COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 6 March 2012

COMMISSION STAFF WORKING DOCUMENT

EXECUTIVE SUMMARY OF THE IMPACT ASSESSMEMT

Accompanying the document

Proposal for a

COMMISSION IMPLEMENTING DECISION

repealing Decision 2003/766/EC on emergency measures to prevent the spread within the Community of *Diabrotica virgifera* Le Conte

EN

1. PROBLEM DEFINITION

Background

Diabrotica virgifera virgifera (Western Corn Rootworm, named hereafter "*Diabrotica*") is an insect pest native of the North America, where it is considered, together with the closely related *Diabrotica barberi* (Northern Corn Rootworm), the most serious insect pest of maize. In the EU *Diabrotica* is a regulated harmful organism, listed in Annex I, Part A, Section II of Council Directive 2000/29/EC. Consequently its introduction into, and spread within, all Member States is banned.

Diabrotica was first detected in Europe in former Yugoslavia in 1992. From there the pest started to spread across the continent through natural migration. As it is an injurious non-native pest, Commission Decision 2003/766/EC on "emergency measures to prevent the spread within the Community of *Diabrotica virgifera* Le Conte" was adopted on 22 October 2003 to contain its spread across the EU in order to protect the cultivation of maize, one of the most important crop plants in the EU. According to this Decision, Member States have to conduct yearly official surveys for the presence of the insect in areas of their territory, where maize is grown. In case of an outbreak in an area which was previously known to be free from *Diabrotica*, defined measures have to be taken with the aim of eradication of the insect, such as the implementation of a defined crop rotation scheme and the application of appropriate treatments on maize fields (insecticides) in the focus zone of the outbreak and a safety zone located around it.

In 2006 additional requirements were introduced for the containment of *Diabrotica* in the infested zones. Pest containment is based on the definition of a "containment zone" (a buffer zone) at the boundary between the infested and the free zone, in which measures are taken to control the pest to limit its further natural spread out of the infested zone. Pest containment also relies on the application of measures against *Diabrotica* in the rest of the infested zone, aiming at reducing the pest population density (suppression measures).

Problem identification

Based on stakeholder consultation and annual spread data it is considered that the current legislative framework, aiming at containing the spread of the pest and preventing further infestations occurring across the EU, is not functioning properly, and the pest continues to spread into previously free areas.

This is due to several factors such as:

- *natural spread by flight* which is not blocked by the containment programmes implemented,
- *introduction of the pest through road transport* (passive spread of the pest), which is not addressed in the present regulation, and late detection of the resulting outbreaks (resulting in eradication failures),
- *insufficient suppression of the pest population by Member States in the infested zone*,

- *reticence of farmers to implement the official control measures* due to their cost and the limited possibilities of financial aid to support these costs.

The above problems have resulted in the cost-effectiveness of the present measures being questioned. Some stakeholders actually consider that, in light of its present distribution in the EU territory, this pest no longer deserves EU regulation controlling its spread. Moreover, efficient control methods against this pest are available which can be deployed by farmers to safeguard their maize yields (in particular the environmentally friendly implementation of a crop rotation).

The present regulatory framework, which is considered to be too inflexible by some stakeholders, is characterised by an uneven distribution of costs and benefits across the EU. This framework was originally conceived in 2003 and it was amended in 2006 to take into account the accession of new east European Member States in 2004, which were already infested by *Diabrotica*. It is therefore necessary to review the current system and to consider alternative options that are more appropriate and proportionate to address the spread of the pest.

Intervention necessary

Whilst EU emergency measures already are in place to control this pest, there has been increasing pressure from some Member States, and from farmer's organisations, to considerably review/amend the current rules in the light of the ongoing spread of the pest in the past years into new regions. Decision making will require a long-term EU strategy against *Diabrotica*, based on an evaluation of different potential policy options for their economic, environmental and social impact, and the resulting cost/benefit ratio, as well as of the feasibility of successful implementation. Although a lot is known about the pest in terms of its biology and means of control there has not, as yet, been any structured assessment at EU level of the benefits and disadvantages of various options for the long-term strategy. Consequently this impact assessment was prepared taking into account the latest technical and scientific data that have been generated since the adoption of the existing EU measures (derived in part from EU funded trans-national projects, such as the EU-funded (FP6) DIABR-ACT project; http://www.diabract.org) as well as the practical experience from the application of current EU measures.

