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Application to Amend the Food Standards Code – Food Produced Using Gene Technology

OECD Unique Identifier - DP-202216-6

DP202216 Maize

Executive Summary

Submitting company:

Dow AgroSciences Australia Pty Ltd

Submitted by:

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Summary

Corteva Agriscience is a publicly traded, global pure-play agriculture company that provides farmers around the world with the most complete portfolio in the industry - including a balanced and diverse mix of seed, crop protection and digital solutions focused on maximizing productivity to enhance yield and profitability. With some of the most recognized brands in agriculture and an industry-leading product and technology pipeline well positioned to drive growth, the company is committed to working with stakeholders throughout the food system as it fulfils its promise to enrich the lives of those who produce and those who consume, ensuring progress for generations to come. Corteva Agriscience became an independent public company on June 1, 2019 and was previously the Agriculture Division of DowDuPont. More information can be found at www.corteva.com.

Dow AgroSciences Australia, member of Corteva Agriscience group of companies, is submitting this application to FSANZ to vary the Code to approve uses of maize (*Zea mays L.*) event DP-202216-6 (referred to as DP202216 maize), a new food produced using gene technology.

DP202216 maize was genetically modified to increase and extend expression of the *zmm28* gene relative to the native *zmm28* gene expression. Both the introduced and native *zmm28* genes encode the *ZMM28* protein, a MADS-box transcription factor. The increased and extended expression of the *ZMM28* protein results in plants with an enhanced grain yield potential. DP202216 maize also contains the phosphinothricin acetyltransferase (PAT) protein, which confers tolerance to the herbicidal active ingredient glufosinate-ammonium at current labeled rates. The PAT protein present in DP202216 maize is identical to the corresponding protein found in several approved events across several different crops that are currently in commercial use.

This application presents information supporting the safety and nutrition of DP202216 maize. The molecular characterization analyses conducted on DP202216 maize demonstrated that the introduced genes are integrated at a single locus, stably inherited across multiple generations, and segregate according to Mendel's law of genetics. The *ZMM28* protein is endogenous to maize, including sweet corn, and is present in food. The introduced *ZMM28* protein in DP202216 maize is identical to the native *ZMM28* protein in DP202216 maize and to the *ZMM28* protein in non-genetically modified (non-GM) maize. A compositional equivalence assessment demonstrated that the nutrient composition of DP202216 maize grain is comparable to that of non-GM maize.

Overall, DP202216 maize, containing the *ZMM28* and PAT proteins is as safe and nutritious as non-GM maize varieties for food and feed uses.