain to be established, but it should particularly be avoided during pregnancy, as it carries an increased risk of spina bifida. Although most shoppers know to avoid potatoes that have greened according to the Potato Marketing Board, a surprisingly large number of consumers still suffer from the effects of eating them by accident.

Potatoes in loose, open display are more at risk than

packaged potatoes, but the usual plastic packaging will not stop the potatoes greening – although it might make it harder for the shopper to notice!

A good supermarket should rotate potato stock and have a fast turnover, so potatoes won't be left on display for more than a day or two. But problems can arise with the free-flow displays favoured by many supermarkets, where the shopper selects the potatoes themselves, leaving any they don't like. If staff don't rotate the stock regularly, old potatoes will be on sale to the public, and may be mistakenly purchased.

Irradiation of potatoes (now permitted in the UK) can prevent them from greening and sprouting but does not halt the production of solanin. Irradiation means apparently fresh potatoes could in fact be quite old and contain significant amounts of solanin.

If a potato is only faintly green, peeling should suffice to remove the solanin. If the colour is deeper then solanin will be present throughout the potato making it inedible.



Supermarket self-serve potatoes are at greatest risk of turning green and becoming inedible

PHOTO: SUPERMARKETING

Smoking out the bacon

Has smoked bacon really been smoked?

Not necessarily. There are two principle methods of producing smoked bacon after the flesh has been cured in brine. One is the 'traditional' process of exposing carcasses to wood smoke, the other is a modern method whereby the smoke flavour is applied to the bacon as a liquid solution.

Smoking meat is a very ancient method of preservation which originated with the practice of hanging meats in a chimney or fireplace to dry out. The evaporation of water from the meat (resulting in a 5-6% weight loss using modern methods) has a preservative effect – as does the smoke itself (phenolic compound acids kill certain harmful bacteria, and the smoke also has an anti-oxidant action on the fat contained in the meat). The smoke also gives the meat a strong flavour.

These days the 'traditional' method involves smoking carcasses on racks in large ovens with fans to blow in the smoke (produced by burning various woods – oak, deal, beech and hickory – no additives

can be added). The smoke may be purified by electrostatic precipitation or a water spray, to remove any (low-risk) carcinogenic benzpyrenes and related tarry substances that might otherwise adhere to the meat. Some modern methods incorporate a five minute 'steaming' phase into the process, in which heat and humidity acting together enrich the colour of pigments produced by the smoking (the rind of smoked bacon, if boiled, blackens by the same process).

However, much 'smoked' bacon is produced these days using smoke solutions rather than real smoke. These solutions are generally prepared from concentrates that are specifically manufactured in laboratories, using either natural gaseous smoke concentrated into a liquid form or synthetic flavouring agents, available in different wood flavours. This liquid smoke is then normally applied to the bacon as a positively charged mist or spray, which sticks to the bacon that has been given a

corresponding negative electrical charge, forming a lacquer on its surface.

The use of liquid smoke avoids much of the weight-loss by evaporation inherent in traditional smoking practices. The modern method allows as much as 10 per cent more water content than the traditional method, and is one of the reasons why modern bacon doesn't sizzle in the pan but bubbles instead.

Unlike traditional smoking, the spray-on liquid smoke method has no preservative effect on the bacon. In fact the application of moisture to the prepared bacon would actually reduce its keeping qualities if it wasn't for the use of nitrites (E249 and E250) or nitrates (E251 and E252) in the curing brine that act as preservatives, as well as adding flavour and preventing the bacon looking grey.

The bacon can also be treated with smoke solution by incorporating the solution into the curing brine (along with the nitrites and nitrates) or by dipping the carcass into a smoke solution, but these are less common practices.

The only way the consumer can tell which type of smoking has been used is if the label describes the bacon as 'traditionally' smoked, in which case real smoke should have been used. Otherwise the shopper cannot tell.

■ For more facts on bacon see Ask Uncle Bob on page 23.

Orange juice fraud

We checkout the fraudulent fruit juice brands

Thanks to an unusually detailed report from the Ministry of Agriculture, Consumer Checkout is able to bring you brand-by-brand details of the latest fraud in the soft-drinks market — the practice of adding sugar and pulpwash to a drink being sold as pure orange juice.

Most orange juice is concentrated where it is pressed (eg in Brazil where a lot of our juice comes from), transported in tankers to the UK and reconstituted with water before bottling or packaging. There is always a temptation to add a little extra water.

The problem with adding extra water is that this makes the drink taste weak — so extra acids, sugars (such as beet sugar and corn syrup) and flavourings need to be put in. MAFF took a look at these possibilities, starting with sugar. Food regulations allow up to 1.5 per cent sugar to be added (to compensate, they say, for very sour oranges). Above this, companies have to call the juice 'sweetened'. But a highly diluted juice may need more than that 1.5 per cent 'pinch' of sugar. Do they then label it as sweetened? As MAFF found, many do not.

Sainsbury's Jaffa Orange Juice was the worst of the Ministry's bunch, with over a third of the sugar in the juice coming from sugar-beet. Safeway's and Supreme orange juice also scored badly.

Another trick is to add a bit of extra flavour in with the water. Juice makers have developed the habit of soaking their left-over squeezed oranges in water and then giving them another good squeeze. What you get is orange-flavoured water, which is legally not

juice at all. The trade call it pulpwash.

Pulpwash was present in ten of the Ministry's 21 samples. Express Pure Orange Juice was the worst, with 43 per cent pulpwash, followed by Safeway's, Sainsbury's, Assis and Boot's, all of them containing one third or more pulpwash.

Lastly you can add some fruit acids, to offset the added sugar. Several manufacturers used these, only they used apple acids (malic acid) instead of citric acid. Of 17 samples tested, ten had malic acid in the orange juice.

In the USA a federal grand jury found a brand of orange juice to be fraudulently sold, as it contained beet sugar, corn syrup, pulpwash and various additives. The directors of the Chicago-based company faced possible sentences of 57 years imprisonment and fines of over \$4m each.

As to our own fraudsters, the Ministry is planning no prosecutions. 'I expect that all firms marketing orange juice will now put in hand the necessary steps to check their supplies,' said Agriculture Minister John Gummer.

When hi-juice means lo-juice

Some brands of orange juice drink like to promote themselves as having a lot of 'extra juice' in them. Beware. The juice probably falls well below the level you would expect.

Juice drinks (not the pure juices, note, but the ones with the word 'drink' in the title) are allowed to contain as little as five per cent juice, the rest of the carton being made up with water, sugar, and possibly additives such as colourings and thickeners to stop the mix looking too thin and watery.

Some drinks have more than five per cent. A survey by *The Food Magazine* in 1989 found the highest juice levels in brands such as Del Monte and Five Alive, with juice levels averaging 40-60 per cent. Similarly, Britvic 55 has — yes! — 55 per cent juice. If you really don't want pure juice and want a high-juice, sweetened blend, then these brands offer the higher juice levels.

By comparison, various so-called hi-juice products can have much less than this. Sainsbury's high-juice had under 20 per cent juice.

And while Sun Pride high-juice orange was just 20 per cent juice, a product marketed specifically for children, Thomas the Tank Engine Hi-Juice, had around 15 per cent juice. These drinks cost as much as pure juice but are nutritionally little better than dilute squash.

Food sampling cuts

We do very little food sampling in this country — less than one sample for every £1m spent by shoppers on food, equivalent to just over one sample for every thousand people. The EC is proposing a minimum standard of 2.5 samples per thousand people on a routine basis. But our food research and analytical laboratories have been run down and cut back due to government and local authority spending cuts. Without extra money even the present sampling rates cannot be maintained.

