Australian Government
Department of Health and Aged Care
Office of the Gene Technology Regulator

Licence for dealings involving an intentional release of a GMO into the environment

Licence number: DIR 212

Licence holder: The University of Adelaide

Limited and controlled release of canola genetically modified for increased photosynthesis and photorespiration

Issued: 21 May 2025

Office of the Gene Technology Regulator

Gene Technology Regulation in Australia

Australia's gene technology regulatory system operates as part of an integrated legislative framework. The *Gene Technology Act 2000* (Cth) (the Act) and corresponding state and territory legislation form part of a nationally consistent regulatory system controlling activities involving genetically modified (GM) organisms.

This licence is issued by the Gene Technology Regulator (the Regulator) in accordance with the Act and, as applicable, corresponding State law.

The Regulator is required to consult with, and take into account advice from, a range of key stakeholders, including other regulatory authorities, on risks to human health and safety and to the environment in assessing applications for dealings involving the intentional release of GM organisms into the Australian environment.

Other agencies that also regulate GM organisms or GM products include Food Standards Australia New Zealand, Australian Pesticides and Veterinary Medicines Authority, Therapeutic Goods Administration, Australian Industrial Chemicals Introduction Scheme and the Department of Agriculture, Fisheries and Forestry. Dealings conducted under any licence issued by the Regulator may also be subject to regulation by one or more of these agencies. It is recommended that the licence holder consult the relevant agency (or agencies) about their regulatory requirements.

Dealings permitted by this licence may also be subject to the operation of State legislation recognising areas as designated for the purpose of preserving the identity of GM crops, non-GM crops, or both GM crops and non-GM crops, for marketing purposes.

Further Information on Licence DIR 212

More information about the decision to issue this licence is contained in the Risk Assessment and Risk Management Plan prepared in connection with this licence. This document can be obtained from the Office of the Gene Technology Regulator (OGTR) website or by telephoning the Office on 1800 181 030.

Information about where the GMOs have been planted pursuant to this licence can be accessed on the OGTR website.

Section 1 Interpretations and Definitions

1. In this licence:

   (a) unless defined otherwise in this licence, words and phrases used in this licence have the same meaning as they do in the Act and the Regulations;

   (b) words importing a gender include every other gender;

   (c) words in the singular number include the plural and words in the plural number include the singular;

   (d) expressions used to denote persons generally (such as “person”, “party”, “someone”, “anyone”, “no one”, “one”, “another” and “whoever”), include a body politic or corporate as well as an individual;

   (e) references to any statute or other legislation (whether primary or subordinate) are a reference to a statute or other legislation of the Commonwealth of Australia as amended or replaced from time to time and equivalent provisions, if any, in corresponding State law, unless the contrary intention appears;

   (f) where a word or phrase is given a particular meaning, other grammatical forms of that word or phrase have corresponding meanings;

   (g) specific conditions prevail over general conditions to the extent of any inconsistency.

2. In this licence:

‘Act’ means the *Gene Technology Act 2000* (Cth) or the corresponding State legislation under which this licence is issued.

‘Canola’ means plants of the species *Brassica napus* L.

‘Clean’ means, as the case requires:

   (a) in relation to Equipment or a facility, remove and/or Destroy the GMOs; or

   (b) in relation to an area of land specified in this licence as requiring Cleaning:

      i. Destroy canola plants, if present, to the reasonable satisfaction of the Regulator, and

      ii. remove canola seeds from the soil surface to the reasonable satisfaction of the Regulator.

Note: The intent of removing seeds from the soil surface is to minimise seed dispersal. One method of removing seeds from the soil surface is Tillage, which moves seeds to under the soil. Tillage must be in accordance with condition 38.

‘Contingency Plan’ means a written plan detailing measures to be taken in the event of the unintended presence of the GMOs outside an area that must be inspected. A Contingency Plan must include procedures to:

   (a) ensure the Regulator is notified immediately if the licence holder becomes aware of the event; and

   (b) recover and/or Destroy the GMOs to the reasonable satisfaction of the Regulator; and

   (c) inspect for and Destroy any Volunteers that may exist as a result of the event to the reasonable satisfaction of the Regulator.

‘Destroy’, (or **‘Destruction’**) means, as the case requires, kill by one or more of the following methods:

   (a) uprooting;

   (b) root cutting and shredding/mulching;

   (c) Tillage, but only in accordance with condition 38;

(d) treatment with herbicide;

(e) burning/incineration;

(f) autoclaving;

(g) milling/hammer milling;

(h) crushing or grinding of seed;

(i) burial, but only in accordance with condition 39;

(j) a method approved in writing by the Regulator.

Note: 'As the case requires' has the effect that, depending on the circumstances, one or more of these techniques may not be appropriate. For example, treatment with herbicide would not successfully kill GM seeds.

