

# VOW CULTURED QUAIL

## EXECUTIVE SUMMARY

### FOOD STANDARDS AUSTRALIA NEW ZEALAND

**Submitted by:**

Vow Group Pty Ltd



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Vow Group Pty Ltd (Vow) is submitting this application to amend the Australia New Zealand Food Standards Code to allow for the use of cultured quail as an ingredient in food.

Cultured quail is Vow's first commercial product manufactured using a novel process to grow meat without harming animals. Vow intends to market products formed using cultured quail as a food ingredient, to restaurants to be used in high quality dishes at limited serving sizes. Instructions will be provided to restaurants for safe storage and recommended cooking temperature (minimum of 72°C). Vow cultured quail is not anticipated to serve as a substantial substitute for any food group or type of protein. The intended use of Vow cultured quail is as an ingredient with a maximum of 300 g of cultured quail per dish, mixed with other authorised food ingredients. Even for high-intake consumers, consumption levels are anticipated to be about the same as current consumption for quail, and lower than that for other poultry, such as chicken.

The conclusion that Vow cultured quail is safe for human consumption is based on a thorough safety assessment. The safety demonstration strategy considers the similarity of Vow cultured quail to conventional meat, which has a long history of safe consumption in Australia and around the globe. Additionally, a detailed evaluation of the inputs and raw materials used to manufacture Vow cultured quail, including supporting test data for residues, finds all ingredients are safe. The cells grow within bioreactors but become non-viable and stop growing shortly after harvest. Similar to conventional meat, the cells are not viable when served to the consumer. Further, an assessment of the manufacturing process and stability of the cell line, as well as the implementation of quality control measures resulting in a consistent and safe product, all contribute to the demonstration of the safety of cultured quail.

A well-characterised continuously growing quail cell line was obtained without the use of genetic modification techniques. Cultured quail is confirmed to be *Coturnix japonica*, is similar in composition to conventional quail, and is a stable cell line that does not produce any toxins, anti-nutrients, or allergens. There are no differences in gross composition that are expected to pose a food consumption hazard.

After cell-line development, Vow cultured quail is manufactured without the use of any animal-derived additives and antibiotics. A comprehensive review using a conservative risk assessment approach of the inputs, including cell media, additives, cryoprotectants, and cleaners, demonstrates that the additives are not present at high levels in the final product, and are not anticipated to pose a food consumption hazard at the proposed dietary levels.

The final cultured quail product was tested for microbiological and chemical contamination and determined to be free of food pathogens, heavy metals, and antibiotics. Allergenicity testing demonstrates that there are no major allergenic proteins.

Based on the similarity of Vow cultured quail to conventional *C. japonica*, a long history of safe consumption of quail, and a thorough risk analysis of inputs, cells, manufacturing process, and residues presented in this dossier, it is concluded that Vow cultured quail is non-pathogenic, non-toxic, and is safe for use as an ingredient in food, under the intended conditions of use and at the estimated dietary intake levels described in this dossier.

The approval of cultured quail by FSANZ will provide consumers access to a novel alternative to conventional meat.