Ironically, the Ministry itself, in order to test the orange juices, sent their scientists to laboratories in Germany and North America, where it seems they take food sampling more seriously.

More than pure orange juice

Brand	Beet Sugar	Corn Syrup	Pulpwash
Del Monte Pure Juice	no	no	no
Sun Pride Pure Juice	YES	no	no
Just Juice Pure Juice	no	YES	no
De L'Ora Pure Juice	no	no	no
St Ivel Real Juice	no	no	no
Princes Choice Juice	YES >10%	YES	YES 27%
Sainsbury's Jaffa Juice	YES >35%	no	no
St Michael Jaffa Juice	YES >15%	YES	no
Waitrose Pure Juice	no	no	no
Tesco Pure Juice	no	no	no
Safeway Pure Juice	YES >20%	no	YES 36%
Co-op Pure Juice	YES >15%	?	YES 22%
Boots Pure Juice	YES	no	YES 33%
Supreme Fields Jaffa Juice	?	YES >20%	YES 25%
Sainsbury's Pure Juice	YES >15%	no	YES 34%
Cima Orange Juice	YES >15%	?	YES 22%
Express Pure Juice	YES >10%	no	YES 43%
Gateway Supreme Palm Springs Glory	YES	YES	no
Assis Pure Orange Juice	YES >15%	no	YES 34%
Super Life Pure Juice	no	no	YES 24%
Stute Pure Juice	no	n/a	no

■ Source: A Comparison of Methods for the Detection of Different Substances in Orange Juice, MAFF, 1991.

Brands at the top

What do shoppers love most? Coffee, Coke, sugar, tea, margarine and beans according to analyst Nielsen's latest figures for the nation's top-selling brand-name groceries.

And the company which dominates these popular products is Unilever, with 14 food products (and four washing powders) in the top 100 brands. Their food products alone were worth over £670 million in sales. Although non-food products, especially pet foods and soap powders, took some of the top places, food products predominated overall, taking over 80 of the 100 slots. Multinational companies Nestlé and Coca-Cola took the first two food positions, with Unilever's PG Tips and Flora taking fourth and fifth place.

Lunch box favourites

Sandwiches and crisps top the list for packed lunches, according to a survey by researchers at Nottingham University.

In a study of 417 children who brought lunch boxes to school, less than half brought a piece of fruit, nearly a third brought chocolates and over two-thirds brought crisps. Sandwiches and bread rolls (cobs) formed the main part of the meal. Of two age groups, younger girls (aged 11 to 13) tended to avoid savoury pies and tended to favour fruit juice drinks compared with older girls (aged 14-16) and boys of both age ranges.

School children's packed lunches

Food items found	Per cent of lunches
Sandwich	76
Crisps	71
Fruit	45
Biscuits	42
Fruit juice drinks	38
Fizzy drinks	35
Chocolate	30
Cob	23
Yogurt	18
Sausage roll	9
Pie	5
Milk-based drinks	3

Researchers were concerned about high levels of salt from savoury snacks, such as crisps and the lack of fruit in the majority of lunch boxes.

■ Adapted from 'An analysis of the contents of school children's packed lunches' by B K Lund, K Gregson, RJ Neale and CH Tilston, Food Marketing Research Group, Faculty of Agricultural and Food Sciences, University of Nottingham, Sutton Bonington, Loughborough LE12 5RD. Further details from RJ Neale.

Top twenty food brands

	Sales 1990
1 Nescafé	£187m
2 Coca-Cola	£176m
3 Silver Spoon Sugar	£139m
4 PG Tips Tea	£134m
5 Flora Margarine	£110m
6 Heinz Beans	£105m
7 Robinsons Squash	£97m
8 Tetley Teabags	£96m
9 Walkers Crisps	£90m
10 Mr Kipling Cakes	£88m
11 Anchor Butter	£87m
12 Heinz Soups	£87m
13 Tate & Lyle Sugar	£82m
14 KitKat Chocolate	£80m
15 Kellogg's Cornflakes	£76m
16 Birds Eye Menu Master	£69m
17 Lurpak Butter	£62m
18 Ski Yogurt	£62m
19 Ribena Cordial	£61m
20 St Ivel Gold Spread	£60m

■ Source: Nielsen, Checkout December 1990, plus industry data.

The total value of food brands covered in the top 100 groceries topped £4 billion. Over 30 companies shared these sales figures, but some more so than others. Over half the sales went to just six companies, and a quarter of the sales went to just two — Unilever and George Weston, owners of Associated British Foods, including Allied Bakeries.

Unilever dominates the grocery brands

Position	Unilever subsidiary
4 PG Tips	Brooke Bond Oxo
5 Flora	Van den Burgh & Jurgens
16 Menu Master	Birds Eye Walls
21 Steak House Burgers	Birds Eye Walls
30 John West Salmon	John West Foods
32 Fish Fingers	Birds Eye Walls
39 Frozen Peas	Birds Eye Walls
51 John West Tuna	John West Foods
54 Oxo Cubes	Brooke Bond Oxo
62 Red Mountain Coffee	Brooke Bond Oxo
71 Stork Margarine	Van den Burgh & Jurgens
72 Fray Bentos Corned Beef	Brooke Bond Oxo
73 Matesons Sliced Meats	Matesons Walls
75 Steak House Grills	Birds Eye Walls

Although some brands maintained strong positions without significant advertising (neither Stork margarine nor Birds Eye frozen peas was advertised during 1990), other brands in fiercely competitive markets spent fortunes — Nescafé advertising topped £8 million in 1990, and Coca-Cola exceeded £13 million. Returns on advertising may not be reflected in immediate boosts to sales, and building a product up from scratch may show initial poor returns. Lucozade spent heavily trying to boost its image, and was rewarded with £8 sales for every £1 spent on advertising, putting it on a par with Pepsi-Cola. Coca-Cola achieved £13 for every £1 adspend, while other solid sellers fared better still. Flora made £28 per £1 adspend, and Heinz baked beans £50.

Some products have taken off with very little spending on advertising. The biggest success story is the newly-popular brand of German yogurt, Muller, which saw £232 sales for every £1 adspend.

■ Research: Ian Tokelove

Mickey Mouse food hits Europe

Donald Duck soup and Mickey Mouse pasta are the first of a new tidal wave of Walt Disney food products about to hit supermarket shelves following Nestlé's £70 million deal with the film studio. Nestlé also won exclusive rights to supply food to the Euro-Disney theme park which opens outside Paris in 1992. Disney characters will also be promoting Coca-Cola globally for the next 15 years.

Disney's strategy marks the further development of Mickey, Minnie, Donald Duck and Pluto from lovable entertainers into hard-nosed business tools. They will join the ranks of Postman Pat and the Ninja Turtles in promoting processed foods to children. But parents and health campaigners may be less happy seeing children targeted with such merchandising, using familiar and popular characters from fiction to exploit children's loyalty and affection.



CARTOON: IAN TOKELOVE

Exploding the healthy eating myths

In the eyes of my former teachers, classmates and colleagues, I have sinned. In speeches to dietitians and food industry groups, in newspaper interviews and in talks to consumers, I have renounced the Basic Four Food Groups. And that's not the half of it.

I have declared that 'balance, variety and moderation' are *not* the keys to a healthful diet, and that there *are* such things as 'good' and 'bad' foods.