'Equipment' includes, but is not limited to, seeders, harvesters, tents, threshers, transport equipment (e.g. bags, containers, trucks), clothing, footwear and tools.

'Extreme Weather' includes, but is not limited to, fires, flooding, cyclones or torrential rain, that could disperse GMOs or affect the licence holder's ability to comply with licence conditions.

'Flowering' is taken to begin when any plant of the class of plants referred to in a particular condition first has an open flower, and is taken to end when all plants in the class of plants no longer have flowers.

'**GM**' means genetically modified.

'GMOs' means the genetically modified organisms that are the subject of the dealings authorised by this licence. GMOs include live plants and viable seed.

'Insect-proof' means sufficient to prevent the entry and exit of insects that commonly pollinate canola flowers.

'Isolation Zone' means an area of land extending outwards from the outer edge of the Monitoring Zone, as shown in Figure 1.

'Logbook' means a written or electronic record containing information required to be collected and maintained by this licence and which is able to be presented to the Regulator on request.

'Monitoring Zone' means an area of land extending outwards from the outer edge of the Planting Area, or the outer edge of a Pollen Trap if a Pollen Trap is employed, as shown in Figure 1. If multiple Planting Areas are present in a Site, the Monitoring Zone also includes the areas of land, of any size, between Planting Areas, as shown in Figure 1.

'OGTR' means the Office of the Gene Technology Regulator.

'Personal Information' means information or an opinion about an identified individual, or an individual who is reasonably identifiable:

(a) whether the information or opinion is true or not; and

(b) whether the information or opinion is recorded in a material form or not.

'Planting Area' means an area of land where the GMOs and non-GM canola are intentionally planted and grown pursuant to this licence, but does not include the Pollen Trap.

'Plant Material' means any part of the GM or non-GM canola plants grown at a Planting Area or Pollen Trap, whether viable or not, or any product of these plants.

'Pollen Trap' means an area of land extending outwards at least 15 metres from the outer edge of a Planting Area, where only Pollen Trap Plants are grown, as shown in Figure 1.

'Pollen Trap Plants' means non-GM canola grown in a Pollen Trap.

'Regulations' means the Gene Technology Regulations 2001 (Commonwealth) or the corresponding State law under which this licence is issued.

'**Regulator**' means the Gene Technology Regulator.

'Related Species' means plants of the species *Brassica napus, B. rapa, B. juncea, B. oleracea, Hirschfeldia incana, Raphanus raphanistrum* or *Sinapis arvensis*, but does not include plants intentionally grown in the Planting Area or Pollen Trap in accordance with licence conditions.

'Sign off' means a notice in writing from the Regulator, in respect of an area, that post-Cleaning obligations no longer apply to that area.

'Site' means an area of land containing one or more Planting Areas and their joint Monitoring Zone, as shown in Figure 1.

'Tillage' means the use of any technique to disturb the soil.

Note: Tillage must be in accordance with condition 38.

'Volunteers' means GM or non-GM canola, which have not been intentionally grown.

