

Food law in New Zealand: additives, allergens and labelling

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In this article John McLeay considers the labelling requirements for processed food in New Zealand, with particular emphasis on additives. He focuses on the growing evidence that many ingredients may be harmful to a large number of people and should thus never be secret. He concludes that the present labelling system often prevents consumers making an informed choice about what they eat and should be replaced with a numerically coded system similar to that presently used by the European Economic Community.

I. INTRODUCTION

Food is man's most intimate contact, far more intimate than copulation. What you eat . . . is absorbed directly into the bloodstream.

Doctor Richard Mackarness¹

“Real food” is coming back into vogue. People are realising the terrific impact, detrimental or beneficial, food can have upon them. Wholefoods and additive free foods are becoming more popular as the consequences of eating processed substances are being exposed. The literal truth of timeless sayings such as “you are what you eat” is again being appreciated. Consequently, as their awareness grows many people are asking for a greater control over the food they ingest by requiring, among other things, more detailed information about the ingredients to be contained within a “consumer panel” on all packaged food.

This paper considers the labelling requirements for food additives in New Zealand as laid down by the Food Regulations 1984² and looks at the adequacy of the present system, particularly from the point of view of people who wish to avoid specific food additives for health, moral or religious reasons.

In 1980 Dr R. Mackarness wrote “[c]linical experience has incriminated . . . artificial additives as causative agents in a wide range of behavioural problems”.³ The problem is

* This is an edited version of a paper presented as part of the LLB (Hons) programme.

1 Dr Richard Mackarness *Not All in the Mind* (Pan, London, 1976), 139.

2 S.R. 1984/262.

3 Dr Richard Mackarness *Chemical Victims* (Pan, London, 1980), 102.

not limited simply to behaviour however, with additives being incriminated in a wide range of physiological disorders from asthma⁴ to cancer.⁵

It is accepted that to forbid totally the addition of any chemicals to food would be impractical because, as an article in *The Lancet* pointed out, "... the supply of adequate quantities of safe food to large urban communities would be difficult without them".⁶ It is not proposed to consider in depth the issue of whether the present regulations placed on food additives are too liberal in what they permit, but instead to focus upon the idea that consumers should be in a position to avoid substances if they wish to.

It is proposed to examine in some detail the reasons why chemical additives should be labelled clearly. This will be done by considering additives in their various classes e.g. antioxidant, emulsifier etc and looking at those that are permitted and potentially harmful. A call for detailed consumer information will be supported with examples of the harm each additive is known to present.

It is important to keep in mind that while small doses of these additives will usually present no problems, the long term effects may be quite different. *The Lancet* has reported that additives can be stored in the body's adipose tissue and that there is a real risk "... any sudden reduction of body fat (for instance, by slimming or as a result of disease) might release them from the depots in toxic amounts".⁷ The example is given of Dicotane (D.D.T.) where the average American's body fat contained 5.3 parts per million in 1950 but by 1969 it had almost doubled to 10.3 parts per million.⁸

II. THE ADDITIVES

A. Antioxidants

These are substances used to prevent oxidation i.e. chemical reactions with oxygen. Oxidation may lead to formation of harmful compounds such as peroxides or cause foul smelling and tasting products through rancidity. Food fats are particularly susceptible to this. There are other methods of preventing oxidation besides adding antioxidants, such as vacuum and lightproof packing or refrigeration, but the cheapest method of antioxidation remains the use of additives. Therefore it is the most popular with manufacturers.⁹

The Food Regulations permit fifteen substances to be used as antioxidants. Many people may wish to avoid five in particular.

- (a) Butylated Hydroxyanisole (B.H.A.). Like Butylated Hydroxytolene (B.H.T.), this has been widely recognised for some time as an undesirable additive. It raises the

4 Maurice Hanssen *Additive Code Breaker* (Lothian Publishing Co., Melbourne, 1986), 190; "Food Allergy" *The Lancet*, London, 3 February 1979, 249.

5 Commission of the European Communities *Food Additives and the Consumer* (Luxembourg, 1980), 18.

6 "Food Additives" *The Lancet*, London, 16 August 1969, 362.

