

Sampling and Testing Protocol for Bulk Shipments of Canadian Flaxseed Exported to Japan - for Feed or Industrial Use

1. Purpose

The purpose of this protocol is to describe the system of sampling, testing, and documentation pertaining to the presence of FP967 (CDC Triffid) in bulk vessel shipments of Canadian flaxseed to Japan for feed and industrial use. This protocol outlines the activities that will be undertaken by the Canadian flaxseed industry, and the Canadian Grain Commission (CGC).

2. Background

Based on the Japanese "Law ensuring the safety and improving the quality of feed", Japan permits the use and import of genetically modified (GM) crops as feed, only where the safety of the feed is confirmed.

Upon receiving the report of a Low Level Presence (LLP) incident with unauthorized GM flaxseed in 2009, Japan's Ministry of Agriculture, Forestry and Fisheries (MAFF) strongly requested that Canada's flaxseed industry implement appropriate preventive measures. MAFF further requested that in the case that a LLP incident will occur, that Canada take the necessary risk management measures promptly.

Canada's flaxseed industry in cooperation with the Canadian Government is committed to take immediate measures including loading tests in cooperation with the relevant trading companies in order to prevent the export of unauthorized GM crops to Japan.

Following a period of time (to be determined by MAFF) wherein compliance with the Protocol is demonstrated, the Food and Agricultural Materials Inspection Center (FAMIC) may choose not to conduct monitoring tests for vessels where negative certificates are provided, and where the validity of the loading test for certification has been confirmed by the Government of Canada.

3. Commercial Handling System Procedures

- a. Producer Delivery Samples - A sample will be taken by grain handling company personnel from each producer delivery into the commercial handling system. Samples will be retained for a period of no less than six months from the date of delivery. The CGC provides guidance on sampling methods to the Canadian grain industry in its official *Sampling Systems Handbook and Approval Guide*.

- b. Composite Railcar Samples and Testing – All flaxseed for bulk shipments moves from primary elevators to port position by railcars. At time of loading, each railcar will be sampled, and composite samples representing not more than 5 railcars will be prepared. The CGC provides guidance on sampling methods to the Canadian grain industry in its official *Sampling Systems Handbook and Approval Guide*. These composite samples will be tested for the presence of FP967 by a laboratory that has successfully completed a proficiency test administered by the CGC and listed on the CGC website¹. If a composite sample tests positive for the presence of FP967, all railcars testing positive will be diverted from the Japanese flaxseed supply. Individual grain handling companies will retain documentation pertaining to each rail shipment and test result.

4. Requirements for Testing Laboratories

Laboratories undertaking testing for the commercial handling system may only be designated on the CGC website if they have successfully completed the FP967 proficiency testing program administered by the CGC in order to meet the requirements of MAFF.

The CGC will maintain a list of laboratories which have successfully completed the proficiency test on its website².

5. CGC Procedures for Exports: *Sampling*

- a) Sampling Method – All bulk vessels loading flaxseed destined for the Japanese processing or feed market will be sampled by CGC personnel with an approved automatic diverter-type sampler in accordance with the *CGC Vessel Loading Work Instruction* and the official *Sampling Systems Handbook and Approval Guide*.
- b) Sample Size – For lots of flaxseed exceeding 500 metric tons, a minimum sample size of 50 kilograms will be taken. For lots between 50 metric tons and 500 metric tons, a sample equal to 0.01% of the lot size will be taken. For lots less than 50 metric tons, a minimum sample size of 5 kilograms will be taken.
- c) Composite Samples by Vessel Lot – For all bulk shipments by vessel, CGC personnel will prepare a representative composite sample for each lot of the vessel. Sampling and testing by lot allows for identification and segregation of any lot that potentially tests positive.
- d) Sample Preparation and Retention – CGC personnel will reduce samples and prepare one representative 2.5 kilogram sample for testing and one identical 2.5 kilogram sample for retention and future reference. Both 2.5kilogram samples will be sealed with official CGC seals and seal

¹ URL yet to be determined

² Ibid

numbers will be documented. Samples will be retained for no less than six months.

6. CGC Procedures for Exports: *Testing*

- a) Testing Preparation – Samples for testing will be expedited to the CGC Grain Research Laboratory. Laboratory personnel will draw four 60 gram sub-samples from the single 2.5 kilogram laboratory sample. Each sub-sample represents approximately 10,000 individual flax seeds, which is capable of achieving a level of detection of 0.01%.
- b) Testing Procedures – The CGC Grain Research Laboratory will test four 60 gram sub-samples taken from the single 2.5 kilogram laboratory sample. One DNA extraction will be made from each sub-sample using the *Fast ID Genomic DNA Extraction Kit*. Two PCR analyses will be carried out for each DNA extraction. The construct-specific method, verified by the EU Community Reference Laboratory, will be used for the qualitative and quantitative PCR assays³.
- c) Testing Results - A lot shall be negative when all four 60 gram sub-samples test negative within the 1% tolerance.

7. CGC Procedures for Exports: *Documentation*

The CGC will prepare an official *Letter of Analysis* on CGC letterhead to accompany other CGC quality certification which may include a *Certificate Final* or an *Official Inspection Certificate*. The *Letter of Analysis* will be presented to the Canadian flaxseed exporter, who will in turn provide it directly to the appropriate Japanese authorities.

The *Letter of Analysis* will include a statement as follows:

The Canadian Grain Commission (CGC) officially sampled the cargo of flaxseed (Linseed) identified above and has applied the CGC seal #xxxxxx to the official sample. The CGC Grain Research Laboratory has tested the official sample with this CGC seal number. The official sample has tested below 1 percent (%) for the presence of FP967 (CDC Triffid) based on the verified testing procedures outlined in section 6 of the Sampling and Testing Protocol for Bulk Shipments of Canadian Flaxseed Exported to Japan for Feed or Industrial Use. The lab report is attached.

8. CGC Investigation into the Presence of FP967

The CGC is conducting an investigation into the presence of FP967 within the Canadian flaxseed supply. The CGC will share results of this investigation with MAFF at regular intervals.

³ <http://gmo-crl.jrc.ec.europa.eu/flax.htm>

9. Termination of Loading Test Requirement

The Canadian Government and Canada's flaxseed industry understand that the Canadian Government and Canada's flaxseed industry may submit an application with relevant information to the MAFF Animal Products Safety Division for termination of the testing requirements. The division will determine whether the loading test can be terminated based on the submitted information and, if necessary, an opinion from the Agricultural Material Council (GM committee). The Government of Canada and MAFF will exchange information and discussions regarding the termination of testing in the future.

10. Review Date

This protocol may be reviewed and revised at any time. The Government of Canada will notify MAFF officials if revisions are sought.

11. Questions

Questions pertaining to this protocol should be directed to the Chief Grain Inspector for Canada at (204) 983-2780 or (800) 853-6705.