These statements are not only heresy to most nutritionists and dietitians, they're shocking to just about everyone. After all, who amongst us doesn't occasionally worry that our diet isn't properly balanced? How many times has a hostess defended her rich dessert with a shrug of the shoulders and a casual 'all things in moderation'?

But these popular nutrition myths aren't as innocent as they seem. In fact, they can actually impede healthy eating. My classmates from Dietetics 101 may never speak to me again, but it's time to come clean.

Myth No 1: Balance, Variety and Moderation.

In school we memorised them:

- Eat a balanced diet.
- Eat a variety of foods.

It wasn't until the late 1970s that 'moderation' got tacked on. That was part of the food industry's reaction to *The Dietary Goals* — the first report to charge that Americans eat too much total fat, saturated fat, cholesterol, salt and sugar.

The response of a group of Iowa food producers was typical. 'Moderation' of food intake may be the key to many nutritional and health problems,' said the state's Cattlemen's Association, Egg Council, Sheep Producers, Turkey Federation, Pork Producers and Dairy Council, among others.

But 'balance, variety and moderation' is a smokescreen that food manufacturers use to avoid tougher advice to cut down on fat, salt etc. It's a favourite of the food industry because it's so vague, and it doesn't suggest our diets need to change.

For example, who doesn't already eat a variety of foods? Only pets and infants, perhaps. As for 'balance,' to most people it means eating as much of the traditional foods — milk, meat, fruits, vegetables and grains — as their mothers urged them to.

And 'moderation'? That means something different to everybody, which is why the food industry loves it ... and why I don't.

In a challenge to her professional colleagues, American dietitian Jayne Hurley explodes the myths of traditional teaching on the 'healthy' diet.



Myth No 2: There are no good or bad foods, only good and bad diets.

I'll never forget it. During a speech to nutritionists and dietitians at the University of Iowa in April, I suggested there is such a thing as bad food. Heads whipped to attention. People nudged each other. A previously polite audience erupted in titters.

According to the 'no bad food' myth, any food, no matter how junky, can fit into a good diet. So you had a Double Whopper with Cheese, with its 14 teaspoons of fat and its 1,295mg sodium, for lunch. You can still have a salad and fresh fruit for dinner, and your overall diet won't suffer a bit.

While that kind of diet may balance out on a dietitian's ledger sheet, how many people eat that

way? Let's not kid ourselves: if you have that kind of lunch, chances are you have that kind of dinner.

But the 'no bad foods' proponents worry that if we tag some foods as 'bad', people might be afraid to eat them.

Hogwash. We all understand 'good vs bad.' We know that a soft drink, candy bar and

popsicle don't make a good lunch. But that doesn't mean we're afraid to have one now and then. We just eat them less often than 'good' foods, like yogurt, strawberries and whole wheat bread.

And what's a 'good' diet, anyway? It's one that's made up largely of good foods. But how can we choose a good diet if we can't identify the good foods from the bad?

The plain truth is that the food industry doesn't want to admit that some foods are better than others because many of its products are not so good.

Myth No 3: Select a diet from the Basic Four food groups.

The lettuce and tomato are from the Fruits and vegetables group, the cheese is from the Milk group, the bun is from the Grains group and the hamburger is from the Meat group.

Yessiree folks. I bet you didn't know that you could get the Basic Four all in one neat little plastic container. But you can pick up a McDLT (or one of its fast food cousins) whenever the urge to eat a 'balanced' diet strikes. Of course, you'll also pick up 8 teaspoons of fat and 990mg of sodium.

Here's what's wrong with the Basic Four: It was designed to make sure that we got enough protein, vitamins and minerals. But most Americans suffer not from eating too little, but from eating too much — saturated fat, cholesterol, salt and sugar.

What does the Basic Four have to say about those excesses? Not a peep. Is a turkey breast better than a hot dog? Is skim milk better than whole? Is whole wheat bread better than white? Not in the eyes of the Basic Four.

What's more, illustrations of the Four are often lopsided. They suggest that you need to eat as much milk and meats as you do fruits, vegetables and grains.

Old habits die hard. But it's well past time to revise the old Basic Four and separate the 'good' from the 'bad'. To some, I may have sinned, but I say 'Sin Along With Jayne'.

© Copyright 1990, CSPI. Reprinted from Nutrition Action Healthletter (1875 Connecticut Avenue, NW, Suite 300, Washington, DC 20009-5728). \$19.95 (\$27.95 overseas) for 10 issues.

Barriers to healthy eating

Despite attempts by the public to decrease the consumption of fats, their dietary levels remain unacceptably high. Professor Aubrey Sheiham identifies the obstacles in changing to a healthier diet and proposes strategies to overcome them.

Researchers have tried to identify the factors that influence food choices since the 1940s — with little progress. Much of the research has focussed on individual attitudes and beliefs. While public knowledge and attitudes do influence behaviour, undue emphasis should not be placed on these factors alone. Two large national surveys carried out by Social and Community Planning Research (SCPR) in 1986¹ and repeated in 1989² suggest that levels of public knowledge about dietary fat and coronary heart disease are high. It appears that significant numbers have changed their patterns of fat consumption and cooking practices.

The SCPR surveys found that most adults are trying to switch to a healthier diet. A substantial number had made positive changes in their diets over the last two or three years: grilling rather than frying food; using low-fat spreads instead of butter; eating wholemeal instead of white bread; substituting boiled or baked potatoes for chips and roast potatoes; and consuming less beef, pork and lamb and more fish.

The major reported reasons for these changes were weight control, a desire to remain healthy and personal taste. This suggests that 'healthy' nutrition messages are getting through.

Obstacles to change

But there are substantial obstacles to change, even for those with good incomes and education. To assess what these barriers are respondents were asked about difficulties buying, serving and eating 'food that is good for you' — and how far they saw good health as outside their control.

Lack of availability and the additional time required to prepare healthy food were not regarded as a barrier

by the majority of respondents. But family pressure, personal taste and particularly the cost of healthy food were cited as barriers to change (see below).

Significantly these barriers to buying, serving and eating healthy foods had not diminished in the three years between the surveys.

Attitudes to healthy foods

	% of respondents
■ usually more expensive	49%
■ mothers would eat healthier food if their the rest of families would let them	26%
■ doesn't taste as nice as other foods	26%
■ hard to find in supermarkets	17%
■ takes too long to prepare	16%

Expense was the most widely perceived barrier. Low-income shoppers made their food choices on the basis of cost, rather than on information about healthier ways of eating, the Welsh Consumer Council concluded in 1990. Its study³ of food prices and the availability of foods in Wales compared the cost of 14 'healthy' foods with their standard equivalents. With only three exceptions, healthy choices were more expensive. Lean minced beef was up to 62p per pound more expensive than ordinary minced beef. Similar findings were reported by the Health Education Authority⁴ in 1989. The inflated prices charged for 'specialist' healthy foods may also add to the view that eating healthily costs more.

The SCPR surveys found that some people, in particular manual workers, the elderly and the less well-educated are more likely to face more barriers to healthy eating. Regional differences were not marked: a smaller percentage (45%) in the South (compared to 51% in other regions) agreed that good food was more expensive.