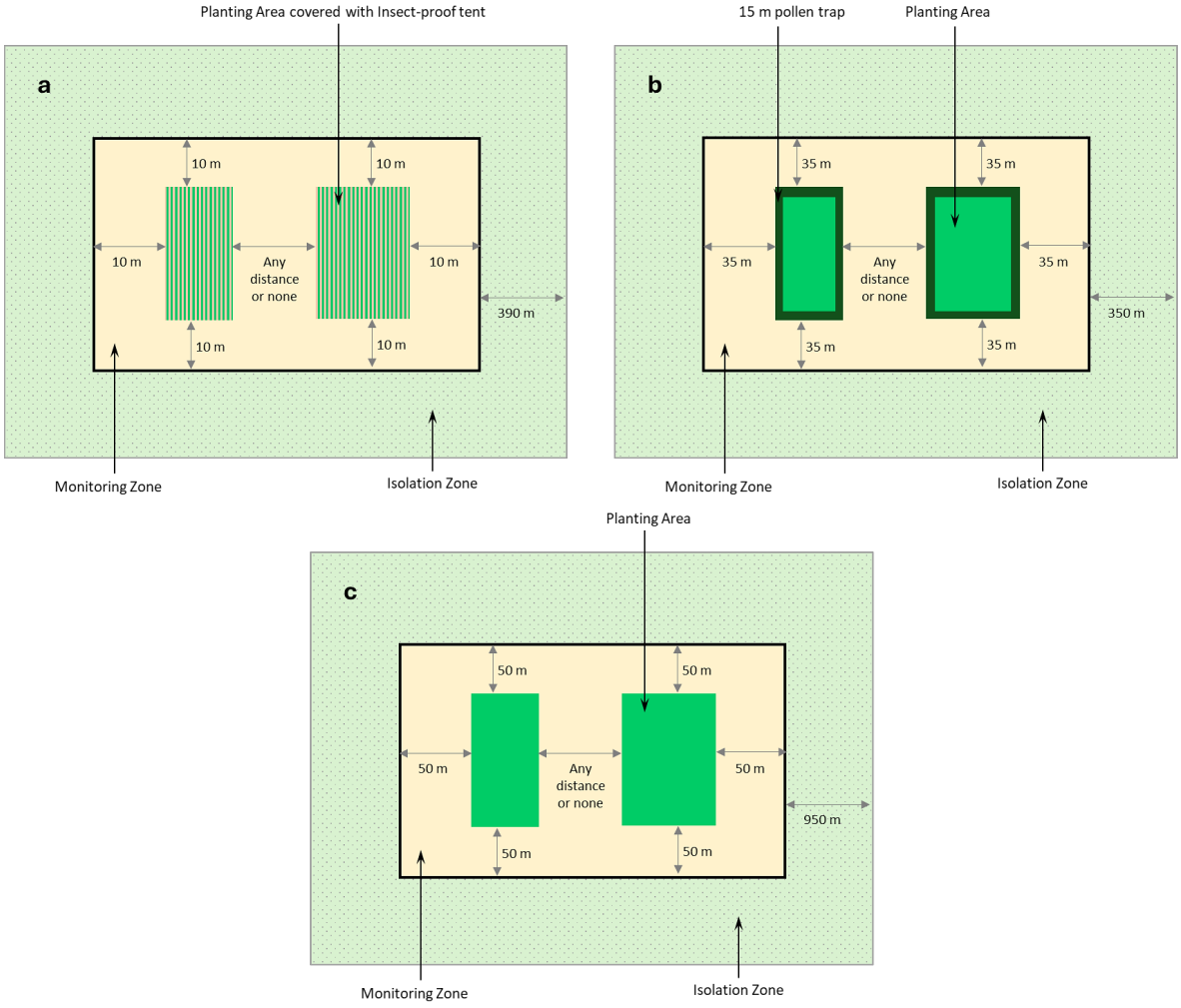

Figure 1. Diagrams (not to scale) showing the relationships between Planting Area, Pollen Trap, Monitoring Zone and Isolation Zone. Multiple Planting Areas may be contained within a single Monitoring Zone.

Site layout (a) with Insect-proof tent, (b) without Insect proof tent and with Pollen Trap, and (c) without Insect-proof tent or Pollen Trap. Monitoring and Isolation Zones must be kept free of Related Species.

Section 2 General conditions and obligations

3. This licence does not authorise dealings with the GMOs that are otherwise prohibited as a result of the operation of State legislation recognising an area as designated for the purpose of preserving the identity of GM crops, non-GM crops, or both GM crops and non-GM crops, for marketing purposes.

4. This licence remains in force until it is suspended, cancelled or surrendered. No dealings with the GMOs are authorised during any period of suspension.

Note: Although this licence has no expiry date, the period when GMOs may be grown is restricted in accordance with Condition 19.

5. The licence holder is The University of Adelaide.

6. The persons covered by this licence are the licence holder and employees, agents or contractors of the licence holder and other persons who are, or have been, engaged or otherwise authorised by the licence holder to undertake any activity in connection with the dealings authorised by this licence.

7. The GMOs with which dealings are authorised by this licence are those listed at **Attachment A**.

8. The dealings authorised by the licence are to:

   (a) conduct experiments with the GMOs;

   (b) breed the GMOs;

   (c) propagate the GMOs;

   (d) grow the GMOs;

   (e) transport the GMOs;

   (f) dispose of the GMOs;

   and the possession, supply or use of the GMOs in the course of any of these dealings.

9. This licence does not apply to dealings with the GMOs conducted as a Notifiable Low Risk Dealing (NLRD) or pursuant to another authorisation under the Act.

Note: Dealings conducted as an NLRD must be assessed by an Institutional Biosafety Committee (IBC) before commencement and must comply with the requirements of the Regulations.

General obligations of the licence holder

10. The licence holder must, at all times, remain an accredited organisation in accordance with the Act and must comply with its instrument of accreditation.

11. The licence holder must be able to access and control all Planting Areas, Pollen Traps, Monitoring Zones, Isolation Zones and approved facilities to the extent necessary to comply with this licence.

Note: Arrangements to access and control these areas must be notified to the Regulator as part of each planting notification (Condition 47(a)).

12. The licence holder must inform any person covered by this licence, to whom a particular condition of the licence applies, of the following:

    (a) the particular condition, including any variations of it;

    (b) the cancellation or suspension of the licence;

    (c) the surrender of the licence.

