PART 2 (COUNCIL DECISION 2002/813/EC)

SUMMARY NOTIFICATION INFORMATION FORMAT FOR THE RELEASE OF GENETICALLY MODIFIED HIGHER PLANTS *(ANGIOSPERMAE AND GYMNOSPERMAE)*

A. GENERAL INFORMATION

1. Details of notification

a) Notification number: B/BE/10/V2

b) Date acknowledgement of notification:

c) Title of the project:

Application for the release into the environment of potato lines with improved resistance to Phytophthora infestans, 2011 and 2012

d) Proposed period of release: from 01/04/2011 until 31/10/2012

2. Notifier

Name of institute or company:

BASF Plant Science Company GmbH
Carl-Bosch-Straße 38
67056 Ludwigshafen
Germany

3. Is the same GMPt release planned elsewhere, inside or outside the Community [in conformity with Article 6 (1)] by the same notifier?

Yes (x) No ( )

If yes, insert the country code(s): SE, NL, DE, CZ, UK

4. Has the same GMPt been notified for release elsewhere, inside or outside the Community, by the same notifier?

Yes (x) No ( )

If yes, notification number(s): B/SE05/03, B/SE/05/8615, B/NL/05/03, B/NL/07/07, B/DE/05/174, B/DE/06/183, B/DE/07/191, B/CZ/07/01, B/GB/06/R42/01

B. INFORMATION ON THE GENETICALLY MODIFIED PLANT

1. Identity of the recipient or parental plant

a)	Family name:	*Solanaceae*
b)	Genus:	*Solanum*
c)	Species:	*tuberosum* L.
d)	Subspecies (if applicable):	*tuberosum*
e)	Cultivar/breeding line (if applicable):	P800
f)	Common name:	Potato

2. Description of the traits and characteristics which have been introduced or modified, including marker genes and previous modifications

- improved resistance to *Phytophthora infestans*
- tolerance to Imidazolinone herbicides, mediated by the *ahas* gene as selectable marker gene to identify transgenic cells in tissue culture

3. Type of the genetic modification

a)	Insertion of genetic material:	(x)
b)	Deletion of genetic material:	( )
c)	Base substitution:	( )
d)	Cell fusion:	( )
e)	Other, specify:	...

4. In the case of insertion of genetic material, give the source and intended function of each constituent fragment of the region to be inserted

- T-DNA borders, pTiT37, for incorporation into plant chromosome
- ahas gene, *Arabidopsis thaliana*, imidazolinone tolerance in plant material
- Promoter and terminator from nopaline synthase gene, *Agrobacterium tumefaciens*, gene regulation
- Resistance genes Rpi-blb1 and Rpi-blb2, *Solanum bulbocastanum*, with endogenous promoters and terminators for improved resistance to *Phytophthora infestans*

5. In the case of deletion or other modification of genetic material, give information on the function of the deleted or modified sequences

Not applicable.

6. Brief description of the method used for the genetic modification

Plasmid-derived DNA was introduced into the potato lines by *Agrobacterium*-mediated gene transfer technology using a binary vector system. This is standard technology for potato transformation.

7. If the recipient or parental plant is a forest tree species, describe ways and extent of dissemination and specific factors affecting dissemination

Not applicable.

C. INFORMATION RELATING TO THE EXPERIMENTAL RELEASE

1. Purpose of the release (including any relevant information available at this stage) such as agronomic purposes, test of hybridisation, changed survivability or dissemination, test of effects on target or non-target organisms

The purpose of the release is to assess the tolerance of the genetically modified potato lines to *Phytophthora infestans* under Belgian climatic and soil conditions.

2. Geographical location of the release site

The release site will be located in the municipality of Wetteren.

3. Size of the site (m^2)

The field size will be less than 1500 m2 per year.

4. Relevant data regarding previous releases carried out with the same GM-plant, if any, specifically related to the potential environmental and human health impacts from the release

Releases of the same potato plants have been conducted in the Netherlands, Sweden, the Czech Republic, United Kingdom and Germany. No adverse impacts on the environment or human health have been recorded in any of the trials.

D. SUMMARY OF THE POTENTIAL ENVIRONMENTAL IMPACT OF THE RELEASE OF THE GMPTS IN ACCORDANCE WITH ANNEX II, D2 OF DIRECTIVE 2001/18/EC

The genetically modified potato lines contain two NBS-LRR-genes, Rpi-blb1 and Rpi-blb2, from *Solanum bulbocastanum* for conferring improved resistance to *Phytophthora infestans*. Many conventional potato varieties also contain NBS-LRR-genes that have been introgressed from wild Solanum species. An intended effect of the introduced trait is an increased survivability in potato fields exposed to *Phytophthora infestans*. This possible selective advantage, however, is of importance only in the agricultural field, and will not improve the survivability in the surrounding environment. The reduced need for fungicides on these lines can easily be identified as an environmental benefit.

The ahas gene expressed in the potato plants imparts tolerance to the herbicidal active substance Imazamox to the shoots during the selection process in cell culture. This confers no selective advantage in the field since Imidazolinone herbicides are not approved for use on crops in the UK and since no field tolerance is expected in the potato plants. No difference with respect to persistence in agriculturally utilised habitats or invasiveness into natural habitats as compared to conventional potato varieties is expected. Through the measures which are taken during the release, distance from or absence of conventionally cultivated potatoes or wild species, the possibility of any gene transfer can be virtually ruled out. Even in the very improbable event that pollen were to be transferred to genetically unmodified potato plants, no consequences are to be expected, since potato propagation conventionally takes place via tubers and not

via seeds. The interactions of the genetically modified potato line with non-target organisms and the effects resulting from this will be comparable to those with conventional potato varieties. Furthermore, no toxic or allergenic effects are expected on the basis of the improved resistance to *Phytophthora infestans* or the expressed AHAS protein. No effects on biogeochemical processes are expected, other than those that apply also to conventional potatoes.

E. BRIEF DESCRIPTION OF ANY MEASURES TAKEN BY THE NOTIFIER FOR THE CONTROL OF RISKS INCLUDING ISOLATION DESIGNED TO LIMIT DISPERSAL, FOR EXAMPLE MONITORING AND POST-HARVEST MONITORING PROPOSALS

An isolation distance of 10 m to other commercial potato cultivations will be observed. Planting and harvesting equipment will be cleaned on site to prevent the dispersal of GM tubers. There will be no potato cultivation on the release area the year following the release. Potential volunteers will be monitored and removed according to conventional agricultural practice. During the release the trial site will be monitored at defined intervals.

Measures in place under current field trial practice will safeguard that all seed and plant material is properly managed, harvested, stored, transported or disposed of. The GM potato lines will be cultivated under conventional agricultural practices.

F. SUMMARY OF PLANNED FIELD TRIALS DESIGNED TO GAIN NEW DATA ON THE ENVIRONMENTAL AND HUMAN HEALTH IMPACT OF THE RELEASE (WHERE APPROPRIATE)

Not applicable.