

THE RESULT OF DELIBERATE RELEASE INTO THE ENVIRONMENT OF GENETICALLY MODIFIED HIGHER PLANTS IN ACCORDANCE WITH ARTICLE 10 OF DIRECTIVE 2001/18/EC

1 GENERAL INFORMATION

1.1 European notification number: [B/RO/07/10](#)

1.1.1 Member State of notification: [Romania](#)

1.2 Date of consent and consent number: [no.10/April 23, 2007](#)

2 REPORT STATUS

2.1 Please indicate whether, according to Article 3 of the present Decision, the current report is:

- the final report
- a post-release monitoring report
 - final
 - intermediary

[The current report is the annual end of campaign report for 2010.](#)

3 CHARACTERISTICS OF THE RELEASE

3.1 Scientific name of the recipient organism: [Zea mays L.](#)

3.2 Transformation event(s) (acronym(s) or vectors¹ used (if transformation event identity not available): [98140x1507x59122](#)

3.3 Unique identifier, if available: [DP-Ø9814Ø-6xDAS-Ø15Ø7-1xDAS-59122-7](#)

3.4 Please provide the following information as well as the field(s) layout:

¹ In the case of small-scale field trials where several lines may be tested, the vectors used should be mentioned, which gives insight into the introduced traits and/or genetic elements. In the case of larger-scale trials, the number of events notified is limited to only one or a few events.

Geographical location(s) (administrative region and, where appropriate, grid reference)	Size of the release site(s) ⁽²⁾ (m ²)	Identity ⁽³⁾ and approximate number of GM higher plants per event actually released (number of seeds/plants per m ²)	Duration of the release(s) (from ... (day/month/year... until... (d/m/y)
Caracal (Olt county)	- Total surface of the release: 2922.74 m ² - 98140x1507x59122 maize area: 85.12m ²	98140x1507x59122 maize: 6 plants/m ²	From: 02/06/10 to: 26/10/10
Timisoara (Timis county)	- Total surface of the release: 2922.74 m ² - 98140x1507x59122 maize area: 85.12m ²	98140x1507x59122 maize: 6 plants/m ²	From: 09/06/10 to: 27/11/10

⁽²⁾ Specify the size of the GM area and, where appropriate, the size of the non-GM area (e.g. non-GM border)

⁽³⁾ Vectors used

See the trial layouts in Annex 1.

4 ANY KIND OF PRODUCT THAT THE NOTIFIER INTENDS TO NOTIFY AT A LATER STAGE

4.1 Does the notifier intend to notify the released transformation event(s) as product(s) for placing on the market under Community legislation(s) at a later stage?

YES (by another juridical entity of the group) NO Unknown to date

If yes, indicate the country(ies) of notification: *unknown to date*

If yes, specify for which use(s):

- Import
- Cultivation (eg ; seed/planting material production)
- Food
- Feed
- Pharmaceutical use (or processing for pharmaceutical use)
- Processing for
 - Food use
 - Feed use
 - Industrial use
- Others (specify): *It will be used like any commercial maize.*

5 TYPE(S) OF DELIBERATE RELEASE(S)

Please select the main type(s) (in boxes) as well as subtype(s) of the release(s). In the case of multi-sites, multi-events and/or multi-annual release(s), please provide a general overview of the type(s) of deliberate release(s) which has/have been carried out for the full duration of the consent. Please tick the appropriate type(s):

5.1 Deliberate release(s) for research purposes

5.2 Deliberate release(s) for development purposes

- Event screening
- Proof of concept ²
- Agronomic performances (e.g. efficiency/selectivity of plant protection product, yield capacity, germination capacity, crop establishment, plant vigour, plant height, susceptibility to climatic factors/diseases, etc.) (specify)
- Altered agronomic properties (e.g. disease/pest/drought/frost-resistance, etc.) (specify)
- Altered qualitative properties (prolonged shelf-life, enhanced nutritional value, modified composition, etc.) (specify)
- Stability of the expression
- Multiplication of lines
- Hybrid vigour study
- Molecular farming³
- Phyto-remediation
- Others: (specify) *collect the data required by the EU regulations for the placing on the market of varieties which may be sprayed with the registered herbicides.*

5.3 Official testing

- Variety registration on a national variety catalogue
 - DUS (=Distinctness, Uniformity and Stability)
 - VCU (=Value of Cultivation and Use)
- Others : (specify) :

² For example, testing the new trait under environmental conditions.

³ « Molecular farming » means the production of substances (for instance, proteins, pharmaceuticals) by plants, which have been genetically modified for a particular trait. “Molecular farming” could be defined as well as the production of plant-synthesized pharmaceuticals, plant-made pharmaceuticals, plant-based proteins production, etc.

