

SUMMARY

Corteva, Inc. is a publicly traded, global pure-play agriculture company that combines industry-leading innovation, high-touch customer engagement and operational execution to profitably deliver solutions for the world's most pressing agriculture challenges. Corteva generates advantaged market preference through its unique distribution strategy, together with its balanced and globally diverse mix of seed, crop protection, and digital products and services. With some of the most recognized brands in agriculture and a technology pipeline well positioned to drive growth, the company is committed to maximizing productivity for farmers, while working with stakeholders throughout the food system as it fulfills its promise to enrich the lives of those who produce and those who consume, ensuring progress for generations to come. More information can be found at www.corteva.com.

Corteva Agriscience Australia Pty Ltd, member of Corteva Agriscience group of companies, is submitting this application to FSANZ to vary the Code to approve food uses of insect-resistant and herbicide-tolerant maize (*Zea mays* L.) event DP-91Ø521-2 (referred to as DP910521 maize), a new food produced using gene technology.

DP910521 maize was genetically modified to express the Cry1B.34 protein for protection against certain susceptible lepidopteran pests, the phosphinothricin acetyltransferase (PAT) protein for tolerance to glufosinate herbicide, and the phosphomannose isomerase (PMI) protein that was used as a selectable marker. The Cry1B.34 protein is presented to FSANZ for review for the first time. The PAT and PMI proteins present in DP910521 maize are found in several approved events that are currently in commercial use.

This application presents information supporting the safety and nutritional comparability of DP910521 maize. The molecular characterization analyses conducted on DP910521 maize demonstrate 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 allergenic and toxic potential of the Cry1B.34 protein was evaluated, and the Cry1B.34 protein was found unlikely to be allergenic or toxic to humans.

The allergenic and toxic potential of the PAT and PMI proteins was evaluated previously, and these proteins were found unlikely to be allergenic or toxic to humans. The updated bioinformatics analyses for the PAT and PMI proteins are referenced to Corteva's two recent applications currently under evaluation (A1270 and A1272). The results confirm the PAT and PMI proteins as unlikely to cause an adverse effect on humans.

Based on the weight of evidence, consumption of the Cry1B.34, PAT or PMI proteins in DP910521 maize is unlikely to cause an adverse effect on humans. A compositional equivalence assessment demonstrated that the nutrient composition of DP910521 maize grain is comparable to that of conventional maize, represented by non-genetically modified (non-GM) near-isoline maize and non-GM commercial maize.

Overall, data and information contained herein support the conclusion that DP910521 maize containing the Cry1B.34, PAT, and PMI proteins is as safe and nutritious as non-GM maize.