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Agriculture and Life Sciences in the Economy

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EUROPEAN COEXISTENCE BUREAU

SUMMARY CONCLUSIONS OF THE THIRD PLENARY MEETING OF THE TECHNICAL WORKING GROUP FOR MAIZE OF 3-4 MAY 2010 SEVILLE, SPAIN

Attendance:

- Commission staff

(M. Czarnak-Klos, E. Rodriguez, JRC-IPTS, European Coexistence Bureau)
(D. Plan, JRC-IHCP)
(M. Gómez DG AGRI)
(A. Stengel DG SANCO)

- TWG Maize members[1],
- Invited expert[2] from IRTA-Barcelona-Spain

The draft agenda (see attached document) was approved.

The main conclusions from the meeting are summarised below.

1. Discussion on comments submitted by TWG members to the 2nd draft of the Best Practice Document for maize coexistance

- Volunteers and whole plant maize production

A comment made by German TWG Member on volunteers and their possible contribution to the GM content in whole plant production was discussed. Amendments and general recommendations regarding management practices were considered

[1] TWG Members representing AT, CZ, DE, DK, FR, IE, IT, LU, NL, SI and UK participated in the meeting; representatives of ES and PT were present during the first day of the meeting.
[2] Participation only in the second day of meeting

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unnecessary. The fact that volunteers may increase GM content in both grain maize (as a source of GM pollen) and whole plant maize will be mentioned in the text.

- The use of buffer zones as coexistence measure for Herbicide Tolerant GM maize

A comment made by French TWG Member on the issue of buffer zones as a recommended measure for both Bt and HT maize was reconsidered by the TWG. In the case of HT trait, farmers growing GM HT maize who would like to use buffer zones as coexistence measure will need to implement two regimes of weed control. The possible technical difficulties of this were stressed by French TWG Member. The TWG decided to state in the document that buffer zones are equally effective to reduce gene flow for any of the two types of traits. TWG concluded that the concrete recommendations on how to manage buffer zones in the case of HT maize could not be included in the document due to the absence of practical experience.

- Isolation distances

Three changes were discussed on this chapter:

First, at the request of Dutch Member and after discussion in the TWG, the agreement was to change text of page 32[3] and 33 (explanatory notes to the tables 4 and 5). A new text developed by BDP author and some of TWG Members was agreed by the TWG Members:

The range is based on the proposals of the TWG Members, which have been analysed and adjusted by the ECoB (see Appendix). They represent the ranges of values obtained by different field trials and methods of analysis which were chosen as suitable for the different MS requirements e.g. climate, agricultural, landscape.

On Table 5 an additional sentence will be added:

Silage maize contains a maximum of 50 % of GM content compared to grain maize, distances shown are therefore lower than in table 4.

On the request of Austrian Member, the TWG Maize discussed the issue of differences in recommendations for isolation distances in case of grain maize and the whole plant use. In order to harmonise the recommendations for grain and whole plant use the table on page 48 was amended – the proposal of TWG Member representing UK for isolation distances for whole plant use, based on GM calculator, was included:

	EL	IRL	UK	Range of proposals
0.1 %	120.5 m	86m	**116 m**	**86 to 120.5 m**
0.2 %	58 m	65m	**49 m**	**49 to 65 m**
0.3 %	36.5 m	53m	**28 m**	**28 to 53 m**
0.4 %	24.5 m	45m	**19 m**	**19 to 45 m**
0.5 %	18.5 m	40m	**13 m**	**13 to 40 m**
0.6 %	14 m	35m	**1 m**	**1 to 35 m**
0.7 %	11.5 m	31m	**0 m**	**0 to 31 m**
0.8 %	9.5 m	28m	**0 m**	**0 to 28 m**
0.9 %	7.5 m	26m	**0 m**	**0 to 26 m**

[3] Page numbers refer to Second Draft amended

Consequently, the recommended distances for whole plant use in table 5 on page 33 were changed accordingly. Due to the decision of the TWG to round the recommended distances to 5 m the lower range of distances recommended in the BPD will be 0 in the cases when no isolation distance is necessary according to GM calculator and in the case, when 1 m is recommended. ECoB will also amend table and add an explanatory text on included proposal on page 47 (appendix).

Finally the TWG reconsidered the recommendation given in Table 4 (grain maize) for 0.1% admixture level. The available data was discussed and the distance 105 to 250-500 m will be recommended. ECoB will add a footnote explaining the origin of the upper range of the recommendation.

