

**Report on the logistics and labelling changes related to the
introduction of mandatory fortification of bread and
breakfast cereals with iodised salt (and the impact of a
preceding requirement for mandatory fortification of bread
with folic acid).**

Food Standards Australia New Zealand

by

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Introduction

Food Standards Australia New Zealand (FSANZ) has proposed the mandatory fortification of bread with folic acid in Australia and New Zealand (P295). In a similar but unrelated proposal, FSANZ has proposed the mandatory fortification of bread and breakfast cereals with iodine, through the replacement of added salt with iodised salt (P230). Both of these proposals if adopted will require manufacturers of the relevant products, ingoing premixes and manufacturers of products in which bread or cereals are compound ingredients¹, to make changes to labels and associated product documentation to identify the new components in their ingredient lists. The report also examines the potential for manufacturers to directly fortify foods with iodine in situations where there system of adding salt is not compatible with the use of iodised salt.

In the Final Assessment Report for P295 (folic acid fortification), FSANZ has proposed that the standard requiring mandatory fortification of bread with folic acid have a 15 month implementation period from the date of gazettal. Between gazettal and this final date, fortification could be undertaken on a voluntary basis, thereby affording Industry with capacity to phase in the change.

The Draft Assessment Report for P230 (iodine fortification) has proposed that mandatory fortification of bread and breakfast cereal commence 12 months after gazettal. It is currently expected by FSANZ that P230 is likely to be gazetted 3 months after P295. This effectively provides a 12 month change over period for any baker wishing to align the introduction of both folic acid and iodised salt.

In contrast, industry has requested a substantially longer period of time to implement the new mandatory compositional requirements and associated labelling. Industry has also identified a number of other proposals in the FSANZ system (eg changes in response to the revised Nutrient Reference Values and Nutrition, Health and related claims) that are likely to require further changes to existing food labels. Periods of time of between 2-4 years have been suggested by industry to enable them to integrate the implementation of these labelling changes.

The industry

Salt producers

The principal manufacturers of salt for food use in Australia are:

- Cheetham Salt, Australia,
- Western Salt Refinery, Western Australia
- Dominion Salt, New Zealand

Salt manufacturers in both countries have indicated that they would require 6-12 months, following gazettal of a requirement for mandatory replacement of salt with iodised salt in bread and breakfast cereals, to enable them to upgrade plant and equipment to meet

¹ A compound ingredient means an ingredient of a food which is itself made from two or more ingredients. Standard 1.2.4 of the Code requires the components of a compound ingredient to be labelled where the amount of compound ingredient in the food is 5 % or more

demand for iodised salt.

Food Manufacturers

Bakers

The market share in both countries has been estimated as indicated below:

	Australia ² .	New Zealand ³
Plant bakers	61%	60%
Supermarket in-store & franchised bakers	34%	30%
Independent and artisan bakers	5%	10%

The principal plant bakers in both countries are George Weston Foods (Tip Top) and Goodman Fielder. The leading supermarket own brand bread is also manufactured by these bakers.

Many bakeries use premixes, containing the specialty flours and other components, to produce a range of different products from a generic bread mix. This enables bakeries, and especially small bakeries, to reliably produce a wide range of breads in relatively labour intensive circumstances. Premixes may provide an effective vehicle for the mandatory addition of iodised salt to bread. There are 3 principal manufacturers of premixes for bakers in both Australia and New Zealand:

- Bakels
- Cereform (a division of George Weston Foods)
- Cerol (owned by Cereform)

Breakfast cereal manufacturers

The principal manufacturers of breakfast cereals in Australia and New Zealand are:

- Kellogg
- Sanitarium
- Uncle Tobys /Nestle
- Hubbards (New Zealand)
- Lowans (Australia)
- Greens (Australia)

Food manufacturers, especially bakers and bakery pre-mix manufacturers have overwhelmingly expressed concern that the two proposed sets of mandatory compositional changes, for folic acid and iodised salt, should be coordinated by FSANZ so that they are able to minimise costs and disruption by only making one labelling change to meet the

² 2000 production in the Australian bread industry as reported in The Australian Baking Industry – A Profile. Australian Government, Canberra 2003.

³ Market share estimated by the New Zealand Association of Bakers

needs of both proposals. In the course of consultations with industry members, the prospect of further mandatory labelling changes, to Nutrition Information Panels and related to the introduction of a Nutrition, Health and Related Claims regime were foreshadowed. It was suggested by a number of manufacturers that industry be allowed to consolidate all of these changes, rather than having to make one change in the near future and a further change about a year later.

