

Comments from The Norwegian Scientific Committee for Food and Environment (VKM) on EPA+DHA Canola Event LBFLFK (Application EFSA-GMO-DE-2019-157)

Food and feed safety assessment

VKM welcomes information on herbicide residue levels and their relevant metabolites in applications for herbicide tolerant GM-plants. Data on imazamox residue levels, including relevant metabolites (hydroxymethyl metabolite CL 263284 and its glucose conjugate CL 189215), in plant material from the field studies would support the assessment of food, feed, and environmental safety.

Monitoring

Given the scope of the application, accidental spillage and loss of viable seeds of genetically modified EPA+DHA canola event LBFLFK during transport, storage, handling, and processing into derived products cannot be precluded.

Oilseed rape can establish feral populations outside cultivated areas (e.g. roadsides, railway ground, ports) and escaped populations of herbicide-tolerant oilseed rape have been reported along transportation routes, ports and close to processing plants in Japan, Canada and USA (Yoshimura et al., 2006; Knispel et al., 2008; Nishizawa et al., 2009, 2016; Schafer et al., 2011). Feral transgenic oilseed rape is also detected along railway lines in Switzerland (Hecht et al., 2014) and near oil mills in Germany (Franzaring et al., 2016).

Germination and establishment of volunteer LBFLFK plants may result in gene flow into cultivated and feral *Brassica napus* as well as into closely related wild relatives (Knispel et al., 2008; Schafer et al., 2011).

The magnitude of establishment, dissemination and gene flow depends among others on the level of LBFLFK canola in the imported oilseed rape commodities. Therefore, case-specific monitoring must focus on pathways where viable LBFLFK canola enters the environment.

The applicant is requested to provide an appropriate case-specific monitoring plan comprising: i) spillage or loss of LBFLFK canola during transport, storage, packaging, processing and use, ii) spread and persistence of LBFLFK canola, if spillage or loss of viable LBFLFK canola occurs, iii) out-crossing of LBFLFK canola to cultivated and feral/naturalized oilseed rape populations and wild relatives resulting from spillage or loss of viable LBFLFK canola.

References

Franzaring J, Wedlich K, Eckert S, Zipperle J, Krah-Jentgens I, Hünig C, Züghart (2016) Exploratory study on the presence oilseed rape near German oil mills. *Environ Sci Pollut Res* 23: 23300-23307

Hecht M, Oehen B, Schulze J, Brodmann P, Bagutti (2014) Detection of feral GT73 oilseed rape (*Brassica napus*) along factories in Switzerland. *Environ Sci Pollut Res* 21: 1455-1465

Knispel AL, McLachlan SM, Van Acker RC, Friesen LF (2008) Gene Flow and Multiple Herbicide Resistance in Escaped Canola Populations. *Weed Science*, 56(1):72-80

Nishizawa T, Nakajima N, Aono M, Tamaoki M, Kubo A, Saji H (2009) Monitoring the occurrence of genetically modified oilseed rape growing along a Japanese roadside: 3-year observations. *Environmental Biosafety Research* 8: 33-44

Nishizawa T, Nakajima N, Tamaoki M, Kubo A, Aono M, Kubo A, Saji H (2016) Fixed-route monitoring and comparative study of the occurrence of herbicide-resistant oilseed rape (*Brassica napus* L.) along a Japanese roadside. *GM Crops & Food* 7: 20-37

Schafer MG, Ross AA, Londo JP, Burdick CA, Lee EH, et al. (2011) The Establishment of Genetically Engineered Canola Populations in the U.S. *PLoS ONE* 6(10): e25736. doi:10.1371/journal.pone.0025736

Yoshimura Y, Beckie HJ and K Matsuo (2006) Transgenic oilseed rape along transportation routes and port of Vancouver in western Canada. *Environmental Biosafety Research* 5: 67-7
