

Year of study: 2012

Compiled by: Dr. Ewen Mullins

Date: December 17th, 2012

Context: The below information is provided as per condition 5.8 of the EPA consent to Teagasc of July 25th, 2012 on the field release of cisgenic potato line A15-031.

Introduction:

On August 27th a total of 24 cisgenic and 24 non-cisgenic potato plantlets were transferred out into the designated plot in Oak Park, Carlow. The plantlets had previously been grown up under contained glasshouse conditions in Oak Park and were originally derived from tissue culture explants that were received from the University of Wageningen, the Netherlands. The total planted area measured 10m x 10m and the area was secured with a 5ft fence with an electrified wire running along the perimeter. The plants remained in the field until October 19th, which was when the site was manually harvested.

No herbicide was applied to the plot prior to harvest. Harvesting was completed in a single day with each plant lifted by spade and all tubers collected from the soil. To ensure this was the case, each sub-plot (3 plants) was then dug up repeatedly and the soil sifted through to ensure no residual tubers/mini-tubers remained (condition 3.4.2). All plant foliage (GM/non-GM and bait including tubers from bait plants) was on this occasion removed from the site in plastic bags contained in sealed boxes (as per condition 3.5.1) for destruction via validated autoclaving within the contained use facility at Oak Park (as per condition 3.8.1). A total of 123 cisgenic tubers were collected versus 103 non-cisgenic tubers.

The below information is provided in accordance with condition 5.8 of the consent for notification No. B/IE/12/01. Specifically, detail is provided in regards to condition 3.3, 3.5 and 5.6.5 as follows:

Condition 3.3:

During the growing season, the site was inspected twice weekly. No damage to the perimeter fence was noted during the inspections neither was there any vandalism to the site. Similarly, there was no evidence of burrowing by animals within or around the perimeter of the site during the growing season. No tubers were exposed during the study. No flowers were recorded on any of the plants (cisgenic, non-cisgenic or bait) in the site due to the short growing season, which meant no berries formed and there was no TPS produced.

Condition 3.5:

All tubers were removed from the site in accordance with condition 3.5.1 with a total of 123 cisgenic tubers collected versus 103 non-cisgenic tubers from the 2012 site. No volunteers/groundkeepers have been noted to date and dependent on the weather conditions the site will be prepared for perennial ryegrass sowing as early as possible in 2013 (condition 3.5.2). No tubers taken from the 2012 site have been used as animal feedstuff (condition 3.5.4).

Condition 5.6.5:

Post-harvest, monthly inspections have been ongoing (5/11/2012 and 4/12/2012) and no groundkeepers, volunteers were evident within or adjacent to the site. This monitoring will continue as required by the license.