13. The licence holder must not permit a person covered by this licence to conduct any dealing with the GMOs unless:

(a) the person has been informed of any applicable licence conditions, including any variation of them; and

(b) the licence holder has obtained from the person a signed and dated statement that the person:

i. has been informed by the licence holder of the licence conditions including any variation of them; and

ii. has understood and agreed to be bound by the licence conditions, or variation.

14. If GMOs from licence DIR 201 are planted under Condition 37(e)(iii), then persons conducting the dealings under this licence must also be appropriately trained under DIR 201.

15. The licence holder must inform the persons covered by this licence that any Personal Information relevant to the administration and/or enforcement of the licence may be disclosed to the Regulator.

General obligations of persons covered by the licence

16. If a person is authorised by this licence to deal with the GMOs and a particular condition of the licence applies to the dealing by the person, the person must allow the Regulator, or a person authorised by the Regulator, to enter premises where the dealing is being undertaken, for the purposes of auditing or monitoring the dealing.

Note: Under the Act, the definition of premises includes a building, area of land or vehicle.

Section 3 Limits and control measures

3.1 Limits on the release

The following licence conditions impose limits on where and when the GMOs may be grown.

17. The only plants that may be intentionally grown at a Planting Area are:

(a) the GMOs covered by this licence; and

(b) non-GM canola; and

(c) plants approved in writing by the Regulator.

18. Non-GM canola plants grown in a Planting Area must be handled as if they were the GMOs.

19. Planting and growing of the GMOs may only occur within the following limits:

Area, duration, and location

Period	Maximum number of Sites per year	Maximum combined area of Planting Areas per year	Local Government Areas in which Sites may be located
From issue of licence until January 2030	1	2 ha	Light Regional Council (South Australia)

3.2 Control measures

The following licence conditions restrict the spread or persistence of the GMOs and their genetic material in the environment.

GMOs must not enter food or feed

20. Plant Material must not be used, sold or otherwise disposed of for any purpose which would involve or result in its use as food for humans or feed for animals.

Conditions to restrict pollen flow

21. For each Planting Area, one of the following measures to limit gene flow must be adopted, either:
    (a) cover every GMO planted in the planting area with Insect-proof tents from at least 7 days prior to Flowering and until all GMOs have completed Flowering, and surround the Planting Area with a Monitoring Zone of at least 10 metres, and surround the Monitoring Zone with an Isolation Zone of at least 390 metres (as shown in Figure 1a); or
    (b) surround the Planting Area with a Pollen Trap of at least 15 metres, and surround the Pollen Trap with a Monitoring Zone of at least 35 metres, and surround the Monitoring Zone with an Isolation Zone of at least 350 metres (as shown in Figure 1b); or
    (c) surround the Planting Area with a Monitoring Zone of at least 50 metres, and surround the Monitoring Zone with an Isolation Zone of at least 950 metres (as shown in Figure 1c).
22. Multiple Planting Areas may be contained within a single Monitoring Zone. If a Site has multiple Planting Areas:
    (a) no Planting Area, or Pollen trap if used, may be less than 10 metres (Condition 21 (a)), 35 metres (Condition 21(b)) or 50 metres (Condition 21 (c)) from the outer edge of the Monitoring Zone; and
    (b) any land between Planting Areas is considered to be part of the Monitoring Zone.
23. If a Pollen Trap is used in accordance with condition 21, Pollen Trap Plants must:
    (a) have a reasonably dense and vigorous growth; and
    (b) be Flowering at the same time as the GMOs; and
    (c) form a continuous barrier at least 15 metres wide around the Planting Area while the GMOs are Flowering, although one path of up to 3 metres in width is allowed in order to access the Planting Area; and
    (d) be handled as if they were the GMOs.
24. The Monitoring Zone must be maintained in a manner appropriate to allow the identification and Destruction of Related Species while the GMOs are growing in the Planting Area.

Note: Measures to achieve this could include maintaining the area free of vegetation and/or keeping vegetation mown. Condition 48 requires details of current land use and recent land management practices to be recorded upon inspection of the Monitoring Zone.

25. The GMOs must not be planted in a Planting Area if any intentionally planted Related Species are being grown at the same time in the Monitoring or Isolation Zones.

Note: Refer to Condition 11 regarding access and control of areas.