2. Next steps: publication and dissemination of the Best Practice Document.

The Commission informed TWG Members of the political context in which the publication and dissemination of the BPD may take place (i.e. the development by the Commission of an approach which combines a science based Union authorisation system with the freedom for Member States to decide whether or not they wish to cultivate GM crops in their territory).

The Commission indicated 2 possible ways to publish the BPD which my sound coherent within the explained context:

- A Commission Staff Working Document, which would not need to be consulted with other services and will be just published on the website of AGRI.
- A Reference Report published by the JRC.

NL led a request for stronger endorsement by the Commission to the BPD. NL requested the BPD to be published as Commission Report (to the Council and EP) understanding that other formats would undermine the results and achievements of the whole consensus exercise. NL stated that the Commission initiative to extend the Member States possibilities to decide on cultivation of GMOs on their territories was not contradictory to the idea of publishing the BPD as Commission Report. NL stressed that the position expressed by his country in some of the measures would have been less consensus-seeking had they known initially that the document was to be published solely as a JRC (scientific) Report. After a tour de table, AT, CZ, DE, FR, IT, LU, NL, SI and UK supported NL request. DK and IE did not express preferences. No TWG members expressed a negative opinion.

Some members also pointed out of the need for all MS (cultivating or not GMOs) to have a Commission-endorsed guideline to be used once cultivation is decided, a guideline that was developed in a consensus building process by MS experts.

In summary, the large majority of TWG Members found no contradiction between publishing the document as a Commission document and the approach towards GMO cultivation outlined by President Barroso, and wanted to have a document with Commission endorsement.

The Commission informed TWG Members that the publication of the BPD as Commission Report entails official translation and publication in the Official Journal.

The Commission Report would be made from a summary of the actual BPD (10-15 pages). The BPD can be attached as annex (neither translated nor published in the OJ).

Commission will internally discuss the NL request and will provide feedback to the TWG answered as soon as possible.

In the meanwhile the following short-term calendar was agreed:

May 2010	ECoB prepares executive summary (to be sent to TWG by 4 June)
	Comments on summary by 11 June
June 2010	Revision of final version of BPD document, proofreading
July 2010	Final Draft Best Practice Document sent to DG AGRI
	Preparation for publication

3. Next activity of the TWG Maize.

According to the opinions of the TWG maize experts expressed during the previous meeting which was held in December 2009, the ECoB secretariat developed a proposal for extending the work of the TWG maize to elaborate "guidelines on monitoring of the efficiency of the coexistence measures in maize", which was circulated before the meeting (see Attachment 2).

TWG Members accepted the proposed document as outline for the next activity of the TWG Maize. Some TWG members have already indicated that they will be able to provide background information for the discussion. The indicative work plan proposed in the document was accepted (see Attachment 2).

Member States will be informed about the extension of the TWG Maize working program by an official letter.

4. Scientific presentation – Decision-aid tools for the management of coexistence developed by IRTA, Spain (J. Messeguer).

The GIMI tool developed by IRTA may be useful to plan landscape use to prevent undesirable GM content in non-GM harvests as well as to identify the fields, where GM content may exceed an allowed level. Demonstration of the software was performed during the meeting, showing the influence of change of parameters on GM content in non-GM fields and the simplicity of use of the GIMI tool.

Sampling methods for maize field monitoring (by PCR) were presented and discussed. The standard sampling method used by IRTA is costly and labour intensive. The contour method, which requires taking only 8 samples and only one analysis, was considered the best among three simplified sampling methods. With this method it is possible to determine if the GM content is below 0.9%. For values close to the 0.9% target, the uncertainty interval exists, related to the variability among cobs, the limitations of PCR technique and other factors like field irregularities and factors affecting plant growth.

The possible use of decision–aid tools and the simplified sampling methods may be considered useful to facilitate the monitoring of effectiveness of coexistence measures.