5.4 Herbicide authorization

5.5 Deliberate release(s) for demonstration purposes

5.6 Seeds multiplication

5.7 Deliberate release(s) for biosafety/risk assessment research

- Vertical gene transfer studies
 - Out-crossing with conventional crops
 - Out-crossing with wild relatives
- Horizontal gene transfer studies (gene transfer to micro-organisms)
- Management of volunteers
- Potential changes in persistence or dispersal
- Potential invasiveness
- Potential effects on target organisms
- Potential effects on non-target organisms
- Observation of resistant relatives
- Observation of resistant insects
- Others: (describe)

5.8 Other(s) type(s) of deliberate release(s) :

(Describe) :

6 METHOD(S), RESULT(S) OF THE RELEASE, MANAGEMENT AND MONITORING MEASURE(S) IN RESPECT OF ANY RISK TO HUMAN HEALTH OR THE ENVIRONMENT

6.1 Risk management measure(s)

Please report the risk-management measures, which have been used to avoid or minimize the spread of the GMO(s) outside the site(s) of release, and in particular those measures:

- *Which were not originally notified in the application,*
- *Which were applied in addition to the conditions in the consent,*
- *Which the consent required only under certain conditions (e.g. dry periods, flooding),*
- *For which the consent allowed the notifier a choice among different measures.*

Tick the examples where appropriate:

6.1.1 Before the sowing/planting:

- Clear labeling of the GM seeds (distinct from other seeds/tubers/etc.) (describe)
 - *Seeds were received packed in small paper bags which remained closed until planting. Each small paper bag was clearly labeled with the test entry code comparable to the code in the experimental protocol. Each small paper bag contained the seed for one row.*

- The transgenic seed bags were accompanied by a document indicating the name of the transgenic maize, the unique identifier code and the mention "contains genetically modified organism".
- Segregation during the processing and transport of the seed/planting material (describe the method involved; provide example(s) of containment to prevent spillage during the processing and transport)
 - Transport of the seed to the field was done on the planting day, in the original small paper bags in which the seeds were received, ordered according to the trial design, and placed inside appropriate closed, sealed and labeled boxes.
 - No processing of the seed was done before planting.
- Destruction of superfluous seeds/planting material (describe the method involved).
 - All the genetically modified seeds were planted in Timisoara and Caracal.
- Temporal isolation (specify)
- Rotation (specify the previous crop)
- Other(s): (specify):
 - The isolation distance to other maize crop was verified to be in accordance with the permit conditions (at least 200 m).

6.1.2 During the sowing/planting activities :

- Method of sowing/planting (describe)
 - Seeds were planted manually.
- Emptying and cleaning of the sowing machinery on the field of release.
 - Not applicable.
- Segregation during the sowing (provide example of containment to prevent spillage during the sowing/planting).
 - The seed were in small paper bags which were opened just as needed for each row planting.
- Other(s): (specify)

6.1.3 During the period of release:

- Isolation distance (x meters)
 - From sexually compatible commercial plant species
 - An isolation distance of at least 200 m was kept from any other maize crops.
 - From sexually compatible wild relatives
 - Not applicable, maize has not any sexually compatible wild relatives in Europe.
- Border rows (with the same crop or a different one, with a non-transgenic crop, x meters, etc)
 - At least four border rows of non-genetically modified maize of a similar maturity surrounded the trial.
 - At the end of the release, these border rows were destroyed like the rest of the plants in the trial.
- Cage/net/fence/signpost (specify):
- Pollen trap (specify):
 - At least four border rows of non-genetically modified maize were planted around the trial to create a pollen trap.
 - At the end of the release, these non-GM rows were destroyed like the rest of the trial.
- Removal of GM inflorescences before flowering (indicate the frequency of removal)

- Other(s): (specify)
 - Inspectors of Olt and Timis Directions for Agriculture and Rural development visited the trials in Caracal and in Timisoara several times during the release.

6.1.4 *At the end of the release*

- Harvest/destruction methods (of crop or part of it) / other means (e.g.: sampling) (describe)
 - Different plant tissues were sampled and frozen on the site of release, at several stages of maize development, and exported in view of their analysis in a specialized laboratory outside Romania.
 - The remaining plant materials were destroyed by chopping and incorporation into the soil by a deep ploughing.
- Harvest / destruction before the ripeness of the seeds
- Effective removal of plant parts
- Segregated storage and transport of crop/waste (provide examples of containment to prevent spillage of collected seeds/crops/wastes)
 - The samples collected for analysis were hermetically packed at the site of release in a clearly labeled double container and frozen on the site.
- Clean up of machinery on the release site.
 - Equipments (threshers, choppers) and other tools used for sampling and harvest were carefully cleaned on the release site after utilization.
- Destination of the waste, treatment of waste/ surplus yield/plant residues (describe)
 - Waste plants were destroyed on the release site by chopping and were incorporated into the soil by deep ploughing.
- Post-harvest treatment and cultivation measures on the release site (describe the method for preparing and managing the release site at the end of the release, including cultivation practices)
 - All the remaining plant material, including border rows, were chopped and then incorporated into the soil by deep ploughing.
- Other(s): (describe):
 - Inspectors from Directions for Agriculture and Rural Development, local agencies for Environmental Protection and Environmental Guard and other authorities attended the trial destruction and wrote a report certifying that appropriate procedures have been used for correct field destruction.