A majority of industry personnel consulted highlighted the logistical problems associated with labelling changes across a large number of products, in particular, the need to obtain internal company clearance for all of the revised labels concerned and the need to review associated information, such as product information sheets that are often provided to wholesale customers. In the case of foods which are destined to be used as compound ingredients in other foods (e.g. breadcrumbs) the need to coordinate the compositional and labelling changes with client businesses, which would also have to change labels, was also highlighted as a further complexity.

The cost of the associated changes depends upon the complexity of the labels (eg the number of colours involved and the nature of the artwork) and the number of plates to be changed. Packaging manufacturers identified the cost of a single design change on plate as starting from A\$200 and NZ\$600 in Australia and New Zealand, respectively. The typical total cost of a new plate was estimated at A\$1000 or NZ\$1500.

Recently, Australian food manufacturers have been voluntarily revising their labels to include % daily intake of various dietary components (%DI). One manufacturer volunteered that the introduction of %DI had taken them, to date, approximately 8 months to implement, from project approval to %DIs appearing on packaging, and that there were still some SKUs (stock keeping units - an identifier used by merchants to permit the systematic tracking of products and services offered to customers) in their range that had not been changed yet. Furthermore, the carton stocks were managed during this period so as to ensure no write downs. The cost of this managed labelling update was estimated by the manufacturer at A\$120,000 for retail packaging only (ie not including food service bulk items). The project also required significant personnel input at many levels for both the manufacturer and key suppliers. The manufacturer suggested that this experience proved a good model for the labelling changes associated with the proposed iodine fortification change but pointed out that in the case of a compositional change the workload would be significantly greater as it would be necessary to obtain internal company approval for both for the artwork changes and also for the manufacturing/compositional change for each product. Another manufacturer estimated the cost of artwork changes for 120 SKUs of packaging at A\$200,000, before consideration of write downs. One New Zealand packaging manufacturer drew on the experience of a recent labelling change across the entire product range for a client manufacturer to put the typical cost for the proposed changes at NZ\$400,000. Packaging manufacturers consulted believed that they would be able to process the required changes for all current clients within the time frames envisaged. However, there was a concern from some food manufacturers that if the time allowed was too short that this would be at a premium cost.

It was also identified that in most cases, a business would undertake the change associated with mandatory fortification, e.g. the change from regular salt to iodised salt, throughout a manufacturing site, and possibly all the businesses' manufacturing sites, on a single day. In this situation, because a business would be unlikely to be able to coordinate

run out of all of its packaging to coincide with the change over, a business would either have to take the risk of continuing to use old, out of date packaging, that did not identify the presence of folic acid and iodised salt, or it would have to accept considerable write down of pre-printed packaging material. Packaging manufacturers indicated that for larger businesses and fast moving product lines normal practice is to manufacturer 6 weeks- 2 month stock at a time. However, in the case of a slow moving or minor product line, up to 12 months label stock may be produced in a single run. The cost of write down could therefore be considerable. In consultations, one breakfast cereal manufacturer, estimated the value of packaging stock write down, based on their current stock holding, for 120 affected SKUs but run down to a minimum level to be of the order of A\$1 000,000. A major plant baker identified the value of their normal label stock holding at A\$4 000,000. A substantial percentage of this stock would be written of in a comprehensive, compositional and labelling change.

A number of industry members raised the possibility of FSANZ including a stock in trade provision for labels, which might enable the introduction of mandatory fortification within the period proposed by FSANZ but allow a longer period for the associated labelling changes to occur, thereby allowing business to run out packaging that was already printed. However, it was noted that there was a business risk with this proposal if consumers perceived industry to be taking advantage of it to avoid labelling. Support for this approach from industry was, therefore, conditional on a clear stock in trade provision being included in the Code and strong public support for it from FSANZ. It is likely, however, that this proposal would be in breach of fair trading laws in Australia and New Zealand and not therefore a viable option for further consideration.

Once a decision has been taken to implement fortification within a business, the period of time for replacement of stock in the market would be rapid for breads which have a relatively short shelf life. The maximum shelf life identified for breakfast cereal was 12 months.

