

To the Minister for the
Environment
drs. V.L.W.A. Heijnen
Postbus 20901
2500 EX Den Haag

DATE 14 July 2023
REFERENCE CGM/230714-03
SUBJECT Import and processing of GM cotton T304-40 x GHB119 x COT102

Dear Minister,

COGEM was requested to evaluate the environmental risks associated with import of genetically modified (GM) cotton T304-40 x GHB119 x COT102 (EFSA/GMO/BE/2018/155) for use in food and feed, as submitted by Bayer CropScience LP. This stacked event has been created by conventional crossing of three GM parental lines.

COGEM has previously advised positively on the import and processing of all three parental lines,^{1,2,3} as well as on the import and processing of several stacked events of the parental lines under assessment, including T304-40 x GHB119.⁴

The GM cotton in the present application expresses the *bar*, *cry1Ab*, *cry2Ae*, *vip3Aa19*, and *aph4* genes. T304-40 x GHB119 x COT102 is resistant to certain lepidopteran insects, and tolerant to glufosinate-ammonium containing herbicides.

Cotton is highly temperature sensitive and susceptible to frost.^{5,6,7,8} The Dutch climate has a higher number of frost days than optimal for growth and maturation of cotton, and temperatures are consistently lower than required.^{8,11,9,10} Cultivation is not possible in the Netherlands and feral cotton populations do not occur. Moreover, wild relatives of cotton are not present in the Netherlands and hybridisation with other species is thus not possible.⁸

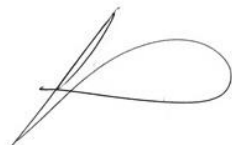
COGEM notes that the *aph4* gene confers resistance to the antibiotic hygromycin B. Hygromycin B has been classified as a group I antibiotic resistance gene, which indicates that it is extremely unlikely that the presence of this gene in cotton will affect human or animal health, or that it will impact the already existing spread of antibiotic resistance genes in the environment.¹¹ Moreover, this application solely concerns the import of T304-40 x GHB119 x COT102. COGEM is of the opinion that the presence of *aph4* in the GM cotton poses a negligible risk to the environmental

risks to the Dutch environment.³ However, as mentioned previously, COGEM notes that the presence of antibiotic resistance genes, such as *aph4*, may be considered undesirable in view of public perception.³

The bio-informatic analysis of cotton T304-40 x GHB119 x COT102 was performed using the most current databases available at the time of submission of this application. The introduced traits in cotton T304-40 x GHB119 x COT102 will not allow the GM cotton to survive in the Dutch environment. COGEM has published several recommendations for further improvement of the general surveillance (GS) plan^{12,13} but considers the current GS plan adequate for import and processing of GM cotton T304-40 x GHB119 x COT102.

COGEM is of the opinion that import and processing of cotton T304-40 x GHB119 x COT102 poses a negligible risk to the Dutch environment. COGEM abstains from giving advice on the potential risks of incidental consumption, as a food/feed assessment is carried out by other organisations.

Yours sincerely,



Prof. dr. ing. Sybe Schaap
Chair of COGEM

- c.c.
- Drs. Y de Keulenaar, Hoofd Bureau ggo
 - Ministerie van IenW, Directie Omgevingsveiligheid en milieurisico's, DG Milieu en Internationaal
 - Ing. M.A.C. Möllers, Food-Feed loket

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