7 *Idem*.

8 *Ibid.* 361-362.

9 *Supra* n.5, 19.

cholesterol level in the blood and can increase the risk of breakdown of important substances in the body, such as vitamin D, by the formation of metabolising enzymes in the liver.¹⁰

- (b) Butylated Hydroxytolene (B.H.T.). As well as causing the same problems as B.H.A., B.H.T. has caused rashes and has been linked to possible reproductive failures, behavioural effects and blood cell changes.¹¹ The potential of B.H.T. to be retained in human fat is illustrated by comparing figures from Britain to those from the United States of America. In 1968 the British averaged .49 parts per million of B.H.T. in their body fat while the Americans, who consume more additives, averaged 3.19 parts per million.¹²
- (c) Propyl gallate, dodecyl gallate and octyl gallate. All three of these may cause a variety of problems for people who suffer from asthma or are sensitive to aspirin.¹³

B. Preservatives

Preservatives are substances which impede fermentation, putrefaction¹⁴ or decomposition. Preservation involves controlling bacteria, yeasts, moulds and fungi which may render food unfit for consumption either directly, as some micro-organisms are poisonous, or indirectly through secreted toxins.¹⁵ Preservation can be carried out by thermal treatments such as sterilization,¹⁶ pasteurization,¹⁷ refrigeration,¹⁸ dehydration or chemical preservatives. The latter, being much cheaper than the other methods, are most commonly used.¹⁹

Only three substances are permitted preservatives under the Food Regulations.²⁰

- (a) Sorbic Acid. The least objectionable of the three, it is a possible skin irritant.²¹
- (b) Sulphur dioxide. This preservative is toxic and has been connected with irritation of the alimentary food canal.²² The Australian Hyperactive Children's Support Group (HACSG) recommends that hyperactive children avoid it.²³

10 Hanssen *supra* n.4, 77.

11 *Ibid.* 78.

12 *Supra* n.6, 361.

13 Hanssen *supra* n.4, 75.

14 The decomposition of animal and vegetable substances accompanied by vile smell and appearance.

15 *Supra* n.5, 18.

16 *Idem.* The heat kills all micro-organisms.

17 *Idem.* The heat kills some micro-organisms.

18 *Idem.* The cold inhibits growth.

19 *Idem.*

20 Regulation 248.

21 Hanssen *supra* n.4, 34.

22 *Ibid.* 44; *supra* n.5, 18.

23 Hanssen *supra* n.4, 6.

- (c) Benzoic Acid. Also recommended for avoidance by hyperactive children,²⁴ benzoic acid is likely to cause a reaction in asthmatics and people with recurrent urticaria.²⁵ It may also cause gastric irritation if a large quantity is consumed and it is purportedly responsible for neurological disorders.²⁶

C. *Flavouring or Flavour Enhancer*

The Commission of the European Communities estimates that the number of flavours used in foodstuffs exceeds 2000.²⁷ The New Zealand Regulations state that "... all flavouring substances shall be permitted flavouring substances . . ." ²⁸ with the exception of only six specified substances. Flavour enhancers (which are "flavouring substances") have little taste of their own but intensify the taste of other products when added to them.

- (a) Sodium 5' — ribonucleotide; Disodium Guanylate and Disodium Inosinate. All three are flavour enhancers and all three should be avoided by people suffering from conditions such as gout (which require an avoidance of purines).²⁹
- (b) Monopotassium Glutamate. This flavour enhancer can cause vomiting, nausea, diarrhoea and abdominal cramps.³⁰
- (c) Monosodium Glutamate. This flavour enhancer is probably the best known. It operates either by increasing the amount of saliva produced in the mouth or by stimulating the taste buds.³¹ It is implicated in "Kwok's Quease"³² or "Chinese Restaurant Syndrome,"³³ the symptoms of which are heart palpitations, headache, dizziness, muscle tightening, nausea, weakness of the upper arms, neck pains and migraine in susceptible people.³⁴
- (d) Ammonium Chloride. This is a flavour that "... should be avoided by people with imperfect liver or kidney functions . . ." ³⁵ because it affects the acidity of urine.