While many respondents felt food experts gave contradictory advice on healthy eating, most people's images were broadly in line with that of nutritionists. But there were gaps and misunderstandings in people's knowledge which led to confusion. These could constitute a further barrier to change. For example single issue nutrition messages, such as 'sugar gives you energy', designed to sell particular products, have led to widespread confusion. The advertising industry and the mass media play an important role both in

Exercise and diet

Health educators stress the importance of exercise and a good diet to maintain health. In the SCPR survey there was an encouraging reduction, from 31 per cent in 1986 to 27 per cent in 1989, of those who believe that as long as you take enough exercise, you can eat whatever foods you want. Similarly 57 per cent — up from 51 per cent in 1986 — thought that exercise was no substitute for a healthy diet.



informing and misleading consumers. Expenditure on food advertising is huge but, most of it is aimed at encouraging people to eat foods not recommended as part of a healthy diet.

Fat displacement

While many people think they are cutting down on the fat they eat, there does appear to be a phenomenon of fat displacement. For example people cut down on fats in milk and then may go on to use more cream, or buy a low-fat margarine and spread it more thickly.

Outdated ideas, particularly those which point to starchy foods as fattening, are another common obstacle to health-promoting changes. For example, weight control is a common reason for reducing bread consumption. This runs counter to current nutritional evidence.

To minimise the frustrations of shopping on a low budget, the HEA study⁴ found that respondents developed a 'tunnel vision' approach to buying food. They shopped quickly and only looked for familiar items. Choices were habitual. Experimentation and the perusal of content labels was rare. Most families were heavy consumers of convenience foods which were relatively cheap and simple and quick to prepare. Cooking from raw occurred only once or twice a week.

Health promotion

While most research has focussed on the knowledge, attitudes and behaviour of individuals, more emphasis needs to be given to health promotion and making healthier choices easier.

Such a policy should include tax incentives to farmers and agricultural research to encourage the breeding of low-fat animals and poultry. Meat grading classifications could be introduced to discourage fattening animals, alongside better regulations on clear food labelling.

As people eat more processed foods, their control of fat consumption becomes more difficult. Food manufacturers are in a dominant position as they have the discretion to vary the fat content of their products. Controls on food standards have been reduced over the years with the emphasis shifting towards labelling — though manufacturers have consistently opposed mandatory nutrition labelling. This puts the emphasis on the purchaser to be vigilant, without providing the necessary information on which to base choices in an easy-to-understand form.

Government action

There are a range of possible ways that government could promote health, through sponsored nutrition policies and programmes. These include:

- The development and use of cost-efficient strategies in nutrition education on a mass scale.
- The advocacy and administration of regulations — on food standards, nutrient labelling and advertising.
- Subsidies for primary food industries to encourage product development consistent with dietary guidelines (eg leaner meat, improved fishing methods etc).
- The development of policy and guidelines for dietary practice in public institutions serving food (eg schools, hospitals, prisons, office canteens, trains etc).
- The honest brokerage of information and opposition to corporate misinformation.
- The development of and participation in a national research strategy on nutrition.
- The training of health personnel in minimum standards of nutritional knowledge and skill.

There still remain many unanswered questions as to why levels of fats in the diet remain unacceptably high despite attempts by the public to decrease its intake. Government policy makers and nutritionists need to investigate ways to overcome the obstacles that many people face in choosing a healthy diet.

1. Sheiham A, Marmot M, Rawson D and Ruck N (1987), Food values, health and diet. *British Social Attitudes — The 1987 Report* (Edited by R Jowell, S Witherspoon and L Brook). Gower Publishing Co, Aldershot, pp85-119.

2. Sheiham A, Marmot M, Taylor B and Brown A (1990), Recipes for Health. *British Social Attitudes — The 1990 Report* (Edited by R Jowell, S Witherspoon and L Brook). Gower Publishing Co, Aldershot, pp145-165.

3. Welsh Consumer Council (1990), *Shopping for Food*. Cardiff.

4. Health Education Authority (1989), *Diet, Nutrition and Healthy Eating in Low Income Groups*. Health Education Authority, London.

■ Aubrey Sheiham is Professor of Community Dental Health at University College London and the London Medical School.

The surgery as

As doctors turn to disease prevention by offering dietary advice, where do they get their information — and whose educational materials do they hand out to their patients?

Has your GP recently surprised you by asking questions about what you eat? Or has he or she invited you to their new clinic to discuss your diet and other aspects of your lifestyle? There is increasing interest in healthy eating among public and health professionals alike, but under the terms of the 'GP Contract', which came into force last April, GPs are now required to offer dietary advice to all patients aged 16-75. They can now be specifically paid for health promotion work in their practice.

This new emphasis on prevention is all to the good but recent surveys show that unfortunately GPs know very little about healthy eating. Around half still think that dietary cholesterol is the main determinant of blood cholesterol levels, whereas all readers of this magazine will know that it's really saturated fat which is the culprit. The reason for this ignorance about diet and health is the lack of training in nutrition from medical school onwards. Medical books, journals and magazines which doctors read to update themselves are also often wrong, if they deal with the subject at all.

So how are GPs going to cope with their new contract? One 'solution' has been to appoint a practice nurse to take on the new work. The Royal College of Nurses estimated that there are now 11,000 practice nurses in the UK — nearly double that of two years ago. But again surveys of how much practice nurses know about diet and health are not encouraging —

they too need special training. Another 'solution' is to rely on leaflets and other health education materials to go into details that the GP doesn't know or hasn't time to discuss. But who is going to train GPs and practice nurses — and write and supply the leaflets?

Training

The government's Health Education Authority has one full-time dietitian on their staff with responsibility for improving the training of GPs and practice nurses in nutrition. The food industry and pharmaceutical industry are falling over themselves to help. The training of GPs after medical school is already heavily subsidised by drug companies, which sponsor courses, conferences, journals and magazines. Food manufacturers, retailers and trade organisations are beginning to follow suit.

Quaker, for example, are currently running a series of seminars on nutrition counselling for practice nurses. Flora are producing a flip chart nurses can use with a group of patients in giving dietary advice.

Other companies have recognised the value of collaborating with health bodies already involved in training, such as the Royal College of Nursing and the Royal College of General Practitioners. The RCN, for example has been approached by over ten food companies in the last few months, including Quaker Oats, Ranks Hovis McDougall and the Butter Information Council. It is already working with Flora and the National Dairy Council. There are already various codes of practice which regulate the dealings of health professionals with the pharmaceutical industry but such codes do not yet refer to joint ventures with the food industry — perhaps they should.

Health education materials

GPs and practice nurses also need leaflets, videos, etc which back up their advice and which their patients can take away to study at home. Several surveys (for example a recent one by MAFF) suggest that people distrust health claims in food advertising but do believe the information given to them by their doctor. It is clearly to the advantage of a food company interested in improving its image or promoting its product to offer information to the public, seemingly endorsed by the medical profession.

We are therefore likely to see a rush of food product advertising in our surgeries masquerading as health education materials. From a recent list of resources on healthy eating which primary health care teams said they gave to their patients, 13 per cent of leaflets produced nationally came from drug companies and 44 per cent came from food companies or trade organisations representing food companies (see table).

As well as being endorsed by the health professional who uses the material, food companies like to have the views expressed within leaflets seemingly approved by an individual or organisation known to be involved in health education. Many of the leaflets produced by the food industry quote doctors to support their case. A leaflet from the Salt Information Bureau about blood pressure quotes Professor John Swales 'one of Britain's leading experts' on the subject. A recent leaflet by the Butter Information Council quotes Dr Colin Waine, Chairman of the Royal College of General Practitioners.

Even better than an individual's apparent approval is the endorsement of a government organisation. The Health Education Authority has recently allowed the logo of their 'Look After Your Heart' programme to be used on leaflets produced by British Meat, Ranks Hovis, and the National Dairy Council among others.

