

14th February 2020

To: Food Standards Australia New Zealand

Submission on Application A1186 – soy leghemoglobin in meat analogue products

Fart Free is pleased to make a submission on application **A1186 – soy leghemoglobin in meat analogue products**. Fart Free agrees with FSANZ's view that Impossible Foods has provided sufficient data to support the stability of soy leghemoglobin in the food matrix. Fart Free supports the application and would like to see the Impossible Foods product successfully launched in New Zealand and Australia in the future.

Significant testing and analyses from Governments, Impossible Foods and independent experts has shown soy leghemoglobin to be safe for human consumption

We note that Impossible Foods has been producing soy leghemoglobin for a number of years and has sold product with the ingredient in it for over three years now with no reported issues from consumers. The ingredient has undergone significant testing both by Impossible Foods and a number of independent laboratories and experts. The results of these tests are outlined in Impossible Foods' submission. The overwhelming scientific and anecdotal evidence is clear that soy leghemoglobin does not pose any risk for human consumption.

Several international food safety authorities have already concluded that soy leghemoglobin is safe for human consumption. In most cases, the authorities conducted their own independent analysis on the data that was supplied by Impossible Foods.

- The United States FDA had a number of questions for Impossible Foods regarding their *Generally Recognized as Safe* status. These questions related principally to allergy and toxicity. The questions were answered by independent Drs Steve Taylor and Richard Goodman.
- The Singaporean Food Agency (the organisation that replaced the Agri-Food and Veterinary Authority in 2018) approved the use of soy leghemoglobin in food in August 2018.
- Health Canada concluded that soy leghemoglobin is safe for human consumption following strict regulatory scrutiny in 2019.
- Based on approvals from the United States and Singapore, Hong Kong and Macao approved soy leghemoglobin for use in food.

FSANZ has conducted a comprehensive assessment combining information provided by the applicant with independent sources. The FSANZ analysis notes that there were no significant similarities to

known allergens or toxins. This aligns with the body of independent scientific knowledge and a number of analyses and evidence supplied by Impossible Foods' experts.

Significant environmental benefits stem from eating and producing plant-based foods

Impossible Foods has outlined the environmental benefits of plant-based foods compared with animal-based foods. Environmental concerns around intensive animal farming production was the original reason that Pat Brown created Impossible Foods. Cropping or mixed farming systems have been shown to have a much lighter environmental footprint than intensive livestock farming.

A successful launch of the Impossible Foods product in New Zealand and Australia could lead to the development of additional plant-based foods and food ingredient development in New Zealand and Australia.

Facilitating the development of new plant-based ingredients is something that Fart Free is interested in. Having Impossible Foods selling product in New Zealand and Australia offers potential opportunities for partnering with ingredients and could lead to tangible change to the farming sector.

Process for creating soy leghemoglobin has been used for decades in food processing

Impossible Food has outlined the process that is used to produce the soy leghemoglobin on its website and the process is briefly outlined in the FSANZ documentation. Soy leghemoglobin is a component of a cell lysate preparation from a genetically modified (GM) yeast, *Pichia pastoris*. This yeast has been modified to express the leghaemoglobin gene from soybean (*Glycine max*) and other host proteins that support its expression. The use of genetically engineered yeast to produce enzymes and ingredients for food has been widespread in the food industry for decades. An example of this is rennet (chymosin) used to make cheese. A significant percentage of cheese globally is now made using rennet produced by genetically modified yeast.

Fart Free supports application A1186 – soy leghemoglobin in meat analogue products

In closing, it is clear that the scientific evidence assembled by Impossible Foods and independently verified by FSANZ supports Impossible Food's application.

Kind regards,

General Manager

Fart Free Limited