

**An Economic Cost Benefit Analysis of GM Potato Cultivation:
An Irish Case Study**

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To date there are no commercial GM crops cultivated in Ireland. The most important precondition for widespread adoption of a new technology is its profitability for farmers. The objective of this paper is to outline an ex ante cost benefit analysis of GM potato crops under assumed co-existence guidelines, which were established as part of a multi-disciplinary research project funded by DAFM under the Research Stimulus Programme, completed in 2012.

A partial (Gross Margin) budget was conducted on an annual and multi-annual basis for conventional and an assumed GM potato crop scenario. The methodology used was similar to that used by Thorne *et al.*, (2004) and Flannery *et al.*, (2002) Alternative adoption rates, yield, price effects and co-existence measures were assumed. The results show that for a farmer of average efficiency levels, the cost savings from the technology are only sufficient to compensate for potential price discounts associated with the end product, when a preventative blight spray is reduced to zero sprays or when yield increases in the order of 5% are attainable the GM technology. Furthermore, the potential costs associated with a range of co-existence management strategies are significant.

Potential farm gate yield and price of the GM technology are key considerations in the relative economics of a potential GM potato crop in Ireland. The consumer willingness to pay for the GM technology will be of key importance and on-going research by Teagasc on this subject is due to be published in the next few months on this topic.

Note:

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