

Article 4 Request
Regulation (EU) 2015/2283

Recipient Member State: Ireland, Food Safety Authority of Ireland (FSAI).

Name of the Foods: 'Selenium enriched mushrooms (*Agaricus bisporus*)' and 'Vitamin B12 enriched mushrooms (*Agaricus bisporus*)'

Date: 23/12/2022

Description of the foods

'Selenium enriched mushrooms (*Agaricus bisporus*)' are commercially grown button mushrooms with standardised levels of selenium. The production process includes the addition of sodium selenite to the compost via the watering regime which is then converted into organic selenium which bioaccumulates in the mushrooms. The proposed selenium content will range from 49 to 80 µg per 100 g of fresh mushrooms.

'Vitamin B12 enriched mushrooms (*Agaricus bisporus*)' are commercially grown button mushrooms with standardised levels of vitamin B12. The production process includes the addition of cyanocobalamin, a form of vitamin B12, to the compost via the watering regime for the natural uptake by the mushrooms. The proposed vitamin B12 content will range from 2.5 to 3.8 µg per 100 g of fresh mushrooms.

Novel or Not Novel

The FSAI considers that 'Selenium enriched mushrooms (*Agaricus bisporus*)' and 'Vitamin B12 enriched mushrooms (*Agaricus bisporus*)' are **not novel**.

A 2019 Article 4 request submitted to the UK (prior to Brexit) concluded that these enriched mushrooms were novel foods. However, this decision was reversed by the UK in June 2022 (<https://www.food.gov.uk/business-guidance/outcomes-on-novel-food-consultations>).

Reasons why the enriched mushrooms are not novel

The practice of nutritionally supplementing crops growing substrates is long-standing. As an example, in 1984 a decision was made by the Finnish government to supplement compound fertilizers used for cereal and grass production with selenium in the form of sodium selenate (Eurola, 2022).

In addition, evidence was provided that shows that (i) the proposed level of selenium in the enriched mushrooms is in the same range as that reported for commercially available mushrooms on the EU market prior to 1997 and (ii) the proposed level of vitamin B12 in the enriched mushrooms is in the same range as that reported for commercially available mushrooms on the EU market in the 1980's which were grown on a mixture of horse/chicken manure and wheat straw compost.

Appropriate Novel Food Category

Not applicable.