

Year of study: 2014






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Date: December 10th, 2014

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.

Planting of the 2014 site was completed between May 30th and June 4th. Prior to planting, the site was prepared by deep ploughing, followed by two passes of a rotovator before drills were machine prepared with GPS guidance. Plots (n = 54 per site) were then marked out for each of the two sites within the field. Both sites were positioned to ensure that they did not encroach on the 2012 plot or the 2013 plots. All research operations were successfully completed during 2014 as planned. Harvesting commenced October 22nd and was completed by October 25th. As per 2013, different colour bags (e.g. white for Sarpo mira, red for GM Desiree and orange for non-GM Desiree) were used to distinguish between plots and all bags were sealed and labelled prior to removal from field. A total of 5343kg of potatoes in 223 sealed bags were removed from the field in contained transport and brought to the secure storage area for weighing prior to steam destruction. After bag weights were recorded, tubers were transferred into larger bags (Image A) for steaming (Image B and C), which was completed by December 5th. Bag lots were steamed for a minimum of 16 hours after which manual inspection (Image D) confirmed tuber destruction before the material was removed for composting (Image E). The composting cycle will be for a minimum of 10 months.

As a provision for the 2015 season, a single bag of cisgenic tubers was retained and is being stored in the biotech facility glasshouse until sowing and establishment of the 2015 crop is assured.

(A) 13 x sealed bags (~0.5 tonne/bag) with tubers taken from site	(B) Four bags steamed/session	(C) Steam destruction of tubers for \geq 12hrs
		
(D) Verification of steam destruction	(E) Destroyed tubers before composting	
		

The below additional 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 and there was no disturbance to the site before, during or after the 2014 growing season. There was no evidence of burrowing by animals within or around the perimeter of the site during the growing season.

On monitoring the 2012 site during the 2014 season, there was no evidence of volunteers arising from true potato seed or groundkeepers arising from residual tubers. Monitoring of the 2013 plots commenced in May 2014, and as expected there was a substantial flush of volunteers with up to 27 volunteers recorded/plot, with no differences recorded between varieties. To minimise the use of herbicide on site, volunteer populations were controlled by fortnightly mowing. This proved to be a very effective strategy as it checked the growth of the volunteers which allowed time for the sown grass to grow and out-compete the volunteers. As a result, counts made in October recorded no evident volunteers in the 2013 plots. Continued observations will be made in 2015.

As per condition 3.2.1, no potato crops were sown within the 40m minimum distance.

Condition 3.5:

Harvesting was completed by mechanical means and all exposed tubers/tuber pieces were handpicked from the soil surface. As per condition 3.4.1, the tubers from each plot were collected in labelled bags which were then sealed on site before removal in contained transport to a secure storage area on the Oak Park campus, as verified by EPA inspector. All plots were repeat harvested (x2) in accordance with condition 3.4.2 to ensure the removal of all visible tubers and/or tuber pieces. Material collected during the post-harvest inspections were placed in labelled bags and removed as per condition 3.5.1 and steam destroyed. Dependent on the weather conditions the site will be prepared for ryegrass sowing as early as possible in 2015 (condition 3.5.2). No tubers taken from the 2014 site have been used as animal feedstuff (condition 3.5.4).

Condition 5.6.5:

Post-harvest, monthly inspections have been ongoing (13/11/2014 and 10/12/2014) and no groundkeepers, volunteers were evident within or adjacent to the site. This monitoring will continue as required by the license.