Iodine fortification other than through addition of iodised salt

The most common way in which salt is added during food processing is on a batch basis, either as dry salt or, via a slurry tank, as a brine solution. However, one breakfast cereal manufacturer has identified that they add salt in their process by means of a bulk system. Dry salt is held in a bulk tank and water is trickled through it to yield a brine solution which is then diluted and used for cereal cooking. The salt is delivered in bulk 20 tonne loads normally twice per week. Salt is ordered when the bulk tank level falls to around 7 tonne. As a consequence the level of salt in the tank varies between 5-27 tonne. This manufacturer has indicated that the proposal as drafted would require them to replace their bulk salt supply with iodised salt and, as a result, identified two potential logistical problems:

- differences in solubility between sodium chloride and potassium iodate would result in a varying level of iodine in their products throughout production; and
- they would not be able to run a separate production stream to produce products for export markets, such as Japan, that are iodine replete and in which iodisation is not permitted.

This manufacturer has put forward an alternative proposal that they be allowed to add iodine directly to the product through the existing systems used to add minerals to their

products.

To date no trials have been undertaken by the manufacturer, or others, to ascertain the impact of the different solubilities of sodium chloride and calcium iodate. Some data in this regard would strengthen the argument. However, the impediment to export production from the use of iodised salt by this manufacturer would appear to provide a valid justification for allowing the proposal for separate addition of iodine provided that the finished product was compositionally identical to one that would have been made using iodised salt. The principle that the components of a food may be added in a variety of ways to achieve an end point is well established in the Food Standards Code. For example, in the manufacture of a beverage, one or more premixes containing flavourings, colourings, food acids and other characteristic components may be added to sugar and carbonated water. The finished product may then be described as a mixed drink (eg mixed berry fruit drink or vodka and cola), however, at no time during the manufacturing process have these components existed as discrete entities.

A parallel provision to the requirement to use iodised salt in breadmaking and breakfast cereal manufacture, might, for example, deem a product to comply if the amount of added iodine present in the product when expressed per unit weight of added salt fell within the range prescribed for iodised salt. To facilitate enforcement and to avoid consumer confusion, in regard to the mandatory use of iodised salt, FSANZ might also consider a provision that when salt and iodine are added as separate entities in propositions consistent with the definition of iodised salt, they are to be declared in the ingredient list as iodised salt.

Conclusions

Labelling

On balance, whilst a majority of those manufacturers consulted suggested that 18 months from the date of gazettal of the second⁴ mandatory fortification proposal would be sufficient, a number were strongly of the view that they would need 2 years to ensure fortification could be implemented and that all their labels could be changed.

Furthermore, salt producers have suggested that they would not be able to provide sufficient iodised salt to meet the full market demand resulting from the mandatory fortification proposal for 6-12 months after gazettal. Taking this into account, together with the the 12 month shelf life for breakfast cereal products, some provision, to enable clearance of slow moving stock and stock in smaller regional and rural outlets beyond 18 months may also be warranted.

There was a strong view from the food industry that, having regard to the significant costs to industry involved in introducing mandatory fortification and the associated labelling changes, any future changes to mandatory labelling should be delayed until they may be implemented in a coordinated manner.

⁴ It has been assumed to date that Proposal P230 would be completed after P295 (folic acid fortification), Both of these proposals may result in labelling changes. It would be appropriate to ensure that any such changes are coordinated in order that industry are only required to redesign labels once.

Logistics of iodine addition

There is apparent justification in the case of at least one food manufacturer, where bulk salt is used, to allow separate addition of iodine in place of iodised salt. Consideration should be given to ensuring that in this event, the outcome achieved is identical to that which would result from the use of iodised salt and also, to facilitate enforcement and avoid consumer confusion, to requiring the declaration of the entities (salt and iodine) as iodised salt in the ingredient list.

Industry personnel consulted during the preparation of this report

Annette Campbell	Consultant, New Zealand Bakers Association	Baker
Brett Hobson	Dominion Salt	Salt Manufacturer (NZ)
Fiona Flemming	George Weston Foods	Baker
Frank Catanzariti	Nestle	Breakfast Cereal Manufacturer
Geoff Drewer	Sanitarium	Breakfast Cereal Manufacturer
Kirsten Grintner	Uncle Toby	Breakfast Cereal Manufacturer
Mike Normington	Bakels	Bakery Premix Manufacturer
Paul Harris	Goodman Fielder NZ	Baker
Robyn Hodge	Kellogg	Breakfast Cereal Manufacturer
Steve Williams	Aperio (NZ packaging Co)	Packaging Manufacturer (NZ)
Travis Clayton	AMCOR	Packaging Manufacturer (Australia)
Wally Rickard	Cheetham Salt	Salt Manufacturer (Australia)