Updated November 2024

Advisory Committee on Releases to the Environment

Advice on applications to market genetically modified (GM) food or feed in England

This advice applies to the applications listed below. The applications are for the consumption, importation, and/ or processing of food and/ or feed consisting of, made from, or containing a GM organism where the crop from which the food or feed is derived has a limited potential to grow in climatic conditions in England.

As the applications are for GMOs to be used as food and, or feed products, they will not be authorised unless the applicant has demonstrated that the GMOs in question are as safe as their non-GM equivalents in terms of food and feed safety. However, it is not within ACRE's remit to consider food or feed safety; this is the responsibility of the Food Standards Agency. It is ACRE's responsibility to assess the potential environmental impacts of the GMOs rather than food or feed processed from them. Consequently, this advice concerns the environmental risk assessment and post-market environmental (PMEM) monitoring components of the applications listed below.

Environmental risk assessment

The applications listed below are for GM food and/ or feed products where the genetic modification does not increase the crop's ability to establish and persist under climatic conditions in England. In the case of the GMOs listed below, a very small proportion of seeds, grain or tubers, if spilt during transport and processing, could potentially germinate and produce plants. However, these plants are very unlikely to flower. Plants that do not flower cannot pollinate other plants or set seed themselves. This restricts environmental exposure. The crops listed below do not have sexually compatible wild relatives in England. GM crops that have been processed into food or feed products do not pose an environmental risk as they cannot germinate. ACRE has assessed each of the applications listed below on a case-by-case basis, including consideration of the following:

- the ability of reproductive material such as seed, grain or tubers to germinate and establish if spilled during transportation and processing (this is a crucial aspect in terms of the environmental protection because the potential environmental risk posed by the GMO is a function of any hazards it presents to the environment and the exposure of the environment to these hazards)

- whether the genetic modification alters the ability of the crop to survive and persist

- potential pathways to environmental exposure, for example decomposing food, feed or reproductive material that may be spilled during transportation or processing or

transgene-encoded proteins that might remain in manure and faeces from animals fed these GMOs

- the theoretical possibility that environmental exposure to GM proteins could increase if the transgenes encoding the proteins transferred to and were expressed by soil bacteria. [ACRE's view is that horizontal gene transfer (HGT) between plants and soil bacteria under field conditions is a very rare phenomenon.] However, our approach is to assume that HGT of transgenes may occur and to consider the consequences

Post-market monitoring plans

Applications to market GMOs with a limited ability to germinate must include a PMEM plan, of which there are two components:

1. Case-specific monitoring: the aim of this is to confirm that any assumption in the environmental risk assessment regarding the occurrence and impact of potential adverse effects of the GMO or its use is correct. Due to the lack of any significant environmental exposure, ACRE considers that for applications covered by this advice there is no requirement for case-specific monitoring in England, unless specifically stated.

2. General surveillance: the objective is to ascertain the occurrence of adverse effects of the GMO or its use on human health and the environment that were not anticipated in the environmental risk assessment. Unless stated, ACRE recommends that PMEM plans should include: (1) precisely who will be requested to provide information; (2) what type of information will be requested and the frequency of requests; and (3) how the applicant will ensure participation to ensure a robust assessment.

Tabe: Applications

Reference	**Food type**	**Event**	**Applicant**	**Advice and date**
RP188	Soybean	A5547-127 Herbicide tolerant	BASF	No safety concerns identified 25/04/2023
RP212	Soybean	MON 40-3-2 Herbicide tolerant	Bayer	No safety concerns identified 25/04/2023
RP652	Maize	MIR162	Syngenta	No safety concerns identified

		Insect resistant		25/04/2023
RP1506	Maize	DP4114 x MON810 x MIR604 x NK603 Insect resistant Herbicide tolerant	Pioneer Overseas Corportation	No safety concerns identified 25/07/2023
RP1123	Soybean	GMB151 Insect resistant Herbicide tolerant	BASF Agricultural Solutions Seed US LLC	No safety concerns identified 07/11/2023
RP1274	Maize	3272 Thermostable alpha amylase	Syngenta Crop Protection	No safety concerns identified 07/11/2023
RP1791	Maize	NK603 x T25 x DAS-40278-9 Herbicide tolerant	Pioneer Overseas Corporation	No safety concerns identified 07/11/2023
RP1868	Maize	MON95379 Insect resistant	Bayer Agriculture BV	No safety concerns identified 07/11/2023
RP1962	Maize	MON87429 Herbicide tolerant	Bayer Agriculture BV	No safety concerns identified 07/11/2023
RP1565	Soybean	MON 87701 Insect resistant	Bayer CropScience LP	No safety concerns identified 07/06/2024
RP1566	Soybean	MON 87701 x MON 89788 Insect resistant Herbicide tolerant	Bayer CropScience LP	No safety concerns identified 07/06/2024

RP2023	Maize	GA21 x T25 Herbicide tolerant	Syngenta Crop Protection	No safety concerns identified 14/11/2024