



Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

February 14, 1995

ADMINISTRATIVE ORDER
No. 4-A s.1995

SUBJECT: GUIDELINES ON MICRONUTRIENT FORTIFICATION OF PROCESSED FOODS

Section I. AUTHORITY

This Order is issued pursuant to Article 7, 17, 21 and 22 of R. A. 7394 known as the Consume Act of the Philippines.

SECTION II OBJECTIVES

1. The Department of Health issues these guidelines to improve the nutritional quality of the nation's food supply.
- 2.1 ThePe. guidelines shall serve as a basis for the rational addition of nutrient(s) to processed foods, so that the nutritional quality of the Filipino diet can be improved and maintained.
- 2.2. These guidelines are intended to avoid over—or—under fortification that may create imbalance in the diet as well as avoid misleading label claims to gain competitive marketing advantage.

SECTION III. DEFINITION OF TERMS

For purposes of these Guidelines. the following definitions shall apply:

1. Fortification shall mean the addition of nutrients to processed foods at levels above the natural state.
2. Processed food shall refer to food that has been subjected to some degree of processing (e.g. milling, drying, concentrating, canning, etc.) which partially or completely changes the physico—chemical and/or sensory characteristics of the raw material.
3. Unprocessed food shall refer to food that has not undergone any treatment resulting in substantial

change in the original state but which may have been divided boned, skinned, peeled, ground, cut, cleaned, trimmed, fresh frozen or chilled.

4. Department means Department of Health.

5. RDA means Recommended Dietary Allowances.

IV. STATEMENT OF POLICIES

1. Food fortification shall be vital where there is a demonstrated need to increase the intake of an essential nutrient by one or more population groups, as manifested in dietary, biochemical or clinical evidences of deficiency. It shall also be considered important to compensate for nutrient losses due to processing storage.

2. The Department recognises that the nutritional deficiency problems in the Philippines, based on recent nutrition surveys include deficiencies in energy, iron, vitamin A, thiamin, riboflavin, and iodine (Annex A). Filipino diet is also deficient in ascorbic acid, calcium and folate to a minor extent.

Food fortification shall thus be mainly carried out to fill up these inadequacies in Filipino diets; based on present day needs as measured using the most recent RDAs (Annex B).

3. Food fortification shall not be encouraged in alcoholic beverages and candies because excessive consumption as a result of undue promotion of these fortified products may lead to health problems.

4. Food fortification shall be highly encouraged for foods that are widely consumed particularly by at-risk population groups. Examples of such foods are:



5. Fortification shall be recommended for processed foods replace or simulate traditional foods to compensate for nutritional inferiority due to use of substitute ingredients.

SECTION V. COVERAGE

These Guidelines shall apply to all fortified foods except dietary supplements and foods for which established standards include specifications for nutrient composition or levels of fortification, e.g. breastmilk substitutes, follow-up formula.

SECTION VI. FOOD FORTIFICATION GUIDELINES

1. A nutrient shall be considered an appropriate fortificant only when the nutrient:

a) stable in the food vehicle under normal conditions of storage, distribution and use;

b) is physiologically available from the food:

c) present at level at which there is reasonable assurance that consumption of the food containing the added nutrient(s) will not result in an excessive intake of the nutrients(s) considering cumulative amounts from other sources in the diets; and

d) is suitable for its intended purpose and in compliance with applicable provisions of R.A. 3720 and regulations governing the safety of substance in foods.

2. Processed foods may be fortified with nutrients that are not considered deficient in the Filipino diet if the purpose is to restore losses in the food due to processing or to preserve/maintain a balance of nutrients in the processed food.

3. Fortification is appropriate when essential nutrient(s) is (are) added in proportion to the total caloric content of food

Processed foods that contain at least 40 kilocalories per normal serving (that is, 2% of a 2000 kilocalories) may be fortified to balance the nutrient-caloric content of the food.

4. Processed foods that are consumed not for its caloric contribution to the diet (e.g. condiments, seasoning/spices) may be fortified only with essential nutrients that are deficient in the Filipino diet. PROVIDED such foods are appropriate vehicles for the particular nutrients(s) and are widely consumed by the general population or are intended for intervention programs to address micronutrient deficiency in specific target populations.

5. The fortification level shall be in accordance with the following principles, unless otherwise provided in a separate guideline/standard for specific processed food.

A nutrient(s) shall be considered appropriately added to the food when it is/(they are) at levels above the natural state within the conditions stated n 5.1 to 5.11.

5.1 For essential nutrients that are deficient in the Filipino diet, the added nutrients shall supply at least 1/3 of the RDA of the target consumer (refer to Annex E Table 1), except that vitamin C shall be supplied at not less than 100% of the RDA in fortified Juices/flavored drinks. These levels shall be uniformly distributed in the total number of servings likely to be consumed in a day.

Hence, the minimum fortification level shall be computed in the following manner:



where A = 1/3 RDA of the target consumer

B = no. of servings likely to be consumed per day

C = serving eaten (amount of food normally eaten at one time)

To get fortification level per serving, divide A by B. In the case of processed foods that will be cooked before consumption, the losses due to the prescribed cooking directions may be compensated accordingly when determining the amount of nutrient(s) to be added.