But are these commercially funded materials accurate and do consumers act on the information they contain? It is easy to find examples which contain blatantly incorrect information (a leaflet on salt recently published by the Salt Manufacturers Association claims 'The latest studies show that the link between salt and high blood pressure is indeed weak') or are merely advertisements for single products (a four-page leaflet on healthy snacks produced by Marmite Ltd for the Sylvia Meredith Health Education Advisory Service mentions Marmite 24 times). It is not clear whether these are isolated exceptions or the general rule.

In order to investigate these issues a number of organisations including the Health Education Authority, the Coronary Prevention Group, the National Forum for Coronary Heart Disease Prevention and the Food Commission have



supermarket

established a working group with other interested experts. As a first step the working group will be producing a policy statement, which will set out the questions which need further research. It will also identify what we know already and make recommendations for action. We hope that this policy statement will be endorsed by a wide range of organisations, from health professionals' bodies to consumer and voluntary groups.

In particular we are looking at the possibility of a scheme which would evaluate health educational materials submitted from any source and give them accreditation if they meet nutritional and other criteria. The body responsible for setting up, running and monitoring this scheme should probably be government-funded, but with representation from consumer and health organisations. A successful accreditation scheme for health education materials

currently operates in Finland and there seems no reason why one wouldn't work here.

Mike Rayner & Helen Lightowler
The Coronary Prevention Group, 102 Gloucester Place,
London WC1H 3DA

Imogen Sharp
The National Forum for Coronary Heart Disease Prevention, Hamilton
House, Mabledon Place, London WC1H 9TX

(The views expressed in this article are not necessarily the view of all the members of the forum.)

Who is providing the healthy eating message in doctors' surgeries?

A survey carried out by Karen Munro on behalf of the Health Education Authority looked at dietary education in general practice. Fifty-four practices were contacted by postal questionnaire of which 34 replied. Most practices used written materials — booklets, leaflets, diet sheets — to back up their advice. These materials came from 36 different sources of which 24 were local — dietetics departments and health education units of health authorities, etc. The remaining 12 were national — the Health Education Authority, two charities, four drug companies and five food companies or organisations representing food companies.

The nationally produced materials were obtained and evaluated. We looked at their content to ascertain whether this was mainly educational information based on the current consensus regarding healthy eating) or promotional (advertising the producers of the materials or their products). The materials were also rated on how useful they would be to the average consumer on a scale of 1 to 5.

<i>Publisher</i>	<i>No of Users</i>	<i>Comments</i>	<i>Rating</i>
Bristol Myers Co Ltd	E 4	Diet sheet — 'Guide for Low-Cholesterol Eating'	****
British Heart Foundation	E 2	Booklets in the Heart Information Series — 'Food and Your Heart' (No 7) and 'Hyperlipidaemia and Familial Hypercholesterolaemia' (No 16)	**
Butter Council	P 1	Booklet — 'The Busy Persons Guide to Fats in the Diet' Butter Information Council logo on bottom of every page	**
Duncan Flockhard	E 1	Diet sheet — 'HeartHealth dietary guidelines'	***
Family Heart Association	E 1	Diet sheet — 'Healthy Eating Healthy Heart'	****
Flora Project for Heart Disease Prevention	P/E	Leaflets & fact sheets on healthier eating. Booklets with recipes which use Flora products	***
Health Education Authority	E 11	Booklet — 'Guide to Healthy Eating' from the Look After Your Heart campaign and other leaflets	***
J Sainsbury plc	P/E 1	Booklet — 'Food for Healthy Hearts' (No 10 from Sainsbury's Living Today series). Mentions Sainsbury's products in text and shows pictures	***
National Dairy Council	P/E 1	Booklet — 'Food for Action' — What to eat to get the most out of exercise	**
Weetabix Ltd	P 6	Leaflet — 'The Right Weight Fibre Diet'. Promotes Weetabix products	**
Wintrop Practitioner Service	E 1	Low fat diet sheet	**

Key:

P = mainly promotional
E = mainly educational

No of users = the number of practice teams using these materials

Rating:

***** = very good
**** = good

*** = satisfactory
** = poor
* = very poor

REVIEWS

ORGANIC FARMING

Nicolas Lampkin, Farming Press Books, 4 Friars Courtyard, 30 Princes Street, Ipswich, IP1 1RJ. £19.95 ISBN 0 85236 191 2

Here is a block-buster of a book which will surely become a standard reference work for anyone concerned with the principles of organic farming. The first part of the book contains a wealth of information on just about every aspect of organic principles —

with chapters on such

And yet dipping in and out of it over several days, I started to wonder who it was written for. It is not a reference book, but the index could have usefully contained much more. I was looking for new information on problems that I had never really solved in the past — like dealing with Colorado beetles on potatoes, or chocolate spot fungus on broad beans, or controlling the ubiquitous carrot fly. Lampkin offers less useful information on these subjects than Lawrence Hills does in his 1970 book, *Grow Your Own Fruit and*

Vegetables. Even I could add a few more useful tips collected from Portuguese or Spanish peasants over the years.

I suspect that the reason Lampkin provides little useful information on such things is because of the scale of his approach to the subject. The telling word in the title is 'farming' and the book is about running medium to large mechanised farms. In fact Lampkin uses a few pages of statistics to demonstrate that an organic farm can be run with only marginally more labour per hectare than a conventional agribusiness operation. Solutions are available to the problems of Colorado beetles, chocolate spot and carrot fly but they are both labour intensive and incompatible with highly mechanised methods and so have no part in Lampkin's survey. In his eagerness to make organic farming acceptable to the mainstream farming community, he hardly considers the size of farms, the degree of mechanisation, fossil fuel inputs, or the energy efficiency of holdings as serious matters, requiring major changes in the future.

Lampkin is certainly successful at making organic farming respectable, but in doing so, he actually undermines the case for sustainable agriculture by lulling us into thinking that we can carry on with every other aspect of industrialised farming. In due course we will have to abandon the 100hp tractors, re-populate the land and farm again on a human scale. Only then will we genuinely care for the soil and everything we grow from it.

Robin Jenkins

subjects as the management of manure, the control of weeds, pests and disease, crop rotations, plant nutrition and animal husbandry, and the practice, dealing with a number of different working systems such as organic egg production, lowland beef production and field-scale vegetable production. The final chapters consider organic economics, marketing and conversion costs.

The fact that this book is published by Farming Press, which produces many standard farming magazines for the conventional agribusiness industry, indicates that organic agriculture has at last become a subject to be taken seriously. And as if to emphasise the point, the book is more than two inches thick, weighs more than a kilo, and has 701 pages of material.



LETTERS

Alcohol-free gripe water

Dear Food Magazine

The January 1991 edition of *The Food Magazine* contained an article concerning gripe water products, which stated that 'Dinnefords (made by Beecham ... still contains alcohol levels of around five per cent, stronger than many beers'.

This statement is wholly inaccurate. As you know, all gripe water products marketed in the UK formerly contained alcohol which was the only effective preservative for the type of formulation then in use. However, SmithKline Beecham developed an effective method of preserving sterility of a Dinnefords' product packed in unique sterile dose containers. The new Dinnefords' pack, which eliminated the necessity to add alcohol preservative, was introduced in September 1990, prior to the new Woodward formulation.

These facts are freely known. Accordingly we should be glad to receive your confirmation within the next few days of your intention to print a correction of your article in the next

edition of *The Food Magazine*.