Attachment 1

European Coexistence Bureau (ECoB)
Technical Working Group for Maize (TWG-Maize)
Third Plenary meeting

3 & 4 May 2010

European Commission (EC), Joint Research Centre (JRC)
Institute for Prospective Technological Studies (IPTS)
Edificio Expo, 2nd Floor, Room 116, calle Inca Garcilaso 3, 41092 Seville, Spain

Organisers: Emilio Rodríguez-Cerezo, Marta Czarnak-Klos

DRAFT AGENDA

Monday 3 May 2010

14:30 – 15:00	Welcome, meeting overview (accept agenda, logistics)
15:00 – 16:30	Discussion on TWG comments and requests for changes (presentation by BPD author, discussion)
16:30 – 17:00	*Coffee*
17:00 – 18:00	TWG Maize – next steps (presentations by DG AGRI and JRC IPTS)
21:00	Working dinner

Tuesday 4 May 2010

09:30 – 11:00	Guidelines document on monitoring efficiency of maize coexistence measures (presentation by BPD author, discussion)
11:00 – 11:30	*Coffee*
11:30 – 12:30	Continuation of the discussion, conclusions, actions to be taken, timetable
12:30 – 13:30	Decision-aid tools for the management of coexistence developed by IRTA, Spain (J. Messeguer) - scientific presentation
13:30	End of meeting

Attachment 2

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Institute for Prospective Technological Studies (Seville)
Agriculture and Life Sciences in the Economy

Seville, 28 April 2010

JRC.J.05.ERC/mck/v.2.0

Guidelines Document on monitoring efficiency of coexistence measures in maize

1. Background

The ability of the food/feed industry to offer consumer choice between GM and non-GM products, as required by EU legislation, goes hand in hand with the ability of the agricultural sector to maintain different production systems separate. Agriculture is however an open system, and technical and organisational measures during sowing, cultivation, harvesting, on-farm storage and transport are needed to ensure that adventitious presence of GM crops in non-GM harvests stays below the binding EU thresholds. Establishing of such coexistence measures is the competence of individual Member States, which may take necessary steps to make coexistence possible. The majority of Member States have already developed specific legislation for coexistence or have developed technical segregation measures in the form of good agricultural practices.

The European Commission is also involved in work related to coexistence, as requested by the Council. The European Coexistence Bureau (ECoB), set up by DG AGRI and the JRC, is currently finalising a Best Practice Document for coexistence of GM maize with conventional and organic maize. The document contains set of consensually agreed best agricultural management practices that will ensure coexistence in maize crop production. The document was developed by the ECoB's Technical Working Group on maize coexistence, formed by MS experts.

One question arising during the development of the document on maize coexistence was the issue of how to evaluate the efficiency of coexistence practices in achieving the desired objective. Currently, GM maize is grown in a few MS only, and experiences on monitoring/surveillance efficiency of coexistence strategies are few. Portugal has developed a regular plan of surveillance of coexistence that has resulted in four annual reports released so far (for the years 2006-2009[4]). Some scattered activities were also

[4] Coexistence between genetically modified, conventional and organic crops. (Coordinators: de Carvalho P.C. and Algarroba F.):
Status Report for 2006, Lisboa.
Status Report for 2007, Lisboa.
Status Report for 2008, Lisboa.

done in other MS. France performed in 2007 controls of efficiency of coexistence measures, despite these were applied by farmers on a voluntary basis[5]. The Netherlands[6] and Slovakia[7] have published some scientific data supporting the effectiveness of their national coexistence measures.

The current situation is one of monitoring activities differing widely in terms of frequency and scope. Also, the lack of commonly agreed methodologies and indicators which could define a coexistence strategy as "efficient" does not allow comparisons or development of general conclusions concerning the efficiency of coexistence measures.

This situation was acknowledged in the "Report on the coexistence of genetically modified crops with conventional and organic farming" prepared by the European Commission in 2009[8] , stating that further experience needs to be gained in this field. The report commits the European Coexistence Bureau to develop guidelines in the area of monitoring coexistence efficiency.

The subject was discussed with the EcoB's TWG maize in their last plenary meeting, and the group supported the idea. Therefore, DG AGRI and JRC are pursuing the work plan of TWG for maize and invite the experts to develop guidelines for monitoring efficiency of coexistence measures in maize cultivation.

2. Objective of the activity

The main objective is to develop a set of guidelines for monitoring efficiency of existing coexistence measures in maize crop production. The guidelines shall include consensually- agreed (i) indicators of effectiveness of coexistence measures, (ii) methodologies for monitoring effectiveness, as well as (iii) communication and reporting of the results of such monitoring. The guidelines should provide for cost-effective monitoring activities that are feasible to be applied by different Member States.

3. Scope

The guidelines for monitoring efficiency of coexistence in maize production should address at least the following issues (indicative list):

Status Report for 2009, Lisboa.

[5] Culture du Maïs génétiquement modifié en 2007. Bilan des enquêtes conduites par les Directions régionales de l'agriculture et de la forêt –Service régional de la protection des végétaux des régions Aquitaine et Midi -Pyrénées.