6.1.5 *Post-harvest measures:*

Please indicate which measures were taken on the release site after harvest:

Frequency of visits (average)

The sites have been visited regularly for a one year-period after the end of the release and the monitoring will continue for an additional one year-period, as required in the permit.

- Subsequent crop (specify)
 - No commercial maize crop was planted in the same trial area during the year following the release. Spring barley was planted at Timisoara and sunflower was planted at Caracal.
- Crop rotation (specify)
 - No commercial maize crop was planted in the same trial area during the first year following the release (see subsequent crops above).
- Fallow/no crop (specify)
- Superficial soil work / no deep ploughing

- False-sowing beds
- Control of volunteers (specify intervals and duration).

The release sites have been visited every two months during the first year of post-release monitoring in order to control and manage the occurrence of potential volunteers. No volunteers were observed to date.

- Appropriate chemical treatment(s) (specify)
- Appropriate soil treatment(s) (specify)
- Other(s) (specify)

6.1.6 Other(s) measure(s): (describe)

6.1.7 Emergency plan(s)

Indicate:

a) If the release proceeded as planned :

- Yes, in Timisoara and Caracal.
- ~~No (describe for which reason, e.g. vandalism, climatic conditions, etc.)~~

b) if measures according to the emergency plan(s) (Article 6(2)(a)(vi) and Annex III.B of Directive 2001/18/EC) had to be taken

- No
- ~~Yes (describe)~~

6.2 Post-release monitoring measures

Due to the fact that the current report format can be used for the final and post-release monitoring report(s), the notifier is asked to clearly make the difference between both types of report through this section 2 of Chapter 6. Please indicate whether

- **The post-release monitoring plan will start** (in the case of a final report, after the last harvest of the GM higher plants),
- **The post-release monitoring plan is ongoing** (in the case of an intermediary post-release monitoring report),
- **The post-release monitoring plan has been completed** (in the case of the final post-release monitoring report)
- **No post-release monitoring plan has to be fulfilled.**

The results of this monitoring are meant to confirm or invalidate earlier assumptions in the risk assessment.

According to the aforementioned cases, please indicate which monitoring measure(s) will be/are/were taken and where (on the release site/near the site (e.g. on fields edges)). Please be aware that all post-release monitoring measures taken during the whole post-release period shall be indicated here.

The destruction of the trials was made on October 26, 2009 in Caracal and November 27, 2009 in Timisoara. The post-release monitoring plan started on these dates. *Although no volunteers were found during the first post-release monitoring year, it will be continued for one more year, as required in the permit.*

Specify:

- Monitoring measures within site

Duration: 24 months from end of the release

Frequency of visits (average): Approximately every two months

- —
- ~~Observation of resistant relatives~~
- ~~Observation of resistant insects~~
- Control of volunteers (specify intervals and duration)

Approximately every two months during the two-year period following the end of the release

Particularly:

- - Immediately after harvest to check the application of appropriate measures of post-harvest treatment of the sites of release.
- - During 2010 emergence and flowering periods.
- - During 2011 emergence and flowering periods.

No volunteers were observed to date.

- ~~Monitoring of gene flow (specify)~~
- ~~Appropriate chemical treatment(s) and/or soil treatment(s)~~
- Others (specify)

- Monitoring measures of adjacent areas: Not applicable

Duration

Frequency of visits (average) :

Area monitored :

- Observation of resistant relatives
- Observation of resistant insects
- Control of volunteers and/or monitoring of feral populations (specify intervals and duration)
- Monitoring of gene flow (specify)
- Appropriate chemical treatment(s) and/or soil treatment(s)
- Others (specify)

6.3 Plan for observation(s)/methods(s) involved

In this section the observation plan and the methods used to collect the effects which have to be reported under the next section (section 6.4) need to be specified. Any amendments or modifications to the plan as proposed in the application and the SNIF⁴ part B need to be specified in detail.

During the time between the notification and the final report submission, new scientific insights or methods may be developed which cause a change in the methods used. In particular these modifications need to be specified under this section.

