APHA Genetic Modification Inspectorate

Growing season inspections of Rothamsted Research GM camelina releases (under 2018 & 2019 consents), 25 June 2019

Growing season field inspection report: consent 18/R8/01 (2019 release) 1

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: 18/R8/01 ('Part B' consent)

Consent holder: Rothamsted Research

Crop type: Camelina sativa (camelina, gold-of-pleasure, or false flax)

Site details: Harpenden, Hertfordshire

OS Reference: TL 120 131

Details of the GMO: Camelia plant lines containing genetic elements carried on binary vectors pSUN2 or pRS-3G. The GM lines contain one or more of the fourteen DNA constructs developed using these vectors, and described in consent 18/R8/01.

Purpose of the release: Research trial to determine the agronomic performance and seed oil yield of transgenic camelina plants engineered to accumulate non-native lipids in their seed oils, and to evaluate transgene-derived traits which deliver improvements to plant architecture or metabolism.

Site inspection details

Inspection date: 25/06/2019

Site reference: 18/R8/01-01 ['CM/1960'].

Staff seen: Head of Farms and Estates

Inspection details: The Genetic Modification Inspectorate carried out a pre-flowering inspection of this 2019-sown research trial of GM camelina plants, released under consent 18/R8/01. Checks were made on the size and layout of the GM plots, the arrangements in place for growing-season monitoring, and plans for harvesting and post-harvest monitoring. All were in accordance with the requirements specified by the consent.

The consent holder had opted to sow a pollen barrier; however, during the inspection visit it was determined that the stand density was below the minimum specified by the consent. The consent holder will therefore implement a separation distance of at least 50 metres from any wild or cultivated camelina species, as per the consent requirements. The inspection confirmed that the consent holder has appropriate protocols in place to ensure the required separation distance is maintained.

Conclusions and actions

Report conclusions: The Genetic Modification Inspectorate is content that the release is consistent with the conditions and limitations specified by the consent. No risks to human health or the environment, posed by the genetically modified organism, were identified.

Action taken: None

Growing season field inspection report: consent 18/R8/01 (2019 release) 2

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: 18/R8/01 ('Part B' consent)

Consent holder: Rothamsted Research

Crop type: Camelina sativa (camelina, gold-of-pleasure, or false flax)

Site details: Harpenden, Hertfordshire

OS Reference: TL 120 130

Details of the GMO: Camelia plant lines containing genetic elements carried on binary vectors pSUN2 or pRS-3G. The GM lines contain one or more of the fourteen DNA constructs developed using these vectors, and described in consent 18/R8/01.

Purpose of the release: Research trial to determine the agronomic performance and seed oil yield of transgenic camelina plants engineered to accumulate non-native lipids in their seed oils, and to evaluate transgene-derived traits which deliver improvements to plant architecture or metabolism.

Site inspection details

Inspection date: 25/06/2019

Site reference: 18/R8/01-02 ['CM/1973'].

Staff seen: Head of Farms and Estates

Inspection details: The Genetic Modification Inspectorate carried out a pre-flowering inspection of this 2019-sown research trial of GM camelina plants, released under consent 18/R8/01 Checks were made on the size and layout of the GM plots, the arrangements in place for growing-season monitoring, and plans for harvesting and post-harvest monitoring. All were in accordance with the requirements specified by the consent.

The consent holder had opted to sow a pollen barrier; however, during the inspection visit it was determined that the stand density was below the minimum specified by the consent. The consent holder will therefore implement a separation distance of at least 50 metres from any wild or cultivated camelina species, as per the consent requirements. The

inspection confirmed that the consent holder has appropriate protocols in place to ensure the required separation distance is maintained.

Conclusions and actions

Report conclusions: The Genetic Modification Inspectorate is content that the release is consistent with the conditions and limitations specified by the consent. No risks to human health or the environment, posed by the genetically modified organism, were identified.

Action taken: None

Growing season field inspection report: consent 18/R8/01 (2019 release) 3

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: 18/R8/01 ('Part B' consent)

Consent holder: Rothamsted Research

Crop type: Camelina sativa (camelina, gold-of-pleasure, or false flax)

Site details: Brooms Barn, Suffolk

OS Reference: TL 758 658

Details of the GMO: Camelia plant lines containing genetic elements carried on binary vectors pSUN2 or pRS-3G. The GM lines contain one or more of the fourteen DNA constructs developed using these vectors, and described in consent 18/R8/01.

Purpose of the release: Research trial to determine the agronomic performance and seed oil yield of transgenic camelina plants engineered to accumulate non-native lipids in their seed oils, and to evaluate transgene-derived traits which deliver improvements to plant architecture or metabolism.

Site inspection details

Inspection date: 25/06/2019

Site reference: 18/R8/01-03 ['CM/1974'].

Staff seen: Head of Farms and Estates

Inspection details: The Genetic Modification Inspectorate carried out a pre-flowering inspection of this 2019-sown research trial of GM camelina plants, released under consent 18/R8/01. Checks were made on the size and layout of the GM plots and non-GM pollen barrier, the arrangements in place for growing-season monitoring, and plans for harvest, disposal, and post-harvest monitoring. All were in accordance with the requirements specified in the consent.

Conclusions and actions

Report conclusions: The Genetic Modification Inspectorate is content that the release is consistent with the conditions and limitations specified by the consent. No risks to human health or the environment, posed by the genetically modified organism, were identified.

Action taken: None

Growing season field inspection report: consent 19/R8/01 (2019 release) 4

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/R8/01 ('Part B' consent)

Consent holder: Rothamsted Research

Crop type: Camelina sativa (camelina, gold-of-pleasure, or false flax)

Site details: Harpenden, Hertfordshire

OS Reference: TL 120 131

Details of the GMO: Genetically modified (GM) Camelina sativa plant lines that contain or were developed using some or all of the fragments of DNA described in Part A1(12) of application 19/R8/01.

Purpose of the release: Research trial to determine the agronomic performance and seed oil yield of transgenic C. sativa plants engineered to accumulate non-native lipids in their seed oils, or to exhibit a variation in the accumulation of native fatty acids.

Site inspection details

Inspection date: 25/06/2019

Site reference: 19/R8/01-01 ['CM/1960'].

Staff seen: Head of Farms and Estates

Inspection details: The Genetic Modification Inspectorate carried out an inspection of this 2019-sown research trial of GM camelina plants, released under consent 19/R8/01 Checks were made on the size and layout of the GM plots, the arrangements in place for growing-season monitoring, and plans for harvesting and post-harvest monitoring. All were in accordance with the requirements specified by the consent.

The consent holder had opted to sow a pollen barrier; however, during the inspection visit it was determined that the stand density was below the minimum specified by the consent. The consent holder will therefore implement a separation distance of at least 50 metres from any wild or cultivated camelina species, as per the consent requirements. The inspection confirmed that the consent holder has appropriate protocols in place to ensure the required separation distance is maintained.

Conclusions and actions

Report conclusions: The Genetic Modification Inspectorate is content that the release is consistent with the conditions and limitations specified by the consent. No risks to human health or the environment, posed by the genetically modified organism, were identified.

Action taken: None