E C Gater
Secretarial and Administration
Manager SmithKline Beecham

Editors' reply: We are pleased to note the change of formulation of Dinneford's gripe mixture. At the time of our survey, last November, none of our local chemists were stocking the new Dinnefords formulation, only the old.

We checked again this March. Although several retailers are now stocking the new formulation, others stock the old. The reason they give for not stocking the new formulation is the high price: at £2.30 for a pack of ten 5ml single-dose capsules the product compares badly with competitors such as Woodward's (around £1.30 for a thirty-dose bottle).

Woodward's seem to be able to produce a gripe water without either the need for alcohol or for the 'unique sterile dose containers'.

THE FOOD JIGSAW:

A food policy for the 1990s
Reg Race for the Bakers, Food and Allied Workers Union, Stanborough House, Great North Road, Welwyn, Herts AL8 7TA. £5.00 ISBN 0 9517174 0 5

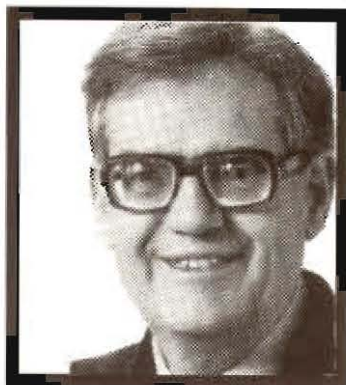
One of the problems involved in setting up the Food Commission in 1984 was trying to convince consumer organisations that they had to take the interests and needs of food sector workers seriously; and trying to convince trades unions that they had to take some responsibility for the quality of the food produced by their members.

It seemed obvious to us that good food was a recipe for more jobs. This Report from the Bakers Union is very welcome and the bigger unions will now see fit to follow suit and publish their ideas for the future of food in Britain. Maybe the TUC will be moved to rejuvenate its moribund Distribution, Food, Drink, Tobacco and Agriculture Industries Committee. In the meantime, may we wish Joe Marino, the General Secretary of the Bakers Union, every

success in furthering the production of genuine wholemeal bread with no additives, instead of glutinous cotton wool.

Robin Jenkins





The Long view

Farmers' Arms

Guest writer Alan Long targets the secret arms trade in deepest rural England, where chemical warfare is being waged in earnest.

Would you like your very own Frigate, Missile, Laser, Javelin, Spitfire, Dagger, Rapier or Sabre? Will it pack the Clout, Sting, Stomp, Punch, Avenge, Ambush, Recoil, Cyperkill or Impact you want? Would you like it delivered in a Fusilade by Bombardier, Marksman, Gunner, Musketeer, Commando, Warrior or Field Marshal working in a Patrol, Brigade or Squadron?

Such are the militaristic trade-names coined by the (aggro)chemical industry in their bid to arm farmers in the battle to win this year's harvest. Every arable farmer in the land is a target for the chemical companies' salesforce. And the sales pitch is simple: war. The farmer versus the environment. Man against nature.

Why not spray your crops with a dose of Dictator? Or Narsty? Or Gesatop (Ciba-Geigy's simple anagram of gestapo). Or the wonderfully honest Agritox?

However there are exceptions. Du Pont's marketing staff have chosen Harmony as the name for 'the most comprehensive broad-leaved weed

control available from a single product', requiring 'no special precautions' to protect operators, and reassuring us that 'wild life is not threatened'.

It's potent stuff. 'One small jar is enough to treat five acres of cereals.' The name is deceptive — Harmony is designed not to harmonise with the natural world but to harmonise in tank mixes with other pesticides.

For several decades the philosophy has been simple. If it moves, kill it. If it doesn't, spray it. The 'barley barons' still resist reform. Rotations still comprise 3-years-in-barley, 1-year-in-Bermuda.

But now genetic engineering has entered the battlefield. Certain herbicides, such as glyphosate (Roundup or Tumbleweed), clobber the enzymes essential to nearly all growing plants — weeds, crops and all. However, if you can genetically endow the crops with resistance to the herbicide, as Monsanto have now done with sugar beet, you can patent the seeds and the herbicide together and sell a comprehensive package to farmers — a crop and a spray that kills everything except the crop.

Grist to the mill

Such marvels are grist to the technologists' mill, but do they reflect progress? Are such expensive tricks relevant in rich countries already despoiled by over-production? Or in poor countries where such technology cannot be paid for? Sugar beet, for

example, is a notorious case of a crop grown to excess in rich countries, which beggars the economies of poorer cane-producers.

In the crazy world of CAP economics British cereal farmers, plying their barrage of pesticides and fertilisers, may appear efficient and they lament the £120 per ton they get now for milling wheat compared with the £120 (yes — the very same) a ton they were getting a decade ago. Meanwhile the standard loaf has enjoyed value-adding to the tune of 60 per cent.

Over-production has brought the price of wheat on world markets down to just £40 per ton; the EC is budgeting for export subsidies of £88 per ton. Yields per acre increase by two per cent per annum in this highly subsidised 'efficient' agrochemical farming sector and schemes for set-aside and alternative enterprises (trees, horseculture, golf courses) only serve to concentrate arable farming even more intensively into the highest yielding hectares.

Trapped in the machine

The British farmer, like his wretched battery hens, is trapped in the production machine. Banks, insurance companies and the government have encouraged farm borrowings exceeding £13bn, with interest payments alone totalling over £1bn this year. Bank managers are not disposed to support their clients in escaping the clutches of ICI, Shell or Ciba-Geigy to chance their luck with low-input and organic husbandry.

We grow far more than we need. Our barns bulge with grain, and such storage in turn invites resort to fumigants and fungicides. I've visited a granary where cats were brought in to control the birds, rats and mice fouling the sacks of grain. The cats fouled them, too, of course. 'It's all right,' said my guide, 'This lot would only be used for famine relief.'

Food crops are not the only culprits in all this. Cotton is environmentally one of the worst in its use of pesticides and depletion of natural resources. But the day has yet to come when supermarkets clamour for stocks of organic tee-shirts and low-input Levis. Perhaps then we could really bless the farmers' cotton socks!

ASK UNCLE BOB

Public analyst Bob Stevens answers questions about food composition.

Water in bacon

Q. I recently bought a vacuum pack of sliced bacon which was labelled **NO ADDED WATER**. How can they make such a claim when water is listed as the second largest ingredient?

A. On the face of it this claim is nonsense, and must make the consumer wonder if the manufacturers know what they are doing.

Without analysing a particular sample I cannot say how much water is in the product. However the Meat Product Regulations give manufacturers great leeway by allowing them not to declare the first 10 per cent of added water.

Assuming this product contains less than 10 per cent added water then a 'With added water' label is not required — but that is not the same as claiming 'No added water'. If I received such a sample in my official capacity I would seek to get the label changed.

Camembert

Q. Is the skin on Camembert edible?

A. The white skin is perfectly edible and consists of a mould added to the cheese similar to the blue moulds found in Stilton and Danish Blue. A combination of moulds is used to create Camembert's characteristic taste, usually *P camemberti* or *P candidum* along with another mould known as 'linens'.

Before the moulds are applied the cheese is hard, but as they develop they release metabolic by-products (proteolytic and lipolytic enzymes). These diffuse into the cheese, breaking down protein and thereby rendering the cheese smoother and softer. The flavour also develops at this stage, produced by the breakdown of protein and fat in the cheese. This process takes 10-14 days. The mould is applied to the cheese as spores that are sprayed into the atmosphere around the cheeses, and allowed to settle on their surface (a few teaspoons of spore is enough to treat several tons of cheese).

