Animal and Plant Health Agency

APHA Genetic Modification Inspectorate

Growing season field inspection report: consent 19/R52/02 (2021 release)

A report of a field inspection visit to an experimental genetically modified (GM) crop trial to assess compliance with Part VI of the Environmental Protection Act 1990 and the Genetically Modified Organisms (Deliberate Release) Regulations 2002.

GMO consent details

Consent reference: 19/R52/02 ('Part B' consent)

Holder of the consent: John Innes Centre

Crop type: Wheat (*Triticum aestivum*)

Site details: Norwich Research Park, Norwich.

OS Reference: TG 179 075

Details of the GMO: The genetically modified organisms (GMOs) consist of wheat plants transformed with a DNA sequence encoding an iron transporter (vacuolar iron transporter II; *Ta VIT2*) from wheat. The plants may also contain antibiotic resistance marker genes: *hygromycin phosphotransferase* from the bacterium *Escherichia coli* (which includes a CAT-1 intron from the plant *Ricinus communis*), and *neomycin phosphotransferase I* from the bacterium *Escherichia coli*.

Purpose of the release: To investigate the ectopic over-expression of the wheat vacuolar iron transporter gene (*TaVIT2-D*) in the endosperm of wheat grains and to determine its effect on micronutrient accumulation and agronomic performance in the field.

Site inspection details

Inspection date: 14/07/2021

Site reference: JIC-19/R52/02-SITE01-2021-INSP_01

Staff seen: Consent Holder; Principal Investigator.

Inspection details: The Genetic Modification Inspectorate carried out an inspection of this 2021-planted research trial of GM wheat at the post-flowering stage. Checks were made on: the location, size and layout of the trial; the methods employed for planting;

management of the release during the growing season; and the Consent Holder's plans for harvesting and disposal of plant material. All were in accordance with the requirements specified in the consent. In addition checks were made on the arrangements in place for monitoring the release during the period of cultivation and during the post-trial period. Examination of monitoring records revealed that, on one occasion in the 16 weeks from planting to the inspection, the requirement for the Consent Holder to inspect the trial site and the 20m border at least once a week during the period of cultivation was not fully met. This was brought to the attention of the Consent Holder and the circumstances surrounding the oversight were discussed (inadvertently, no replacement sought during May half-term holidays), as was the interpretation of the consent conditions (with advice provided by the Defra Genetic Resources & GM Policy Team). Following this the Consent Holder agreed to put in place additional measures to maintain an appropriate frequency of monitoring in the future.

Conclusions and actions

Report conclusions: The Genetic Modification Inspectorate is content that the management of release is consistent with the conditions and limitations specified in the consent, and that, following a missed monitoring visit, appropriate measures have been implemented to ensure that the frequency of monitoring complies with the conditions of the consent. No risks to human health or the environment, posed by the genetically modified organism, were identified.

Action required/ taken: Following the finding that a Consent Holder monitoring visit had been missed, the Genetic Modification Inspectorate and the Consent Holder discussed the circumstances surrounding the oversight, along with the appropriate interpretation of the wording of the relevant consent conditions. In light of this the Consent Holder agreed to put in place additional measures to ensure that the trial site and the 20m border are inspected at least once per calendar week during the period of cultivation of GMOs.

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