26. While the GMOs are growing in a Planting Area, associated areas and Insect-proof tents must be inspected by people trained to recognise plants of Related Species, and actions must be taken as follows:

Area	Period of inspection	Inspection frequency	Inspect for	Action
Planting Area, Pollen Trap (if applicable) and Monitoring Zone	**From** 14 days prior to the expected commencement of Flowering of any GMOs* **until** all GMOs in the Planting Area have been harvested or Destroyed	At least once every 35 days	Related Species	Destroy before Flowering or prevent from Flowering
Insect-proof tents	While tents are in place	At least once every 14 days and after any Extreme Weather event	Damage that may render tents not Insect-proof	Repair any damage or replace if repair not possible
Isolation Zone	**From** 14 days prior to the expected commencement of Flowering of any GMOs* **until** all GMOs in the Planting Area have finished Flowering	At least once every 35 days	Intentionally planted Related Species	Destroy before Flowering or prevent from Flowering or Destroy the GMOs in the Planting Area

**Condition 47(a) requires the licence holder to provide information to the Regulator on the expected Flowering period, however the inspection period should be based on the observed development of the GMOs, so that inspections commence prior to Flowering of any GMOs.*

Note: Details of any inspection activity must be recorded in a Logbook (Condition 48) and reported to the Regulator (Condition 47).

Conditions to restrict seed dispersal

27. Equipment used in connection with the GMOs must be Cleaned as soon as practicable after use with the GMOs and before use for any other purpose.

28. Planting Areas and Pollen Traps must be at least 50 metres away from any permanent natural watercourses or man-made drainage features that flow into natural watercourses.

Note: This includes irrigation channels or storm water drains that flow into a natural watercourse.

29. Planting Areas and Pollen Traps must not be located in flood prone areas.

Note: Acceptable measures to determine if an area is flood prone may include, but are not limited to, the 1 in 100 year flood level of the area or the flooding history of the area.

30. If the GMOs are windrowed, the licence holder must take, or have taken, measures to minimise the likelihood of dispersal of the GMOs by wind or rain. Appropriate measures may include:

    (a) ensuring high density planting and growth of the GMOs prior to windrowing; or

    (b) cutting/windrowing to allow maximum stubble height; or

    (c) use of windrow roller; or

    (d) appropriate Site selection.

Note: Appropriate Site selection includes avoidance of windy areas. Windrowing dates and details of measures used to minimise dispersal of GMOs must be reported to the Regulator (Condition 47(d)).

Conditions relating to harvesting

31. All GMOs planted within a Planting Area must be harvested or Destroyed within 9 months after the first planting of any GMO within that Planting Area.

32. If all GMOs in a Planting Area have been Destroyed, then for the purposes of this licence:

(a) the GMOs are taken to have been harvested; and

(b) the Planting Area is taken to have been Cleaned.

Note: Cleaning activities must be reported to the Regulator (Condition 47). Areas of land that have been Cleaned are subject to inspections (Condition 36).

33. The GMOs must be harvested and threshed separately from any other crop.

34. Harvested GM seed not required for experimentation or future planting must be Destroyed as soon as practicable.

Conditions to restrict persistence of GMOs on trial sites

35. Areas of land used in connection with the GMOs must be Cleaned as follows:

Areas of land to be Cleaned	**When**
i. Planting Area, ii. Pollen Trap, if used, and iii. 10 metres around each Planting Area, or around the Pollen Trap, if used (innermost 10 metres of Monitoring Zone)	Within 14 days after harvest of the GMOs
Any other area used to Clean any Equipment used in connection with the GMOs	As soon as practicable
Any other area where the GMOs have dispersed, e.g. during planting, growing, harvesting or Destruction	As soon as practicable

Note: Cleaning activities must be reported to the Regulator (Condition 47). Areas of land that have been Cleaned are subject to inspections (Condition 36).

36. After Cleaning, areas of land must be inspected by people trained to recognise canola. Inspections must cover the entirety of areas to be inspected. Actions must be taken as follows:

Area	**Period of inspection**	**Inspection frequency**	**Inspect for**	**Action**
Planting Area, Pollen Trap, innermost 10 metres of Monitoring Zone and other areas of land that were Cleaned in accordance with Condition 35.	From the day of Cleaning, until: i. the area is planted as a new Planting Area in accordance with condition 17 and inspections required under condition 26 commence; or ii. the Regulator has issued a Sign off for the area	At least once every 35 days	Volunteers	Destroy before Flowering

Note: Details of any inspection activity must be recorded in a Logbook (Condition 48) and reported to the Regulator (Condition 47).

37. While post-Cleaning inspection requirements apply to an area:

(a) the area must be Tilled within 60 days of harvest of the GMOs at a Planting Area, unless otherwise approved in writing by the Regulator; and

Note: If Tillage is used as a method of Cleaning, the Tillage done as Cleaning also meets the requirements for a Tillage within 60 days of harvest.

(b) within the 12 months prior to submission of a Sign off application, the area must be Tilled and then receive a watering event as described in **Attachment B**; and

(c) the area must be maintained in a manner appropriate to allow identification of Volunteers; and

(d) the area must not be used for grazing livestock; and

(e) no plants may be intentionally grown in the area unless:

i. the area is planted as a new Planting Area in accordance with condition 17; or

ii. the plants are listed as post-harvest crops permitted for GM Brassica field trial sites in the OGTR Policy on Post Harvest Crops as current at the time of planting; or

iii. the plants are GMOs from licence DIR 201; or

Note: The licence holder must ensure that they can meet all obligations for DIR 201 and DIR 212, including accessing all relevant areas for Volunteer inspections and conducting Tillages.

iv. the plants are agreed to in writing by the Regulator.