Examples of fortification levels computed as above:

Ready—to—eat flour—based products (e.g. bread, snack food) fortified with iron and B-complex vitamins - assuming 2 servings are likely to be consumed by a male adult (20-39y, 56kg) in a day, and at 30 grams/serving, shall be fortified as follows:

thiamin..... 0.22 mg/serving (=0.72 mg/100g)

riboflavin 0.22 mg/serving (=0.72 mg/100g)

iron..... 2.0 mg/serving (=6.7 mg/100g)

Margarine fortified with vitamin A and thiamin - assuming 2 servings are likely to be consumed by a male adult. (20-39y, 56kg) in a day, and at 15 grams/serving, shall be fortified as follows:

vitamin A. 87.4 ug RE/serving (= 583 ug RE/100g)

thiamin 0.21 mg/serving (=1.4 mg/100g)

Packaged fruit-flavored drinks fortified with vitamin C = assuming 2 servings are likely to be consumed by a male adult (20-39y, 55kg) in a day, and at 250 mL per serving shall be fortified as follows:

vitamin C 38 mg/serving (= 30 mg/200 mL serving)

5.2 For nutrients that are essential but have not been established to be deficient in the Filipino diet, the added nutrients shall supply at least 1/5 (or 20%) of the RDA of the target consumer. (refer to Annex E, Table 2).

5.3 For nutrients that are essential but have no established RDA, the added nutrients shall supply at least 20% of the estimated safe and adequate levels for daily intake as recommended by the Food and Nutrition Board of the U.S. National Research Council (refer to Annex E, Table 3)

5.4 For processed foods to be fortified with nutrient(s) with known toxicity (e.g. vitamins A, D, E, K, Zn, Se}, the level of such nutrient(s) in the food shall not exceed 150% of the RDA for the target consumed per day.

5.5 For essential amino acids, fortification levels shall be in accordance with the

recommendations of the Joint FAO/WHO/UNU Expert Consultation on Energy and Protein Requirements. (WHO TRS 724, 1985) Food manufacturers who wish to fortify their products with amino acids are required to consult a qualified professional with expertise in human nutrition and shall submit a certificate of such consultation.

5.6 For nutrients that have not been established essential for humans, fortification with each nutrient shall be at a significant level above the natural state as determined by the precision of the analytical methods at its lowest detection limit.

5.7 The reference RDAs to be used in compliance with the above fortification guidelines are shown in the tables in Annex E.

5.8 For nutrients with Philippine RDA, the reference RDA shall be those of a Filipino male adult, 20—39y, 56kg.

5.9 For nutrients without established Philippine RDA, the USRDA shall be used particularly of the male adult, 19—24y, 72 kg.

5.10 For processed foods specifically intended for children (after infancy and below 10 years}, the reference RDA shall be that of a child in the 4 to 6 years age group.

5.11 Where no RDA has been prescribed for a nutrient, safety considerations shall be applied and the safety of the use of such nutrient in a particular food shall be supported by the user/claimant (producer/distributor).

SECTION VII LABELING OF FORTIFIED PROCESSED FOODS

The following label declarations shall be required for fortified processed foods, in addition to other requirement under BFAD's food labeling regulations.

1. Only when the levels of fortification provided in Section 6 are met and when the nutrient content analysis at any point in time within the shelf—life of the product, show at least 80% to 90% of the claimed fortification level depending on the nutrient analyzed and the precision of the analytical methods used, shall the claim "FORTIFIED" be considered valid.

2. Fortification claims shall be based on the processed food packaged and purchased by the consumer.



3. The fortification level shall be appropriately presented the label indicating the following information:

*by weight for solid food and volume for liquid food

3.1 If the Food as packaged is not ready-to eat and will be consumed after simply mixing with water (or other edible liquid), the amount of nutrient fortificant shall be declared in terms of %RDA per the specified amount needed to make one serving of the ready—to—eat food.

3.2 If the food is not ready—to—eat as packaged and is used as an ingredient for the preparation of another food, the amount of the nutrient fortificant added shall be declared as % RDA per 100 grams of the packaged food and optionally, as % RDA per specified amount used in a given product recipe.

3.3 The % RDA per 100 kcal of the packaged food may also be declared on the label when such food contains at least 40 kcal per serving.

4. The terms “enriched“ added with "supplemented with" and other similar terms shall be equivalent to the term "fortified". Descriptive terms like “rich in”, “good source of”, “excellent source of” shall not necessarily imply fortification and shall be used in accordance with BFAD’s food labelling regulations.

SECTION VIII. COMPLIANCE AND ADMINISTRATIVE SANCTIONS

1. These guidelines shall be applied in the registration of fortified processed food products in the BFAD.

2. The BFAD itself or BFAD in coordination with the recognized agencies or institutions listed in Annex “F” shall monitor the micronutrient of fortified processed food.

3. A processed food claiming fortification shall be considered mislabelled unless the fortification levels comply with these guidelines except when the deviation from the fortification levels herein set are justified and are properly declared in the labelling.

4. The BFAD, after notice and hearing, may impose any or all of the following administrative sanctions in cases of non-compliance with these guidelines.

4.1 Order the recall of the products declared/found as mislabelled fortified food

4.2 Order the correction of the labelling of the fortified food products

4.3 Impose administrative fines provided for by existing laws

4.4 Suspend or cancel the registration of the product.

SECTION IX. TRANSITION PERIOD

1. All manufacturers or food processors are given six (6) months from effectivity to comply with these guidelines.
2. All food products that are not otherwise adulterated or mislabelled produced before the expiration of this 6-month period shall be allowed to stay in the market up to the expiration of their shelf—life.

SECTION X. EFFECTIVITY

This Order shall be effective after its publication in two newspapers of general circulation at least once a week for a period of not less than one (1) month pursuant to Art. 8 of RA 7394.



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