D. *Emulsifiers and Anti-foaming Agents*

These are added to stabilize a mixture and ensure consistency i.e. make chocolate more mixable; margarine smoother and mayonnaise thicker and smoother.³⁶ Many are safe and natural.³⁷

24 *Idem*.

25 A skin disorder resembling a nettle-rash.

26 Hanssen *supra* n.4, 37.

27 *Supra* n.5, 23.

28 Regulation 252 (2).

29 Hanssen *supra* n.4, 167-168.

30 *Ibid.* 166.

31 *Ibid.* 165.

32 *Supra* n.1, 35.

33 *Supra* n.5, 24.

34 Hanssen *supra* n.4, 165.

35 *Ibid.* 146.

36 *Supra* n.5, 24.

37 Hanssen *supra* n.4, 9.

- (a) Sodium and Potassium Tripolyphosphates. There are French suggestions that polyphosphates could cause digestive disturbances by blocking a number of enzymes.³⁸

E. Stabilizers, Thickeners and Gelling Agents

These are used to improve the presentation and consistency of the food. Stabilizers bind the solids and liquids together preventing them from separating as they would naturally.³⁹ For instance, without them chocolate would settle on the bottom of chocolate milk mixtures and ice cream would become “grainy” as the water separated and froze.⁴⁰ Thickeners and gelling agents simply provide the desired consistency.

- (a) Agar. It is not digested but may cause flatulence and distension (swelling) or intestinal obstruction if taken in large quantities.⁴¹
- (b) Carrageenan. This is a possible cause of ulcerative colitis⁴² which can lead to the removal of the large bowel followed by colostomy,⁴³ an operation described as “mutilating”⁴⁴ and “psychologically devastating”.⁴⁵ It is of considerable concern in the United Kingdom where carrageenan has been “. . . widely advertised as a drink in slimming recipes . . .”⁴⁶ In 1971 Dr M. Benarde reported that, in the United States of America, “. . . it would appear carrageenan is the most widely used stabilizer”.⁴⁷

F. Acidity Regulators

As the name implies, these substances control the acidity of foods.

- (a) Ammonium bicarbonate. This irritates the mucous membranes of the stomach.⁴⁸
- (b) Lactic acid. Problems are experienced by very young babies who have difficulty metabolising it.⁴⁹
- (c) Sodium Aluminium Phosphate. While normally this presents no problems, small babies and people with kidney and heart problems are at risk. A very high intake can be dangerous because the level of sodium is closely related to the body’s water balance.⁵⁰

38 Ibid. 124.

39 Dr M. Benarde *The Chemicals We Eat* (American Heritage Press, New York, 1971), 81.

40 Idem.

41 Hanssen supra n.4, 106.

42 *The Lancet*, London, 7 February 1981, 338.

43 This is the construction of an artificial anus in the abdominal wall.

44 Supra n.1, 126.

45 Idem.

46 Supra n.42.

47 Supra n.39, 83.

48 Hanssen Supra n.4, 143.

49 Ibid. 66.

50 Ibid. 153.

G. Colouring

These are the most controversial of the additives because of the lack of justification for their use. They serve no purpose other than to supposedly make things more appealing to the eye. By contrast, the harm they can do is enormous.

Seven of the thirty-seven colours permitted in New Zealand are "Azo Dyes". These dyes are particularly harmful to asthmatics, people who suffer from eczema and people who are sensitive to aspirin. The reactions they may cause include asthma attacks, rash, watering eyes and nose, swelling of the skin with fluid, blurred vision, hyperactivity in children, contraction of the bronchi (tubes allowing air into the lungs) and occasionally shock and a reduction of blood platelets (involved in blood clotting to seal wounds) and production of anti platelet antibodies.⁵¹

The seven "Azo Dyes" permitted are Tartrazine (yellow/orange), Sunset Yellow, Amaranth (red), Brilliant Black P.N., Brown H.T., Carmoisine (red) and Ponceau 4R (red).