- Visual observations were and will be made in accordance with the monitoring plan proposed in the notification.

⁴ Summary notification information format (=SNIF)

6.4 Observed effect(s)

6.4.1 Explanatory note

All results of the deliberate release(s) in respect of any risk for human health or the environment shall be stated, without prejudice to whether the results indicate that any risk is increased, reduced or remains unchanged.

The main objectives of the information given in this section are:

- To confirm or invalidate any assumption regarding the occurrence and impact of potential effect(s) of the GMO(s) which was/were identified in the environmental risk assessment,
- To identify effect(s) of the GMO(s) which was/were not anticipated in the environmental risk assessment.

The observed **effect(s)/interaction(s)** of the GMO(s)

- with respect to any risk to human health,
- with respect to any risk to the environment

shall be reported under this section.

Particular attention shall be drawn to unexpected and unintended effect(s).

Indications as regards the effects, that the notifier may have to report, are provided hereunder. The effects have obviously to be considered in the light of the crop, the new trait, the receiving environment as well as the conclusions of the environmental risk assessment, which is carried out on a case-by-case basis.

In order to structure the information and to facilitate an efficient search within the given information, the notifier shall use, as far as possible, specific keywords to fill in the text fields under Chapter 6, especially sections 6.4.2, 6.4.3 and 6.4.4. A most updated list of those specific keywords is available on the Internet at : <http://gmoinfo.jrc.it>.

6.4.2 Expected effect(s)

This section concerns « expected effects », that is to say, potential effects which were already identified in the environmental risk assessment of the notification and could therefore be anticipated.

Notifiers should supply data from the deliberate release(s) which validate the assumptions made in the environmental risk assessment.

- The potential reduction in the control of certain lepidopteran insects, such as the European corn borer (*Ostrinia nubilalis*) and certain coleopteran insects, such as the Western corn rootworm (*Diabrotica virgifera virgifera*), if the target insect pests develop resistance to the insecticidal proteins as expressed in the genetically modified 98140x1507x59122 maize, has been identified in the environmental risk assessment of the notification, as the only potential risks resulting from the interaction between the genetically modified maize and the target organisms.

- In the trials carried out, no loss of efficacy of 98140x1507x59122 maize plants on European corn borer was detected. Concretely, no damages caused by the European corn borer were observed on 98140x1507x59122 maize plants, which lead to the conclusion that there was no developed resistance in the target lepidopteran insects. This confirms that in the case of the trials carried out the likelihood of the occurrence of this potential identified adverse effect was negligible, taking into account the small surface occupied by the trials.
- The presence of the target coleopteran insects, *Diabrotica virgifera virgifera*, has not been recorded at the Caracal location, thus no development of resistance in the target insects was detected in the case of the trial carried out. At the Timisoara location, no damages caused by the Western corn rootworm were observed on 98140x1507x59122 maize plants, which lead to the conclusion that there was no developed resistance in the target coleopteran insects. This confirms that in the case of the trials carried out the likelihood of the occurrence of this potential identified adverse effect was negligible, taking into account the small surface occupied by the trial.
- No effects were expected and observed during the first year of post-release monitoring.

6.4.3 Unexpected effect(s)⁵

“Unexpected effects” refer to effects on human health or the environment which were not foreseen or identified in the environmental risk assessment of the notification. This part of the report should contain any information with regard to unexpected effects or observations relevant for the initial environmental risk assessment. In case of any observed unexpected effects or observations, this section should be as detailed as possible to allow a proper interpretation of the data.

- No damage or any kind of negative effects on human health or environment were observed during the release and post-release monitoring period.

6.4.4 Other information

Notifiers are encouraged to supply information, which is outside the scope of the notification but which might be relevant to the field trials in question. This may also include observations of beneficial effects.

None

⁵ Without prejudice to Article 8 of Directive 2001/18/EC as regards handling of modifications or new information.

7 CONCLUSION

In this chapter, the notifier should specify the conclusions drawn and the measures taken or to be taken on the basis of the results of the release with regard to further release(s) and where appropriate, make reference to any kind of product the notifier intends to notify at a later stage.

- In the frame of these deliberate releases, all the control measures were taken to avoid the spreading of pollen and grains of the genetically modified 98140x1507x59122 maize plants during and after the deliberate release.
- No negative effect of any kind has been observed that has or could have effects on the human health or the environment.
- No risk for the human health or the environment has been identified as a result of the deliberate release of the genetically modified 98140x1507x59122 maize in these trials.
- The measures proposed in the notification and practical application of the control measures have been consistent with the purpose of guarantying the safety of the environment and of the human health.

DATE: 14 December, 2010

ANNEX 1: Field Layout

Locations: Caracal (Olt county) and Timisoara (Timis county)

