TRANSLATION FROM FOODEX1 TO FOODEX2

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TRANSLATION FROM FOODEX1 TO FOODEX2: SUMMARY

- Why "translation"?

- Method

- Examples

- Take-home messages

WHY "TRANSLATION"?

FoodEx1 → **FoodEx2**

Technical conversion factors (f1 – f2 – f3)
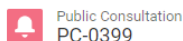
NEW **Technical conversion factors (f1 – f2 – f3)**

Some numbers:
- 31 food manufacturing processes where FE-TOS remain
- 6,833 food items
- > 20'000 technical conversion factors

FoodEx1 → FoodEx2

Process-specific technical data used in exposure assessment of food enzymes

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Abstract

Food enzymes are used for technical purposes in the production of food ingredients or food-as-consumed. In the European Union, the safety of a food enzyme is evaluated by EFSA on the basis of a technical dossier provided by an applicant. Dietary exposure is an integral part of the risk assessment of food enzymes. To develop exposure models specific to each food manufacturing process in which food enzymes are used, different input data are required which are then used in tandem with technical conversion factors. This allows the use levels of food enzyme to be related to food consumption data collected in dietary surveys. For each food manufacturing process, EFSA identified a list of food groups (FoodEx1 classification system) and collated technical conversion factors. To ensure a correct and uniform application of these input data in the assessment of food enzyme dossiers, stakeholders were consulted via open calls-for-data. In addition to publishing and updating the identified input parameters on an annual basis, single-process-specific calculators of the Food Enzyme Intake Models (FEIM) have been developed. These calculators have been deposited at https://zenodo.org/ since 2018 for open access. In 2023, EFSA completed the collation of input data for a total of 41 food manufacturing processes in which food enzymes are employed. In this document, the food manufacturing processes are structured, food groups classified initially in the FoodEx1 system are translated into the FoodEx2 system, and technical factors are adjusted to reflect the more detailed and standardised FoodEx2 nomenclature. The development of an integrated FEIM-web tool is also being carried out for a possible release in 2024. This tool will be able to estimate the exposure of the food enzyme-TOS when employed in multiple food manufacturing processes.

Keywords

Enzyme, food manufacturing process, conversion factor, dietary exposure, calculator, FEIM.

Calls for data

MINTEL

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Prevention of acrylamide formation in foods

FoodEx1

Code	Name	f1	f2	f3
A.05.07.003	Dried prunes (*Prunus domestica*)	2.86	1	0.25

FoodEx2

Code	Name	f1	f2	f3
A01MB	Dried prunes	2.86	1	0.25

EXAMPLE: DIRECT MATCH

Production of plant-based analogues of milk and milk products

FoodEx1

Code	Name	f1	f2	f3
A.08.09.001	Almond drink	1	0.023	1

FoodEx2

Code	Name	f1	f2	f3
A03TK	Almond drink	1	0.023	1

Production of coffee extracts

FoodEx1

Code	Name	f1	f2	f3
A.13.03.001	Coffee drink, espresso	1.19	0.143	1
A.13.03.002	Coffee drink, americano	1.19	0.056	1

FoodEx2

Code	Name	f1	f2	f3
A03KB	Coffee espresso (beverage)	1.19	**0.2**	1
A167A	Coffee (strong) beverage	1.19	**0.058**	1
A03KC	Coffee (average strength) beverage	1.19	**0.053**	1
A03KD	Coffee (weak strength) beverage	1.19	**0.035**	1

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EXAMPLE: HIGHER ACCURACY

Production of wine and wine vinegar

Code	Name	f1	f2	f3
A.14.02	Wine (unspecified)	1.43	1	1
A.14.02.001	Wine, white	1.43	1	1
A.14.02.002	Wine, white, sparkling	1.43	1	1
A.14.02.003	Wine, red	1.43	1	1
A.14.02.004	Wine, red, sparkling	1.43	1	1

Code	Name	f1	f2	f3
A03MT	Wine (unspecified)	1.43	1	1
A03MV	Wine, white	1.43	1	1
A03MX	Wine, red	1.43	1	1
A03MY	Wine, rosé	1.43	1	1
A03MZ	Sparkling wine (unspecified)	1.43	1	1
A03NA	Champagne-like wine	1.43	1	1
A03NB	Red or rosé sparkling wine	1.43	1	1

FoodEx1 → **FoodEx2**

Production of baked products

FoodEx1

Code	Name	f1	f2	f3
A.01.07.002	Biscuits (cookies)	1	0.6	1

FoodEx2

Code	Name	f1	f2	f3
A0BYR	**Wafers**	1	0.6	1

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Production of wine and wine vinegar

FoodEx1

Code	Name	f1	f2	f3
14.03	Fortified and liqueur wines (e.g. Vermouth, Sherry, Madeira) (unspecified)	1.43	0.8	1

FoodEx2

Code	Name	f1	f2	f3
A03NL	**Port**	1.43	0.8	1

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TAKE HOME MESSAGES

- The translation makes the exposure assessment through FoodEx2 more detailed

- Occasion for revising FoodEx1 technical conversion factors systematically