Note: The OGTR's Policy on Post Harvest Crops can be found on the OGTR website.

Tillage

38. Any Tillage of the Planting Area and the Pollen Trap must be to a depth no greater than five centimetres.

Destruction by burial

39. If Destruction of GMOs occurs by burial:

(a) the GMOs must be buried in a pit and covered by a layer of soil at least one metre in depth, the top of which is no higher than the surrounding soil surface; and

(b) seeds must be wet when buried to encourage decomposition; and

(c) the licence holder must take measures to ensure that the burial site is not disturbed for a period of at least two years from the date of burial.

Note: If GMOs are dispersed on the soil surface during the process of burial, the burial site becomes an area of land that requires Cleaning under Condition 35, and is subject to post-Cleaning requirements.

Note: The date and location of burial, and measures used to ensure that the burial site is not disturbed, must be reported to the Regulator (Condition 47(g)).

Processing or experimentation with the GMOs

40. Treatment, threshing or processing of GM seed or experimentation or analysis with the GMOs may only be undertaken within:

(a) a Planting Area before Cleaning; or

(b) a Pollen Trap before Cleaning; or

(c) the innermost 10 m of a Monitoring Zone before Cleaning; or

(d) a facility approved in writing by the Regulator.

Note: This condition does not apply to dealings conducted as an NLRD (see Condition 9).

41. Within a facility approved in writing by the Regulator in accordance with Condition 40, any area that is used for treatment, threshing processing, experimentation or analysis of the GMOs must be Cleaned as soon as practicable and before use for any other purpose.

Transport or storage of the GMOs

42. Transport or storage of the GMOs must:

    (a) only occur to the extent necessary to conduct the dealings permitted by this licence or other valid authorisation under the Act; and

    (b) be in accordance with the Regulator's Guidelines for the Transport, Storage and Disposal of GMOs for PC2 GM plants as current at the time of transportation or storage; and

    (c) comply with all other conditions of this licence.

Note: Activities with the GMOs within a Planting Area prior to Cleaning are not regarded as transport or storage.

Note: Condition 13 requires signed statements for persons transporting the GMOs.

Note: This condition does not apply to dealings conducted as an NLRD (see Condition 9).

43. Methods and procedures used to transport GMOs must be recorded, and must be provided to the Regulator, if requested.

Note: The Contingency Plan must be implemented if the GMOs are detected outside areas under inspection (Condition 44).

Contingency plan

44. If any unintentional presence of the GMOs is detected outside the areas requiring Cleaning, the Contingency Plan must be implemented.

Section 4 Sign off

45. The licence holder may make written application to the Regulator that planting restrictions and inspection requirements no longer apply to the Planting Area and other areas requiring Cleaning if:

    (a) post-Cleaning inspection activities have been conducted for at least 24 months on the area; and

    (b) conditions have been conducive for germination and detection of Volunteers; and

    (c) no Volunteers have been detected in the area during the 12 months prior to the Sign off request.

Note: The licence requires two Tillages and a watering event prior to a Sign off application (Condition 37).

Note: The Regulator will take into account the management and inspection history for the Planting Area and other areas requiring Cleaning, including post-harvest crops planted (if any), Tillage, irrigation, rainfall, application of herbicide and occurrence of Volunteers, in deciding whether or not further inspections are required to manage persistence of the GMOs.

Section 5 Reporting and documentation

The following licence conditions are imposed to demonstrate compliance with other conditions and facilitate monitoring of compliance by staff of the OGTR.

46. General notifications must be sent to the Regulator as follows:

Note: please send all correspondence related to the licence to OGTR.M&C@health.gov.au.