2. ANALYSIS OF SUBSIDIARITY

The legal basis for EU legislative measures on plant health is provided by article 43 of the Treaty on the functioning of the European Union. The EU plant health regime aims at protecting the EU against the harm caused by the introduction and spread of harmful organisms, and thus to ensure food security and safety and the protection of the public and private green, forests, and the landscape (the natural environment). The present basic legal framework is Council Directive 2000/29/EC.

3. POLICY OBJECTIVES

The general objective of EU regulation against *Diabrotica* is to ensure coherence and consistency with the EU Plant Health Regime, which is in place to protect the EU from the

harm caused by the introduction and spread of organisms injurious to plants and plant products. *Diabrotica* regulation should also be consistent with wider EU objectives (e.g. sustainability and smart regulation).

The general policy objective for this initiative is to establish a proportionate regulatory regime against *Diabrotica* that takes into account its long-term economic, environmental and social impacts, and that will promote competitiveness of the agricultural sector across the EU and contribute to a sustainable production of maize in the EU.

The specific objectives are:

- To define a strategy against *Diabrotica* that will allow a competitive maize production in the EU (avoiding that there is a profound difference in the distribution of burden/benefits among farmers/regions)
- To define a strategy against *Diabrotica* that will stimulate a sustainable maize production in the EU (lower environmental impact)
- To define a strategy against *Diabrotica* that is proportionate to the threat posed by this pest to maize production but that also takes into account the present distribution of the pest in the EU and the availability of effective control tools
- To define a strategy against *Diabrotica* that adequately addresses differences at the local level of maize production systems and that ensures sufficient flexibility for its implementation and enforcement.

To define a strategy against *Diabrotica* that ensures relatively stable levels of maize production in the EU, to avoid disruption to the EU and international maize markets as well as to the agriculture and food sector.

4. POLICY OPTIONS

Policy option 1: No changes to existing provisions

Policy option 2: Relaxation of existing provisions:

- 2a) Focus on protection of free areas through the establishment of “protected zones" (pest-free zones with environmental conditions favourable for pest establishment but which are kept free through appropriate measures).
- 2b) Reduction/relaxation of present obligations concerning rotation frequencies and pesticide use for both eradication and containment of the pest.

Policy option 3: No regulation of the pest

Policy option 4: Strengthening of existing provisions for containment of the pest at the border of current infested zones

- 4a: Make crop rotation and pesticide use obligatory for the containment zone - prescribe measures for pest suppression in the rest of the infested zone
- 4b: Prohibit maize cultivation in the containment zone (“non-maize belt”) - prescribe measures for pest suppression in the rest of the infested zone

Option 5: Complete eradication of the pest from the territory of the European Union

5. ASSESSMENT OF IMPACTS

All quantitative data on the impact of the policy options provided in the impact assessment report are taken from the final report of the *Diabrotica* study prepared by the Food Chain Evaluation Consortium (FCEC, see annex II). The report is based on the technical and economic information presently available, however in order to make quantification possible, assumptions had to be made. The key assumption is the use of a 25 years period to estimate the costs and benefits. Such a timeline was used based on the experts' assumption that, if the present eradication measures for isolated outbreaks would stay in place (policy option 1 – status quo), the pest would be spread naturally over the entire EU in 25 to 30 years. Such a long timeline is also required to allow for reliable comparison between policy options, as options aiming at relaxing the current EU legislation will lead to reduced costs at short term and increased costs at long term whereas options aiming at strengthening the legislation will lead to the opposite.

The main areas of focus for this impact assessment are the economic, environmental and social impacts of the options, as well as their impact on administrative burden. Other impacts relating to total EU maize production, third country trade and crop quality and human health were also included in the analysis but, during discussions with stakeholders, Member States and experts, they were not considered to be as significant.

Summary of impacts:

Impact:	**1 (status quo)**	**2a**	**2b**	**3 (deregulation)**	**4a**	**4b**	**5 (eradication)**
Economic	**0**	+	=	=	+	+	-
Environmental	**0**	=	=	=	+	+	++
Social	**0**	-	+	++	- -	- -	- - -
Administrative Burden	**0**	-	+	+++ (no more administrative burden)	- -	- -	- - -

Table 1: Ranking of policy options according to their efficiency

Efficiency rating scale:

0	**Status quo (policy option 1): reference for comparison**	**=**	**Similar impact than the status quo (policy option 1)**
+	**Small positive impact**	**-**	**Small negative impact**
++	**Medium positive impact**	**- -**	**Medium negative impact**
+++	**Large positive impact**	**- - -**	**Large negative impact**

6. COMPARISON OF OPTIONS

In order to measure its effectiveness, each option has been rated against the initial objectives of the review to determine which option best met the aims of the review.