[6] Van de Wiel, C.C.M., O. Dolstra, R.M.W. Groeneveld, E.J. Kok, I.M.J. Scholtens, J.T.N.M. Thissen, L.A.P. Lotz & M.J.M. Smulders (2008). Toetsing van afspraken over coëxistentie van genetisch gemodificeerde (GG) en niet-GG maïsproductie in Nederland : resultaten van metingen aan de mate van vermenging door uitkruising onder praktijkomstandigheden in 2006 en 2007. Plant Research International Rapport 184, Wageningen.

[7] Horvath L., Hudecova Z.: (2007) Control of coexistence between GM and non-GM agricultural crops in Slovakia. In: Stein, A. J. and Rodriguez-Cerezo, E. (eds.) Proceedings of the third international conference on coexistence between genetically modified (GM) and non-GM based agricultural supply chains. Institute for Prospective Technological Studies, Joint Research Centre, European Commission, Seville, Spain.

Horvath L., Feketova M.: (2008) Measurement of the mean level of GM maize contamination in Non-GM field in terms of coexistence between GM and Non-GM crops, 1st Global Conference on GMO, Como (Italy), 24-27June 2008.

[8] DG AGRI, 2009. Report from the Commission to the Council and the European Parliament on the coexistence of genetically modified crops with conventional and organic farming. COM (2009) 153 final.

- indicators for efficiency of coexistence measures,
- appropriate level of monitoring (be it individual fields, farms, etc),
- coverage (for example percentage of concerned market players which should be monitored in each year)
- monitoring strategy – random choice of sampling points vs. stratified method (i.e. probes taken from areas likely causing problems)
- possible need for development of monitoring-aid tools (i.e. tools which would allow identifying the problematic areas or fields)
- sampling and testing issues:
    - minimal number of samples taken,
    - methods of sampling,
    - methods used for sample analysis and harmonised expression of results,
- analysis of results and possible follow-up
- formatting and communication of monitoring results and data exchange between countries

The guidelines shall not address the issue of legal compliance with the binding labelling thresholds and should be restricted to the best methods of assessing the efficiency of applied coexistence measures in restricting the adventitious GM presence in non-GM harvest to the desired level.

The guidelines will not address issues of compensation or damage caused by an adventitious presence of GM material, be it result of correct application of coexistence measures or the violation of the coexistence rules.

Monitoring the efficiency of coexistence strategies should not be mistaken with "post-marketing environmental monitoring" (PMEM) of GM crops which has different objectives.

4. Working Procedures

The guidelines will be developed by the existing Technical Working Group for Maize which consists of ECoB secretariat and representatives of Member States. The working plan of this group will be extended for this purpose.

The work procedures of ECoB (already developed) will apply to this activity. The EcoB will organise and chair up to three plenary meetings over the course of work period depending on complexity of the tasks involved as well as possible field visits.

5. Tentative work program

The work on the guidelines document for monitoring of efficiency of coexistence measures (maize) will start after the third plenary meeting of TWG Maize, planned for early May 2010.

The indicative work plan is drafted below:

deadline	action	responsible service
3-4 May 2010	Information for TWG Maize Members on extension of TWG activities	AGRI
	Approval of the work procedures and tentative work plan	JRC/TWG
	Request for first inputs from TWG Members	JRC
May-June 2010	First reflection about appropriate indicators, data requirements, and data availability. TWG experts asked to provide respective inputs and report about experience with monitoring methods.	JRC
July 2010	Background document preparation	JRC
Mid September 2010	Sending of Background document and invitation package to TWG	JRC
October/November 2010	Meeting in Seville: discussion of scope of guidelines document, background document content preliminary identification of knowledge gaps and possible solutions; Scientific presentation(s) and possible field visit	JRC (AGRI's participation in the meeting)
November 2010-January 2011	First draft of "guidelines for the monitoring of efficiency in maize coexistence"	JRC
February 2011	Consultations of the First Draft (TWG and stakeholders)	JRC/AGRI
March –April 2011	Redrafting of document, implementation of comments – Second Draft	JRC
May 2011	Consultations of Second Draft (TWG and Stakeholders)	JRC/AGRI
End June 2011	Plenary TWG meeting (discussion of stakeholders' consultations and final decisions on remaining issues)	JRC (AGRI's participation in the meeting)
July 2011	Redrafting of document	JRC
September – October 2011	Proofreading, formatting, quality check etc.	JRC
End October 2011	Final Draft to be sent to AGRI	JRC