Notice	Content of notice	Timeframe
a. Changes to contact details	Changes to any of the contact details of the project supervisor that were notified in the licence application or subsequently	As soon as practicable
b. Ongoing suitability to hold a licence	i. any relevant conviction of the licence holder; or ii. any revocation or suspension of a licence or permit held by the licence holder under a law of the Australian Government, a State or a foreign country, being a law relating to the health and safety of people or the environment; or iii. any event or circumstances that would affect the capacity of the licence holder to meet the conditions of the licence; and	As soon as practicable after any of these events occur
	iv. any information related to the licence holder's ongoing suitability to hold a licence, that is requested by the Regulator	Within the timeframe stipulated by the Regulator
c. People covered by the licence	i. names of all organisations and persons, or functions or positions of the persons, who will be covered by the licence, with a description of their responsibilities; and *Note: Examples of functions or positions are 'project supervisor', 'site manager', 'farm labourer' etc*. ii. detail of how the persons covered by the licence will be informed of licence conditions	At least 14 days prior to conducting any dealings with the GMOs (to be updated within 14 days if the notified details change)
d. Testing methodology	A written methodology to reliably detect the genetic modifications described in this licence. The detection method/s must be capable of identifying each GM canola line planted under this licence	At least 14 days prior to conducting any dealings with the GMOs (to be updated within 14 days if the notified details change)
e. Contingency plan	A Contingency Plan to respond to inadvertent presence of the GMOs outside an area that must be inspected	At least 14 days prior to conducting any dealings with the GMOs (to be updated within 14 days if the notified details change)
f. Training records	Copies of the signed and dated statements referred to in condition 13 if requested by the Regulator	Within the timeframe stipulated by the Regulator
g. Additional information required by the Act	i. additional information as to any risks to the health and safety of people, or to the environment, associated with the dealings authorised by the licence; or ii. any contraventions of the licence by a person covered by the licence; or iii. any unintended effects of the dealings authorised by the licence *Note: The Act requires, for the purposes of the condition 46.g, that:* • *the licence holder will be taken to have become aware of additional information of a kind mentioned in Condition 46.g if he or she was*	Without delay after becoming aware of any new information *Note: An example of notification without delay is contact made within a day of a contravention of the licence via the OGTR free call phone number 1800 181 030 or email to OGTR.M&C@health.gov.au. Notification without delay will allow the OGTR to conduct a risk assessment on the*

	reckless as to whether such information existed; and • *the licence holder will be taken to have become aware of contraventions, or unintended effects, of a kind mentioned in Condition 46.g, if he or she was reckless as to whether such contraventions had occurred, or such unintended effects existed* *Note: Contraventions of the licence may occur through the action or inaction of a person.*	*incident and attend the location, if required*
h. Further details regarding additional information	Any further details requested by the Regulator in relation to information provided under condition 46.g	Within the timeframe stipulated by the Regulator

47. Notifications relating to each trial Site must be sent to the Regulator as follows:

Note: please send all correspondence related to the licence to OGTR.M&C@health.gov.au.

Notice	Content of notice	Timeframe
a. Intention to plant	i. Details of the Planting Area including size, the local government area, GPS coordinates, a street address, a diagrammatical representation of the Site (e.g. Google Maps) and any other descriptions ii. Whether an Insect-proof tent or Pollen Trap will be used iii. Detail of how the licence holder will access and control the Planting Area and the associated Pollen Trap, Monitoring Zone and Isolation Zone, in accordance with condition 11 *Note: this should include a description of any contracts, agreements, or other enforceable arrangements.* iv. Identity of the GMOs to be planted at the Planting Area (e.g. lines or construct details) v. Date on which the GMOs will be planted vi. Period when the GMOs are expected to Flower vii. Period when windrowing (if intended) is expected to commence viii. Period when harvesting is expected to commence ix. How all areas requiring post-Cleaning inspections are intended to be used until Sign off, including proposed post-harvest crops (if any) x. Details of how inspection activities will be managed, including strategies for the detection and Destruction of Volunteers and Related Species xi. History of how the Site has been used for the previous two years	At least 7 days prior to each planting (to be updated as soon as practicable if the notified details change)
b. Planting	i. Actual date(s) of planting the GMOs ii. Any changes to the details provided under part (a) of this condition	Within 7 days of any planting
c. Extreme Weather	Any Extreme Weather event that is expected to affect or has already affected an area where the GMOs are or may be present.	As soon as practicable

Notice	Content of notice	Timeframe
	Note: The Contingency Plan must be implemented if the GMOs are detected outside areas requiring Cleaning (Condition 44).	
d. Windrowing	Actual date(s) of windrowing and details of measures used to minimise dispersal of the GMOs during windrowing (Condition 30).	Within 7 days of commencement of windrowing
e. Harvest	Actual date(s) of harvesting the GMOs	Within 7 days of commencement of any harvesting
f. Cleaning	i. Date(s) on which required Cleaning was performed on any areas of land ii. Method(s) of Cleaning	Within 7 days of completion of Cleaning
g. Destruction by burial	Date of burial, location of burial including GPS co-ordinates, and details of measures used to ensure that the burial site will not be disturbed for the period required by Condition 39.	Within 7 days of burial of any GMOs
h. Inspection activities	Information recorded in a Logbook as per the inspection requirements (Conditions 26, 36 and 48).	Within 35 days of inspection

Note: Additional records must be provided to the Regulator, if requested, in accordance with condition 43.

48. Details of any inspection activity must be recorded in a Logbook and must include:

(a) date of the inspections; and

(b) name of the person(s) conducting the inspections; and

(c) details of the experience, training or qualification that enables the person(s) to recognise canola and/or Related Species, if not already recorded in the Logbook; and

(d) details of areas inspected including current land use (including any post-harvest crops) and recent management practices applied; and

Note: management practices include Tillage events, spraying or maintenance measures used to facilitate inspections.

