**APPLICATION TO WORK WITH GENETICALLY MODIFIED PLANTS**

**Complete this form and attach it to your main GM Application Form**

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| Application Received: | *(Local BSO use)* | Project  No: | *(Local BSO use)* |

You will need to consult Part 4 of the [“Compendium of Guidance”](http://www.hse.gov.uk/biosafety/gmo/acgm/acgmcomp) from the Health and Safety Commission’s Scientific Advisory Committee on Genetic Modification.

Note that knockouts are covered by the Contained Use Regulations though self-cloned species are exempt if they are as safe to humans as the parent species. However, there is still the general duty to carry out a risk assessment (for human health) and no self-cloned plants are exempt from the requirement to carry out an environmental risk assessment under the Environmental Protection Act.

1. **Outline of work:**

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| **1.1 Description of the work:**  *Include aims and an outline of procedures undertaken. Provide full information concerning the host organism, inserted genes and vectors used its biological activity :* |
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1. **Risk Assessment for Environmental Protection**

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| **2.1 Hazard identification:** *Consider the following and identify any potential hazards by comparing the GM plant to the non-modified parent and assuming that the receiving environment may be exposed:* |
| **2.1.1 Describe the GM plant’s capacity to survive, establish, disseminate, compete with and/or displace other plants:** *(Summarise biology, likely interactions with the potential receiving environment and likely effect of modification on these characteristics. For example, will the GM plant be more invasive/weedy in the natural environment? Will it exhibit altered survival characteristics in the agricultural environment, requiring different management control strategies?)* |
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| **2.1.2 Describe the GM plant’s potential to cause harm to animals:**  *(For example, will the GM plant be toxic to target organisms [such as insect pests] or harmful to non-target species [such as insect predators]?)* |
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| **2.1.3 Describe the GM plant’s potential to cause harm to beneficial microorganisms:** *(For example, will either root exudates or the products of plant decomposition have the potential to cause harm?)* |
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| **2.1.4 Describe the GM plant’s potential to exhibit altered interactions with plant pathogens and the potential for harm which may arise:** *(For example, will sequences derived from plant viruses be inserted and could these recombine with secondary infecting viruses to create a novel pathogen? Will the GM plant become a new host for a plant pathogen, thereby creating a new reservoir in which they can establish?)* |
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| **2.1.5 Describe the GM plant’s potential to transfer genetic material to other organisms, thereby conferring hazards 2.1.1 to 2.1.4 above on them:**  *(For example, does the GM plant have relatives in the receiving environment with which it can cross pollinate?)* |
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| **2.1.6 Based on the above descriptions, itemise any hazards you have identified:** |
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| **2.2 Containment requirements:** Describe the containment measures for each hazard so that the likelihood of a hazard being manifested is “effectively zero”, giving justifications. The containment measures are described on pages 69-72 of Part 4 of the compendium of guidance |
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1. **Risk Assessment for Human Health and Safety**

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| **3.1 Hazard identification:** *Consider the following and identify any potential hazards, comparing the GM plant to parent plant and assuming humans will be exposed.* |
| **3.1.1 Describe the GM plant’s potential to be more toxic to humans than the parent plant:** |
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| **3.1.2 Describe the GM plant’s potential to be more allergenic to humans than the parent plant:** |
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| **3.1.3 Describe the GM plant’s potential to exhibit other potential hazards to humans when compared with the parent plant:** |
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| **3.1.4 Based on the above descriptions, itemise any hazards you have identified:** |
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| **3.2 Assessment of likelihood:** Assuming the containment measures already specified in section 2.2 above are in place, express the likelihood of a human health hazard being manifested as “high”, “medium”, “low”, or “effectively zero”. Give justifications. |
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| **3.3 Containment measures to control the risk to human health:** If the risk in section 3.2 is “low” or “effectively zero”, then the containment measures described in section 2.2 above are sufficient. If not, additional containment measures must be used to reduce the risk “low” or “effectively zero”. Describe the proposed facilities and containment measures and how this impacts on the determination of risk. |
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1. **Summary of key control measures**

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| **4.1 Equipment and Protective clothing required** |
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| * 1. **Storage and transport** |
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| * 1. **Inactivation and waste disposal procedures** |
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1. **Notifications and licenses**

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| **5.1 Do the genetically modified plants have a greater degree of potential to cause harm to humans than the non-modified equivalent plants? Justify your answer. If the answer is YES, the work must be notified to HSE.** |
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| **5.2 Other legislation: Is the activity subject to additional control by other legislation (such as a DEFRA Plant Health Licence?) If so give details.** |
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| **Amendment/Supplementary sheet**  ***(e.g. changes that do not fundamentally affect the hazards***  ***associated with the activity).***  ***Amendments must be signed by the PI and BSO*** | |
|  | Dated signature |