		Option 1	Option 2a	Option 2b	Option 3	Option 4a	Option 4b	Option 5
General objective	To define a long-term strategy to deal with the non-native pest *Diabrotica* in the EU	0	+	=	+++	+	+	++
Specific objectives	To define a strategy against *Diabrotica* that will allow a competitive maize production in the EU (avoiding that there is a profound difference in the distribution of burden/benefits among farmers/regions)	0	=	++	+++	--	--	---
	To define a strategy against *Diabrotica* that will stimulate a sustainable maize production in the EU (lower environmental impact)	0	=	=	=	+	+	++
	To define a strategy against *Diabrotica* that is proportionate to the threat posed by this pest to maize production but that also takes into account the present distribution of the pest in the EU and the availability of effective control tools	0	-	++	+++	--	--	---
	To define a strategy against *Diabrotica* that adequately addresses differences at the local level of maize production systems and that ensures sufficient flexibility for its implementation and enforcement	0	-	++	+++	--	---	---
	To define a strategy against *Diabrotica* that ensures relatively stable levels of maize production in the EU, to avoid disruption to the EU and international maize markets as well as to the agriculture and food sector.	0	=	=	=	-	--	---

Table 2: Ranking of policy options according to their effectiveness

The comparative rating system used is:

"0": **Status quo (policy option 1), reference for comparison**

"=": Similar effectiveness than the status quo

"+++": Highest effectiveness compared to the status quo

"---": Lowest effectiveness compared to the status quo

<u>Ranking of the policy options combining efficiency and effectiveness criteria</u>

Based on the ratings assigned to policy options in the tables above it appears that no option consistently scores best for all the criteria assessed.

In general terms strengthening the present regulatory framework against *Diabrotica* (such as in policy options 4a and 4b) and consequently delaying or blocking the further spread of the pest into presently non-infested areas, has the lowest economic impact for the EU as a whole

in the 25-year period analysed, as well as a lower environmental impact. However, these options are also characterised by a highly unbalanced distribution of burden/costs and benefits and they would have a high social impact and administrative burden in the areas where enhanced containment measures or a buffer zone would need to be deployed. The present EU regulation against *Diabrotica* (policy option 1) already also shows an uneven distribution of burdens and benefits, which is linked to the uneven distribution of the pest and the resulting need to take measures in the infested zones to contain the pest, for the benefit of the non-infested zones. However, policy options 4a and 4b further increase the unequal distribution of burdens and benefits, since farmers in the infested area and its vicinity are requested to implement stricter measures for the containment of the pest. The implementation of policy options 4a and 4b would also be complex and a lack of compliance would undermine their objectives and challenge their cost-effectiveness. These two options are also not favoured by maize stakeholders and the majority of the Member States, who consider that it would not be feasible to implement them in practice. Consequently options 4a and 4b do not rank high in terms of combined efficiency and effectiveness criteria. The same is true for options 1 (status quo) and 5 (eradication) since during the policy development process and consultation with stakeholders and Member States, they were not considered feasible in practice.

From the policy options aiming at a relaxation of the present regulatory framework, option 2a (Focus on protection of free regions through the establishment of "protected zones") is the one with the predicted lowest economic impact. However, this option did not rank high in terms of combined efficiency and effectiveness criteria because of it its uneven distribution of burden/benefits among farmers and regions, and high social and administrative burden impact, all of these linked to the need to create a buffer zone to prevent the natural spread of *Diabrotica* into the protected zone. Moreover, its feasibility of implementation and effectiveness are challenged by stakeholders.

On the other hand, the remaining two options aiming at a relaxation of the present EU regulatory framework against *Diabrotica* (options 2b and 3) received, in average, the highest ranking in terms of combined efficiency and effectiveness criteria.