- (a) Tartrazine (yellow orange Azo dye). Reaction to this is common and includes urticaria (skin rash); rhinitis (hayfever); breathing problems; blurred vision; headaches and purple patches on the skin. It has also been suggested that tartrazine is responsible for wakefulness in small children at night through the ingestion of orange fruit cordials and confectionery.⁵²
- (b) Sunset Yellow (yellow Azo dye). This has been implicated in angioedema (swelling of blood vessels), gastric upsets and vomiting.⁵³
- (c) Erythrosine (red). This can cause phototoxicity (sensitivity to light) and it contains enough iodine so that eating considerable amounts of food containing it could increase circulating thyroid-hormone to levels high enough to cause hyperthyroidism (over active thyroid).⁵⁴
- (d) Indigo Carmine (blue). It may cause nausea, vomiting, high blood pressure, hypertension and occasionally skin rashes, itching and breathing problems.⁵⁵

Not everyone will suffer the harmful and sometimes horrific reactions to food additives detailed above. The full extent that any one person is affected by a particular additive is extremely difficult to determine — so many things may combine to cause a headache or nausea or asthma that one cannot say with any certainty that it was, for instance, B.H.T. or tartrazine. However, as more people learn about the probable connection between additives and certain of their illnesses they should be able to avoid those things specifically identified as bad for them. It is a matter of informed choice.

51 Ibid. 190.

52 Ibid. 13.

53 Ibid. 15.

54 Ibid. 17.

55 Ibid. 19.

To avoid every food that contains stabilizers, thickeners or gelling agents because one wants to avoid one thing, for example, carrageenan, is extremely difficult, as hundreds of foods may contain it. It also makes little sense. The consumer is needlessly missing out on foods and the manufacturer is needlessly missing out on money.

III. THE PRESENT LABELLING REQUIREMENTS

The following requirements for labelling additives, from the Food Regulations 1984, apply to most foods. There are exceptions and variations to these requirements, far too many to canvass in such a comparatively brief paper, but the general requirements illustrate the present lack of detailed information required.

Regulation 11 begins by stating that “. . . the label on each package of food sold by retail shall bear a statement of ingredients of the food, listed in descending order of ingoing weight . . .”.⁵⁶ It then goes on to require that food additives shall be listed using the class names specified. The class names are general ones such as antioxidant, emulsifier, colour etc. While the label must list the additive by its class name it may also contain the specific name in parentheses after the appropriate class name.

In brief the present situation is that manufacturers must list additives by general class names only and *may* list the specific names in parentheses.

Class names are unjustifiably vague when one considers the potential damage that some, and only some, additives within each class may cause consumers. This problem can simply be overcome by the imposition of mandatory specific labelling requirements for additives along similar lines to the European Economic Community's (E.E.C.) system.

IV. THE PROPOSED LABELLING REQUIREMENTS

It is submitted that the most suitable and comprehensive method of labelling would be a numerically based system. To require labels to specify every additive using the specific name would make labels read like chemistry texts and may only serve to confuse further.

The E.E.C. uses a system whereby each additive is given a code number and this number (or the specific name) is required to appear after the class name.⁵⁷ Thus, the immediate information given on the label is still only a class name but in addition people who are aware and interested can ascertain exactly what it is they are contemplating eating. A label for fruit drink may read “Sugar; Fruit Juice; Preservatives (E200), (E210); Colours (E110), (E102).” Anyone who cared to know would be aware it

⁵⁶ Regulation 11 (1).

⁵⁷ Council Directive 79/112, 18 December 1978. On the Approximation of Labelling Foodstuffs to the Ultimate Consumer, article 6.

contained Sorbic acid, Benzoic acid, Sunset Yellow and Tartrazine (and would hopefully avoid it!). Sellers could place a “codebreaker” chart around the shop to facilitate informed purchasing.