(e) details of the developmental stage of the GMOs while they are being grown; and

(f) details of any post-Cleaning rainfall events including measurements at or near the area, or any irrigation events; and

(g) details of any Volunteers and/or Related Species observed during inspections or during land-management activities, including number, developmental stage and approximate position of the Volunteers and/or Related Species within each area inspected†; and

(h) date(s) and method(s) of Destruction of or preventing Flowering of any Volunteers and/or Related Species, including destruction of Volunteers and/or Related Species during land-management activities; and

(i) details of any damage and any repairs to the Insect-proof tents, while Insect-proof tents are required.

† Examples of acceptable ways to record the positional information for Volunteers and/or Related Species in the Logbook include:

- descriptive text

- marking on a diagram

- indicating grid references on a corresponding map/sketch.

Note: Details of inspection activities must be provided to the Regulator (Condition 47). The Regulator has developed a standardised proforma for recording inspection activities. This can be made available on request.

ATTACHMENT A

DIR No: 212

Full Title: Limited and controlled release of canola genetically modified for increased photosynthesis and photorespiration

Licence holder

The University of Adelaide

GMO Description

GMOs covered by this licence

Canola plants genetically modified by introduction of only the genes and genetic elements listed below.

Parent Organism

Common Name: Canola

Scientific Name: *Brassica napus* L.

Modified traits

Category: Increased photosynthesis

Increased photorespiration

Selectable markers – antibiotic resistance, herbicide tolerance

Description: Canola plants have been genetically modified by introduction of genes involved in increasing photosynthesis and photorespiration. The GM plants may also contain selectable marker genes that confer antibiotic resistance and herbicide tolerance. The introduced genes are listed in Table 1 and the associated genetic elements are listed in Table 2.

Table 1. Introduced genes in the GM canola

Gene	Source	Encoded protein	Intended function
GhPGLP1	*Gossypium hirsutum* (cotton)	Phosphoglycolate phosphatase 1 (PGLP1)	Enhanced photorespiration
AtPetC	*Arabidopsis thaliana*	Rieske FeS	Improved electron transport capacity in photosynthesis
AtPip1;3	*Arabidopsis thaliana*	Plasma membrane intrinsic protein 1;3 (Pip1;3)	Improved photosynthesis by improved CO_2 transport
hptII	*Escherichia coli*	Hygromycin phosphotransferase (HPT)	Selectable marker (antibiotic resistance)
bar	*Streptomyces hygroscopicus*	Phosphinothricin N-acetyltransferase (PAT)	Selectable marker (herbicide tolerance)

Table 2. Introduced regulatory sequences in the GM canola

Element function	Genetic element	Source
Constitutive promoter	*Cauliflower mosaic virus 35S (CaMV35S)*	*Cauliflower mosaic virus*
	nopaline synthase (nos)	*Agrobacterium tumefaciens*
	mannopine synthase (mas)	*Agrobacterium tumefaciens*
Green tissue specific promoter	*Rubisco small subunit 2B (RbcS2B)*	*Arabidopsis thaliana*
Terminator	*octopine synthase (ocs)*	*Agrobacterium tumefaciens*
	nos	*Agrobacterium tumefaciens*
	mas	*Agrobacterium tumefaciens*
Epitope tag	Myc	Synthetic peptide from the human C-Myc protein

ATTACHMENT B

A watering event is irrigation or natural rainfall that provides sufficient soil moisture to promote germination of canola seeds on a trial site.

Examples of acceptable watering events are:

- At least 26 millimetres of rainfall over one day; or
- At least 28 millimetres of rainfall over two days; or
- At least 30 millimetres of rainfall over three days; or
- At least 32 millimetres of rainfall over four days; or
- Irrigation that provides equivalent levels of soil moisture to one of the examples of rainfall above.

Rainfall measurements must be taken on the site or within 3 km of the site. An irrigation or natural rainfall that matches one of the examples listed above, and occurs during the time period specified for a watering event in Condition 37 of the licence, is considered a valid watering event. The licence holder should keep records of the date/s and amount of water applied during the watering event, and provide this information when requesting Sign off of the relevant site.

If an irrigation or natural rainfall does not match one of the examples listed above, the licence holder may submit a request to the Regulator for it to be considered a watering event. The request should provide:

- evidence of amount of water applied, such as rainfall measurements on the site or within 3 km of the site, and
- evidence that resultant soil moisture is suitable for germination, such as photos of germinating plants on the site.

It is recommended that any requests that an irrigation or natural rainfall be considered a watering event be submitted at the time of the event, to minimise potential delays to Sign off of the site.