Policy option 2b relaxes the existing obligations concerning rotation frequencies and pesticide use for both eradication and containment of the pest. Since the natural spread of the pest from the infested area into the free area is not stopped and outbreak eradication is less effective, the adoption of this policy option acknowledges the fact that the infested zone will anyway continue to expand and will eventually occupy all EU maize growing areas offering the suitable climatic conditions for *Diabrotica* establishment. The expectation is that full infestation would be reached in about 20 years, which is just about 5 years later than if all EU *Diabrotica* regulation is dropped (option 3 – deregulation). Consequently, option 2b is only a medium-term policy option since after full infestation of the EU maize growing areas with *Diabrotica* it would have to be repealed and replaced by the deregulation of this pest. Policy options 2b and 3 decrease the uneven distribution of burdens and benefits of the present EU regulation against *Diabrotica* since obligations for containment of the pest in the infested zone are removed. Therefore the measures against the pest applied by farmers do not go beyond what is needed to safeguard their maize yields.

Taking into account the present wide distribution range on the pest in the EU maize growing areas (*Diabrotica* is presently established in more than half of the EU maize growing area) and the technical and political complexity for implementing stricter measures to block the further spread of the pest, in terms of efficiency of intervention, deregulation of the pest at the EU level could be envisaged. The fact that efficient means of control exist to safeguard maize yields from *Diabrotica* (mainly crop rotation and insecticides) also questions the value of keeping/introducing EU measures to temporarily slow down the spread of an already widely

spread pest. The availability of efficient means to control *Diabrotica* also means that its presence or its further spread under policy options 2b and 3 do not have an impact on the level and stability of maize production in the EU and do not lead therefore to a disruption to the EU and international maize markets as well as to the agriculture and food sector.

When comparing the impacts of relaxing the present measures (option 2b) versus deregulation (option 3), the total costs estimated are quite similar. From the environmental point of view, deregulation and the relaxation of measures have a very similar environmental impact (similar predicted level of insecticide use as well as of hectares under crop rotation). However, insecticide use is predicted to be higher than for policy options strengthening the present regulatory framework, since under options 2b and 3 the pest keeps on spreading to free areas and there is therefore the need to introduce measures to suppress its population. Since for this population suppression not only insecticides are used but also crop rotation, the predicted number of hectares under crop rotation (a positive environmental impact) is also expected to be higher in options 2b and 3 than in options strengthening containment measures (4a and 4b). In principle, the expected higher volume of insecticide use under options 2b and 3 could be considered not to cause unacceptable direct or indirect impacts on the environment, since plant protection products authorised in the EU should not have, when correctly used, a substantial environmental impact The use of plant protection products in the EU is also strictly controlled and monitored. Still, insecticides remain, in general, hazardous compounds and therefore it is relevant to reduce dependency on the use of plant protection products and promote the use of sustainable non-chemical control methods, such as crop rotation. It is expected that the implementation of Directive 2009/128/EC on the sustainable use of pesticides will promote the use of crop rotation and other sustainable non-chemical methods for the control of *Diabrotica*, thereby decreasing the environmental impact of the control of this pest in present and future infested zones. However, in order to further stress the relevance of a sustainable control of *Diabrotica* in the EU it would be appropriate to accompany the deregulation of *Diabrotica* as a quarantine pest (option 3) with the adoption of a new Commission Recommendation on measures for its sustainable control. This Recommendation would clearly indicate that crop rotation and other non-chemical methods for the control of *Diabrotica* should be favoured, in line with the principles of integrated pest management laid down in Directive 2009/128/EC. As for the social impact, options 2b and 3 are expected to have the lowest impact of all policy options analysed, since in the absence of EU regulation the farmers are free to decide on the control strategy to deal with *Diabrotica* and their choice is expected be the one that is least disruptive for their specific production system and therefore the one with the lowest social impact. The administrative burden linked to EU regulation would be the lowest in option 2b and it would be obviously zero in the context of deregulation (option 3).

7. MONITORING AND EVALUATION

The present EU regulatory framework against *Diabrotica*, in particular Commission Decision 2003/766/EC, includes appropriate arrangements for monitoring and evaluating the measures in place. These include the notification of outbreaks and the definition of the corresponding demarcated areas, notification of the results of the official surveys for the presence of the pest, and the notification of infested zones and the associated containment programmes. The operation of this Decision is reviewed yearly.

Comparable appropriate monitoring and evaluation arrangements will be developed for the policy option that will be chosen for a future Commission proposal on *Diabrotica*. However, if *Diabrotica* is deregulated, and therefore it is no longer a quarantine pest in the EU, it is

considered that it would not be necessary to develop EU-level activities relating to common monitoring standards and the actual monitoring of the spread of the pest.