New Zealand could adopt a system parallel to the European system whereby the New Zealand number for each additive corresponds with the equivalent E.E.C. number i.e. E102 is tartrazine; New Zealand would label tartrazine 102. The Health Department is presently considering changes to the labelling laws which include imposing such a system.⁵⁸

This would enable complete information to be available for anyone who wanted it without requiring more expensive or notably longer labels, as well as harmonising our labelling laws with some of our larger trading partners. Apart from facilitating trade generally, this would also enable New Zealand consumers to readily identify the contents of imported packaged foods.

V. THE LABELLING OF GENERAL INGREDIENTS

It is by no means only chemical compounds that consumers wish to avoid in their food. All manner of food may be desired to be avoided by all manner of people for reasons of health, religious principles or moral convictions.

It is proposed to consider three groups of people who have compelling reasons for wishing to avoid certain foods or additives, to examine the labelling requirements as they apply to the relevant ingredients and again to consider the adequacy of the present law. The three groups are by no means an exhaustive list of people who have specific needs but will serve to illustrate the problems all such people presently face.

A. Vegetarians

To many people it is morally unjustifiable to consume the flesh, or meat, of animals. The interpretation of “meat” varies considerably, with some purported vegetarians consuming fish,⁵⁹ others rejecting eggs as unformed flesh,⁶⁰ and others still including all animal products within their definition of “meat” thus excluding eggs, milk and all related products from their diet.⁶¹ The present labelling system may hide many unwanted animal products behind class names.

- (a) Gelatin is produced by boiling the skin, bones and other collagenous material of animals.⁶² It may be present in food as “stabilizer”, “thickener” or “gelling agent”.⁶³ Many other stabilizers, thickeners and gelling agents may be acceptable to vegetarians.

58 Interview with J.S. Fraser, Assistant Director (Food Standards) Division of Public Health. It is hoped to begin phasing in the changes from early 1988. No relevant regulations had been drafted by 21 May 1987.

59 Janet Barkas *The Vegetable Passion* (Routledge & Kegan Paul Ltd, London 1975), 44.

60 Ibid. IX. These people are often referred to as lacto-vegetarians.

61 Idem. These people are often referred to as vegans.

62 Regulation 73.

63 Regulations 11 (12), 253.

- (b) Rennet is obtained from a brine extract of the enzyme rennin taken from the digestive tract of calves.⁶⁴ Bromelain, by contrast, would be acceptable because it is an enzyme prepared from pineapple juice.⁶⁵ By law both need only be labelled "enzyme".⁶⁶
- (c) Cochineal or Carminic acid is a red colouring that may be derived from egg yolks and the fatty part of a dried female insect native to central America and the Canary Islands.⁶⁷ It need be labelled only as "colour".⁶⁸
- (d) A label with "emulsifier" or "anti-foaming agent" may refer to lecithin⁶⁹ which can also be derived from egg yolks.⁷⁰
- (e) Disodium guanylate, which may be labelled "flavour enhancer"⁷¹ is isolated from sardines.⁷²

B. People Sympathetic to Jewish or Hindu Teachings

This group of people avoids specified animal products only. Those following modern Hindu teaching desire to avoid beef and products obtained from slaughtered bovines, while followers of Jewish teachings would avoid products obtained from pigs. As has been mentioned, gelatin is produced from animal's collagenous parts, and may be listed as "stabilizer", "thickener" or "gelling agent".⁷³ Regulation 11(11) requires animal fats and oils to be labelled simply as "animal fats" and "animal oils". No indication need be given of the type of animal it is derived from.

C. People Aware of Food Intolerances/Sensitivities

To be able to appreciate the labelling needs of this growing class of people a basic understanding of the nature of common food intolerances is needed. It is all too common that people without "allergies" or food intolerances fail to comprehend the restrictions these disorders place on the susceptible individuals. With labelling that fails to specify every ingredient ". . . shopping in a supermarket for a person with specific food and chemical sensitivities is like negotiating a minefield".⁷⁴

There are essentially two types of food intolerances; "fixed" and "unfixed" ones. The "fixed" ones are usually present from birth and require the victim to completely avoid for life the substance that causes the reaction to avoid the symptoms. The "unfixed" intolerance can often be "cured" by eliminating the guilty substance for a time and then reintroducing it in a slow and controlled way.⁷⁵

64 Regulation 120.

65 G. Reed *Enzymes in Food Processing* (Academic Press, New York and London, 1966), 128.

66 Regulations 11 (12), 253.

67 Hanssen *supra* n.4, 15.

68 Regulation 11 (12).

69 Regulation 253.

70 Hanssen *supra* n.4, 79.

71 Regulation 11 (12), 252.

72 Hanssen *supra* n.4, 167.

73 See the text accompanying n.63 *supra*.

74 *Supra* n.3, 102-103.