MARKET PLACE

BOOKS

Food Irradiation

Good food doesn't need irradiation. If food had to be irradiated then ask 'what was wrong with it?' With the UK government permitting food irradiation in 1991 this book is essential reading.

224pp ISBN 0-7225-2224-X £6.50 including post and packing.

Food Adulteration

The London Food Commission's expose of the shocking state of food quality in Britain, revealing the facts on additives, pesticides, nitrates, food poisoning and irradiation. We deserve the best but we will only get it if we demand it. This book spells out what the demands should be.

295pp ISBN 0-04-440212-0 £5.95 including post and packing

Prescription for Poor Health

Thousands of women and young children live in cramped, unhealthy and sometimes dangerous bed and breakfast hotels. They may be unable to cook or even store food. Their diet is poor. Based on interviews with the women themselves, it is a unique record of late-twentieth century Britain as experienced by hundreds of thousands of people.

135pp ISBN 0-948857-18-8 £6.45 including post and packing

More Than Rice and Peas

With a wealth of detail on meals, snacks, drinks, cooking and serving methods, the guidelines will prove an invaluable tool for putting a multi-cultural policy into practice. The book includes lists of suppliers, useful contacts and national and local organisations able to offer further information and resources, plus the problems and successes achieved by some 80 projects across Britain.

240pp ISBN 1-869904-30-3 £17.00 including post and packing

Children's Food

★ *Teething rusks sweeter than a doughnut?*
★ *Fish fingers less than half fish?*
★ *Beefburgers can be up to 40% pig fat?*
The book offers ways of judging what is good or bad on the shelves of our shops and gives sound advice on how to ensure our children eat healthily.

210pp ISBN 0-04-440300-3 £4.75 including post and packing

Additives – Your Complete Survival Guide

What can you do about additives? Which are dangerous and which are safe?

With comprehensive charts, the book explains 'E' numbers and examines the evidence on each food additive. It tells you everything you need to know, but industry would prefer you didn't ask, about the chemicals added to your food.

288pp ISBN 0-7126-1269-6 Normally £4.75, but for Food Magazine readers just £3.50 including post and packing.

Safe Food Handbook

The key facts to help you understand current issues such as the use and misuse of pesticides. Plus an A-Z shopper's guide to the most commonly bought foods, pinpointing risks and recommending alternatives.

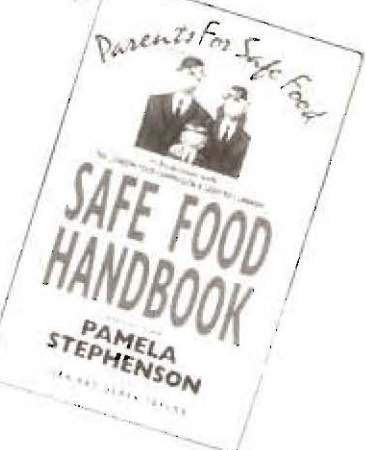
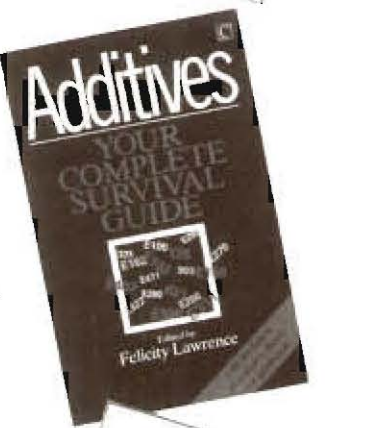
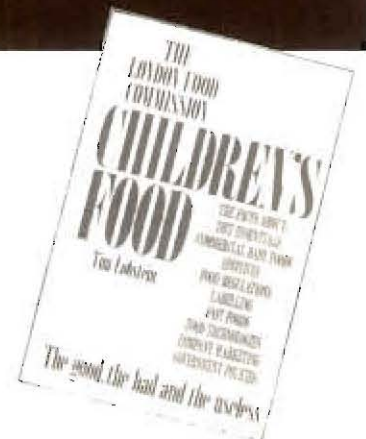
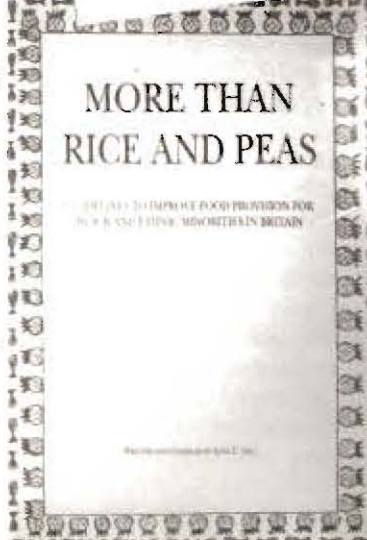
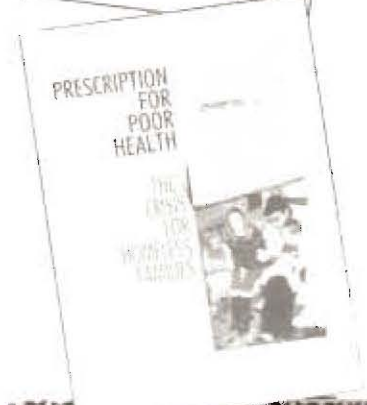
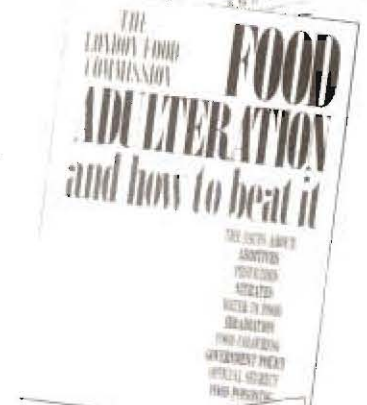
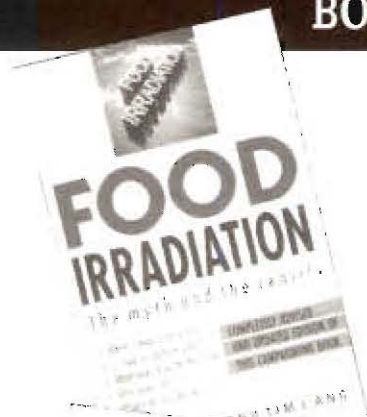
Edited by Joan and Derek Taylor, with an Introduction by Pamela Stephenson.

256pp ISBN 0-85223-823-1 £7.74 including post and packing

Fast Food Facts

★ *Chips coloured with textile dyes*
★ *French fries cooked in beef fat*
★ *Batter made without eggs or milk*
You don't have to avoid fast foods. But you do need to know what is in them. With comprehensive tables of nutrients and additives this book is a unique look into the secretive world of fast food catering.

171pp ISBN 0-948491-48-5 £5.95 including post and packing



MARKET PLACE

BACK ISSUES

Take this opportunity to complete your set of Food Magazines. Make sure you have at your fingertips three years of investigative and informative reporting about food and the food business, packed with news, features and opinions, essential for reference and research.



ORDER TODAY!

Send your order to the Publications Department, The Food Commission, 88 Old Street, London EC1V 9AR. Make cheques payable to The Food Commission (UK) Ltd. Prices quoted include approximately 15% postage and packing. Overseas purchasers should send payment in sterling. An additional £2 per item is required for airmail delivery.



Please send to

Name _____

Address _____

Return to Publications Dept, The Food Commission,
88 Old Street, London EC1V 9AR.

