

Genetically Modified Organisms

Advisory Committee on Releases to the Environment (ACRE)
Minutes of a meeting dated 28th September 2006
Field Trials of GM Potato.

ACRE were asked to consider a proposal to test the resistance of a modified potato strain to UK populations of *Phytophthora infestans*. *Phytophthora infestans* is a fungus responsible for potato blight.

Issues addressed include the likelihood of potato offspring surviving at the trial site, the likelihood of gene transfer to non GM potatoes and control measures to prevent the test crop entering the human food chain.

The following summary contains the key points of ACRE's view:

- The trial site should be monitored until two full years have passed with no sign of any survivors. The land should be treated with systemic herbicides and plants should be pulled as they emerge [before any new tubers form]. The land should lie fallow during the monitoring period to encourage germination of potato seed. Annual reporting of potato growth after the trial crop is harvested should be submitted to ACRE.
- Potato tubers from the trial site would be chopped or heat treated to render them unviable.
- Wild animals do not generally eat potato plant material as it is toxic. Wild animals would be very unlikely to transfer potato tubers away from the trial site. No fencing would therefore be required.
- Pollination of nearby non-GM crops was considered highly unlikely if there was a separation distance of 20 meters. Long distance pollinations are possible, especially when there are large populations of pollen beetles in the area.

Comment

The purpose of the trial would be to estimate the commercial advantages to be derived from this GM crop. Resistance to disease would increase the value of the seed.

Of note is the view that 20m would be a sufficient separation distance to prevent cross pollination with non-GM potatoes. This parameter would be of value in determining fault in a fault based compensation system. Ensuring or restoring a 20m separation would have a cost. At present, the UK authorities have the view that fault based compensation systems for harm done by GM crops are unlikely to meet the needs of public policy.

Post trial monitoring should be sufficiently sensitive that it can detect an adverse event early enough to facilitate elimination or remediation. For potatoes the identification of survivors after harvest is straightforward. A 2 year period to ensure no further contamination could see remediation costs spread over several years.

In our view, the survival of GM strain of potato or it's cross fertilisation with a non GM potato would not be regarded as sudden or unexpected even if usually unintended and likely to be identified if large costs are at stake.