75 Vicky Ripperre *The Allergy Problem* (Thorsons Publishers, Northamptonshire, 1983), 10.

A person with food intolerance goes through three stages (although some individuals may never reach the third stage). In the first stage there will be an immediate reaction to the guilty substance.⁷⁶ This manifests itself with symptoms such as nausea or vomiting after smoking one's first cigarette, drinking one's first beer or nip of spirits, or may show in the development of red blotchy patches on the skin after eating, for instance, eggs for the first time. When this is recognised for what it is, a rejection by the body of the substance, then the substance can be avoided as something one's body is sensitive to and cannot tolerate.

The second stage occurs when one persists in ingesting the harmful substance, as when parents force eggs on children thinking they will grow out of their "dislike" for this "good" food, or when one keeps drinking or smoking for social reasons. After a fairly short period of regular ingestion a stage of adaptation occurs, and the person will appear to be tolerating the food. All that has really occurred is a delay in the timing of the reaction and the creation of an addiction.⁷⁷

The cigarette and alcohol examples are two of the most commonly recognised addictions in our society but the principle works exactly the same for foods such as eggs, wheat and milk. There is little difference between a drug addiction, an alcohol addiction and a severe food addiction. (An alcohol addiction may be a food addiction e.g. whisky addicts may be addicted to the cereals that are fermented.) In each case the body requires regular doses of the substance to remain feeling well and avoidance of the substances will induce a withdrawal ranging from a headache and nausea, often described as a hangover, to a more extreme case of delirium tremens or convulsions.⁷⁸ The symptoms will be those that were originally experienced as an immediate reaction, albeit more severe as the intolerance worsens.

Not surprisingly the person learns to associate the guilty substance with feeling well and takes it on a more and more frequent basis. In this second stage the body has adapted to the guilty substance just as it does to any stress,⁷⁹ and, so long as a regular supply of eggs, alcohol, cigarettes, wheat or whatever else the person is addicted to is ingested, the symptoms will usually continue to be suppressed while the body is still suffering harm from the stress load.⁸⁰

Some examples will illustrate the process. It is not uncommon for people addicted to caffeine to feel tired and lethargic upon waking and to immediately have a cup of tea or coffee. They then feel reasonably well until mid-morning when the "dose" wears off and another cup is needed, or an alternative source of caffeine is found, such as a chocolate bar. If they find themselves unable to get a "fix" they soon become unwell with a headache and general malaise setting in.

Solvent sniffers follow the same pattern. To begin with the petrol or glue sniffer gets a nasty headache with each sniff. Repetition of sniffing leads to the body adapting to it

76 *Supra* n.1, 64.

77 *Idem*.

78 *Ibid.* 67.

79 *Ibid.* 64.

80 *Ibid.* 64-67.

and a hangover effect if solvents are avoided.⁸¹ An English painter found that while on holiday in Brighton he could only feel well by standing near painters working, and inhaling the paint fumes.⁸²

Similarly, people who have wheat intolerances and addictions may eat, day after day, “weetbix” for breakfast, sandwiches for lunch, cake in mid afternoon, a wheat based dessert and finally biscuits before retiring for the night. By morning they feel unwell until they have eaten some wheat.⁸³

However, many people reach a point where their bodies are unable to cope with the stress any longer and they enter the third stage, which is “exhaustion”.⁸⁴ Entry into this stage may be precipitated by a trauma such as a severe cold. “In most cases, this is regarded by doctor and patient as the beginning of the illness.”⁸⁵ At this point the person feels ill all the time and frequent doses can no longer mask the reaction. If an intolerance is recognised as the problem then strict avoidance will begin to enable the person to withdraw from the addiction. The severity of sensitivity at this stage is such that even minute doses can prevent full withdrawal and subsequent recovery.

