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19 December 2016

Dear Sirs,

**Re: Response to Genetically Modified Organisms application 16/R08/02**

The Agriculture and Horticulture Development Board (AHDB) supports the execution of this proposed research by Rothamsted Research.

AHDB considers that all technologies which can increase the efficiency of crop production should be fully appraised and evaluated, and is prepared to play a role in the process of evaluating GM crops that may provide economic, environmental or consumer benefits to the UK. AHDB welcomes innovation which will deliver a step change in driving productivity in the UK, making grain more competitive in both the international and domestic market.

AHDB Cereals & Oilseeds evaluates new and current varieties of cereal and oilseed crops, providing independent variety performance information to the UK arable industry. Research has indicated that wheat yields have plateaued in recent years, with yields from crops derived from conventional breeding programmes only increasing by an average of 0.02t/ha per year since 1996, compared to advances of 0.11t/ha observed from 1980 - 1996 (HGCA PR502, *Desk study to evaluate causes of the current 'yield plateau' in wheat and oilseed rape*, 2012). This work proposed at Rothamsted Research using GM approaches may have the potential to deliver innovative approaches to address this issue. The research will provide insight as to how improving the efficiency of photosynthesis by genetic modification may achieve higher wheat yield potential, providing UK growers with wheat varieties which produce a competitive yield in the global market. Assessing these technologies in a field scenario is an important step in advancing the science to the stage where commercial varieties carrying traits conferred by novel techniques including GM are available to UK growers. The work will give valuable insight into the evaluation of the performance of these engineered plants, to understand if these they can produce a significant yield benefit given the same resources as a conventionally bred crop. Whilst much research of GM

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derived crops are conducted in glasshouse environments, little is known about GM crop performance in the UK habitat, and this work is well-placed to address the potential of GM crops in UK surroundings.

AHDB wishes to see science advance to the stage where commercial varieties carrying traits conferred by GM and other innovative breeding technologies are available to UK farmers and growers, giving the industry the choice whether or not to adopt them. The execution of this research will be an important step in delivering this opportunity to the UK industry.

**About AHDB**

*The Agriculture and Horticulture Development Board is a statutory levy board, funded by farmers, growers and others in the supply chain. Our role is to inspire change, stimulate innovation and identify opportunities for businesses to become more profitable. We do this by being the centre for the generation and sharing of knowledge, best practice and providing independent evidence, information and services. AHDB collects levies from the meat and livestock sector (cattle, sheep and pigs) in England, horticulture, milk and potato sectors in Great Britain and the cereals and oilseeds sector in the UK. The AHDB's remit covers 72% of total UK agricultural output. Levy is invested in a wide range of activities including R&D, marketing, exports and market intelligence. Because the levy is statutory, AHDB is classified as a Non-Departmental Public Body and comes under the sponsorship of the Department for Environment, Food and Rural Affairs.*

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Guy Attenborough', with a horizontal line underneath.

**Guy Attenborough**  
**Director of Corporate Affairs**