The Food Magazine, Issues	@ £2.50
Food Irradiation Myth & Reality	£6.50
Food Adulteration & How to Beat It	£5.95
Prescription for Poor Health	£6.45
More Than Rice And Peas	£17.00
Children's Food	£4.75
Additives Survival Guide	£4.75, now £3.50
Safe Food Handbook	£7.74
Fast Food Facts	£5.95
TOTAL	_____

Issue 1

- ★ BST — what's in our milk?
- ★ Do we need added bran?
- ★ Taking the lid off canned meat

Issue 2

- ★ Hidden hazards in healthy foods
- ★ A hard look at ice cream
- ★ Homeless and hungry

Issue 3

- ★ Fast food secrets
- ★ School dinners
- ★ The cost of healthy food

Issue 4

- ★ Baby foods — read the label
- ★ The not-so-healthy cereal bars
- ★ Supermarkets' green policies

Issue 5

- ★ The 'premium' sausages rip-off
- ★ Alcohol in gripe water
- ★ Aluminium in baby milks

Issue 6

- ★ Microwave hygiene hazards
- ★ Fruit drinks less than 50% juice
- ★ Vitamin enriched junk food

Issue 7

- ★ Fish missing from fish fingers
- ★ 'Low alcohol' confusion
- ★ Hazards for cocoa workers

Issue 8

- ★ Guide to butter substitutes
- ★ Catering in HM prisons
- ★ Germaine Greer on sex and food

Issue 9

- ★ Children's TV food advertising
- ★ MAFF cuts in food research
- ★ Fish scraps sold as steak

Issue 10

- ★ Plastics that migrate into food
- ★ Sugar in children's yogurt
- ★ Artificial dyes in eggs and fish

Issue 11

- ★ How they sell sports nutrition
- ★ Secrets in your chewing gum
- ★ Fish farming found wanting

WHAT THE JOURNALS SAY

Poverty and heart disease, vitamins and IQ, and follow-on milks – Eric Brunner reviews the medical press

POVERTY IN INFANCY AND EARLY DEATH

The role of material hardship in early death has not been disputed since the Black Report was published in 1980. But the precise connections between poverty and ill-health are not yet clear.

David Barker, at Southampton University, has identified living conditions, including nutrition, in infancy as a key factor (see *What the Journals Say*, *The Food Magazine* issue 2). New work, however, suggests that circumstances throughout adult life may be of equal or greater importance. This view is more optimistic, suggesting that our fates may not be determined irreversibly by our early legacies.

Using official statistics, Barker showed a strong relationship between premature adult death rates from circulatory and respiratory diseases in different areas of England and Wales, and the corresponding infant mortality rates around the time of birth. Infant mortality was taken to be an index of deprivation in early childhood.

This approach has now been extended to take account of social and economic factors in later life. Researchers at University College London suggest that the geographic relation between infant and adult mortality rates could simply reflect persistence in the distribution of poverty and affluence during this century. Again using official statistics, they have shown strong correlations between infant

mortality rates at the turn of the century and adult mortality from various causes in 1969-73, across 43 counties. But when an index of social deprivation at the time of death was used to adjust the death rates for present-day circumstances, the correlations between infant and adult mortality were either abolished or much reduced.

The deprivation index was calculated from county census results of car ownership, overcrowding, male unemployment, and percentage of employed men in social classes 4 and 5. Use of this index to adjust county death rates abolished or reduced correlations between infant and adult mortality rates for heart disease, stroke, and cancers of the lung, stomach and cervix. This adjustment did not remove the link between infant mortality and death rates from bronchitis, and this can be interpreted to suggest, as other studies have shown, that repeated childhood infections increase the risk of later respiratory disease. This implies that there may be an important relationship between early living conditions for respiratory disease, but not for heart disease. The researchers point out that neither infant mortality nor adult deprivation is a direct cause of disease, and that these statistical associations are a reflection of specific, unidentified factors.

This research does not mean that early life conditions, such as diet, are not an important factor in determining the

risk of heart disease. Rather it suggests that to understand the relative importance of factors acting throughout life it is necessary to follow individuals and groups for their entire lives rather than to focus on a particular period, as was done in the Barker studies.

Ben-Shlomo, Y and Davey Smith, G 'Deprivation in infancy or in adult life: which is more important for mortality risk?' *The Lancet*, 337 1991, pp 530-34.

IQ PILL LAUNCH TOO CLEVER?

Would you be convinced by this story? A new charity the Dietary Research Foundation has been set up by a barrister specialising in taxation – and has spent more than half a million pounds testing the effects of vitamin supplements on the intelligence of school children.

The trials were started in California, Israel and Cumbria, but those in Israel were abandoned and the final English results are still awaited. It is claimed that the results show intelligence improvements averaging four IQ points regardless of the age, sex or starting IQ of the children.

The results, a stunning nutritional breakthrough worthy of publication in any leading medical journal, if valid, will appear in a special issue of *Personality and Individual Difference*, a journal with a circulation of less than a 1000. Before they have been assessed by scientists, the results are being quoted in trade promotional literature for new vitamin and mineral pills with the slogan 'Vitochieve - the intelligent way to profit'.

Are you convinced? BBC TV's QED team was, and ran the story on February 27 as a straight science piece, with plenty of shots of children eating 'junk' food and pictures of IQ-enhancing pills. But no shots of healthy diet alternatives.

Vitochieve multivitamins and minerals were launched the day after the QED programme. Campbell D, 'BBC embarrassed by link to "IQ pill" sales'. *Independent* on Sunday, 24th February 1991.

FOLLOW-ON MILK FORMULAS

The World Health Organisation's 1981 code of practice restricts the advertising of breast milk substitutes.

Follow-on milk formulas are exempt from this code, and were recently defended by Professor Brian Wharton, a member of the Panel on Child Nutrition at the Department of Health. He regards follow-on formula milks as a better food than whole cow's milk for children less than a year old, because of their balance of nutrients.

An interesting correspondence has appeared since his articles in the *British Medical Journal*. Patti Rundall of Baby Milk Action, points out that follow-on formulas are promoted in parents' magazines with competitions offering prizes of bedroom suites and weekend breaks. Researchers from the Dunn Nutrition Unit have examined the errors of mothers making up formula milks using powder scoops and tap water. Many bottles were under-concentrated and others over-concentrated. Only two of 19 mothers studied reconstituted the formula with less than 10 per cent error.

Milk for Babies and Children. *British Medical Journal*, 302 1991, pp 177 and 350-51.

MILK AND BUTTER 'GOOD FOR THE HEART'

Eyebrows rose considerably when the newspapers reported 'Milk helps avert heart disease' and 'Butter eaters have fewer heart attacks'. Eyebrows rose further when it emerged that the data for these findings came from an MRC-funded unit, namely Dr Peter Elwood's Epidemiology Unit at Cardiff.

Dr Elwood warned readers not to draw conclusions from these figures alone, but by then it was far too late. Both the media and the food industry had lapped it all up and drew all the conclusions they could.

Meanwhile other conclusions were being drawn. Dr Elwood had published the results independently, without them being refereed by professional colleagues. That is why we don't have a 'journal' reference at the bottom of this article.

The medical establishment is not happy, and the MRC will convene a scientific panel to review this work.

COMING SOON IN THE FOOD MAGAZINE!

Future issues of The Food Magazine will include:

- ★ Vitamin pills – do we need them?
- ★ Poverty – mothers go hungry to feed their children
- ★ Are baby drinks a waste of money?
- ★ Plus news, features, reviews and your letters.