The exact number of people suffering from major food intolerances is unknown because conventional medicine so often fails to recognise it for what it is. Doctors Philpott and Kalita wrote, in 1980, that “. . . medicine at large has been negligent in examining the ecologic-organic evidence of food and chemical . . . [intolerances] as causes in both physical and mental illness”.⁸⁶ Doctor R. Mackarness, writing at the same time, estimated that food and chemical sensitivities are responsible for as many as one in three cases of so-called “emotional problems” — people being so labelled because the doctors are unable to locate the cause of the ailment through conventional means.⁸⁷

Despite the lack of an accurate estimate of the numbers of sufferers it has been suggested that in developed countries sensitivities “. . . have surpassed infection as the number one cause of human ills”.⁸⁸ Clearly the number of people aware of their food intolerances will keep growing and consequently so will their needs to know exactly what they are contemplating buying.

D. The Labelling Requirements

The present requirements for labelling ingredients that do not come within one of the classes of additives discussed earlier are generally satisfactory. Each ingredient must be listed in descending order of ingoing weight at the time of manufacture.⁸⁹

81 Ibid. 64.

82 Ibid. 65.

83 Discussion with Dr R. Gorrings, Cambridge, New Zealand.

84 Supra n.1, 66.

85 Idem.

86 W. Philpott and D. Kalita *Brain Allergies: The Psychonutrient Connection* (Keats Publishing, Connecticut, 1980), 50.

87 Supra n.3, 50.

88 Ibid. 22.

89 Regulation 11 (1).

However, two problems for people with specific intolerances still needlessly arise. First, anything that contains an animal fat or oil does not have to specify the source of it. Similarly any vegetable fat or oil need not specify the vegetables it is derived from.⁹⁰ For people with a specific intolerance to dairy products or foods in the legume family, two common problem groups, it is vital to know whether the fat or oil comes from cows, soybeans or something they can tolerate such as sheep or sunflower seeds. It is unreasonable to have to avoid all products with fats or oils because their origins are not specified.

Secondly, many of the class names used for additives hide more than chemicals. It could be disastrous for the mental and physical health of a person who is very sensitive to wheat to eat something with "stabilizer", "thickener" or "gelling agent" on the label, unaware that flour and starch may be covered this way. Those class names also hide gelatin, a potentially harmful substance for someone with a sensitivity to dairy products, and certain other unspecified substances which may be derived from eggs,⁹¹ beans⁹² and fish.⁹³ This second problem would be solved if the numerical coding system discussed earlier was adopted allowing specific identification of each ingredient.

To summarize the situation, the labelling laws are often too general to be of any real benefit to people interested in preventing or curing many food related disorders. More detailed requirements would be a considerable help to many people and would place little extra burden on manufacturers.

VI. CONCLUSION

This paper has attempted to do more than merely examine certain nice "legal" aspects of the present labelling law in New Zealand. It has attempted to go beyond the technical arguments and to compile and present some of the mounting evidence that more care needs to be taken by everyone when deciding what to eat. Although a greater public awareness and education of the medical profession generally are the key to better eating habits and consequently fewer health problems, sufficient information must be available to consumers if they are to be able to buy processed foods with any confidence. A tightening up on food labelling requirements would also be in line with the more general move away from a policy of caveat emptor (let the buyer beware) occurring in the area of consumer protection as evidenced by, for instance, the Fair Trading Act 1986. It is in this area of information that the law can assist most at present by developing to meet the needs of the growing body of health conscious consumers aware of the hazards hiding behind labels.

90 Regulation 11 (11).

91 E.g. Cochineal or Carminic acid and Lecithins. Hanssen *supra* n.4, 15 and 79.

92 E.g. Lecithins. *Ibid.* 167.

93 E.g. Disodium guanylate. *Idem.*