ANNEX 1

QUESTIONNAIRE about the socio-economic implications of the placing on the market of GMOs for cultivation

A – Introduction note

Article 31.7 (d) of Directive 2001/18/EC^[1] provides that the Commission should send to the European Parliament and the Council a specific report on the operation of the Directive including inter alia an assessment of the socio-economic implications of deliberate releases and placing on the market of GMOs. These implications are defined in Recital (62) of the Directive as the socio-economic advantages and disadvantages of each category of GMOs authorised for placing on the market, which take due account of the interest of farmers and consumers. In its 2004 report, the Commission noted that there was no sufficient experience to make such an assessment (the Directive became fully applicable as of 17 October 2002 and several Member States had not transposed yet so only little experience of its implementation was available).

Moreover Regulation (EC) No 1829/2003, its articles 7 and 19, asks the Commission to submit a draft of the authorisation decision taking into account, together with the opinion of the Authority in charge of the scientific assessment, "other legitimate factors relevant to the matter under consideration".

At its meeting on 4 December 2008, the Environment Council adopted conclusions on GMOs mentioning among other things the appraisal of socio-economic benefits and risks of placing GMOs on the European market for cultivation. In particular the Council conclusions indicated the following:

"The Council:

7. Points out that under Regulation 1829/2003 it is possible, under certain conditions and as part of a case by case examination, for legitimate factors specific to the GMO assessed to be taken into account in the risk management process which follows the risk assessment. The risk assessment takes account of the environment and human and animal health. Points out that under Directive 2001/18/EC, the Commission is to submit a specific report on the implementation of the Directive, including an assessment, inter alia, of socio-economic implications of deliberate releases and placing on the market of GMO.

Invites the Member States to collect and exchange relevant information on socio-economic implications of the placing on the market of GMOs including socio-economic benefits and risks and agronomic sustainability, by January 2010. INVITES the Commission to submit to the European Parliament and to the Council the report based information provided by the Member States by June 2010 for due consideration and further discussions.

This possible consideration of socio-economic factors in the authorisation of GMOs for cultivation has also been raised by several Member States in the Environment and Agriculture Councils of the last months^[2].

In order to respond to the invitation of the Council conclusions of 4 December 2008 and to the requirements of the legislation, the Commission invites Member States to submit all information they would consider relevant by January 2010 at the very latest.

In order to help Member States in structuring their responses, the Commission drafted a non exhaustive list of areas and stakeholders which could be concerned. In addition, for each of these categories, we have introduced in the annex a list of leading questions which could be used where considered appropriate.

When preparing their contribution Member States are invited to report *ex post* on the socio-economic impact of GMOs that have been approved in the EU and cultivated in their territory. Additionally, Member States are also invited to assess *ex ante* the possible implications of GMOs of currently pending approvals as well as those which are under development according to the best of their knowledge. One possible source of information in that respect is that recent report produced by the Joint Research Centre titled "The global pipeline of new GM crops" (available at http://ipts.jrc.ec.europa.eu.

The submissions must be as explicit and informative as possible and supported by evidence and data. When feasible, the socio-economic analysis – be it *ex post* or *ex ante* – should be quantified. In case documents are attached, they should be accompanied by a summary of the relevant part and a specification about the argument or topic that is being defended.

Where stakeholders are consulted at national level (e.g. farmers and consumers), we would appreciate it if their responses would be incorporated in your submission in an aggregated fashion. The list of stakeholders consulted, as well as any other pertinent information, may indeed be attached to the questionnaire.

Please note that the contributions must only deal with "socio-economic implications of the placing on the market of GMOs including socio-economic benefits and risks and agronomic sustainability" for each category of GMOs. These contributions should cover cultivation of GMOs and placing on the market of GM seeds.

If you choose to fill in the annexed questionnaire, please consider that answers should be broken down by the purpose of the genetic modification (herbicide tolerant, insect resistance, etc) if this affects the content of the responses.

DEADLINE FOR CONTRIBUTIONS: January 2010

B - Contact Details

8th January 2010

Member State: European Mobile Seed Association (EMSA)

EMSA is an international organisation representing Mobile Seed Cleaning Processors based in EU member states. Many of our members are farmers as well as seed processors and so some of our comments reflect the opinions of farmers growing non-GM crops as well.

Name of ministry/ies contact Person/s: Mr Nigel Day (President of EMSA)

Contact Address: Riverside, Wiston Road, Nayland, Suffolk, CO6 4LT

United Kingdom.

E-mail Address nigel@angliagrainservices.co.uk

EUROPEAN MOBILE SEED ASSOCIATION

The socio-economic aspects of genetically modified crop cultivation and placing on the market of GM seeds.

EMSA are an association of agricultural contractors involved in the processing of farm saved seed.

Farm saved seed is used widely and traditionally throughout the EU and is an important part of the EU agricultural market. While figures for the whole market are difficult to obtain, it is an established fact that in North West Europe, (UK, France , Germany, Belgium), the practice of using farm saved seed represents around 50% of seed planting for combinable crops.

EMSA feels that it is important to explain the significant role of this practice in EU agriculture. The point of view of the users of farm saved seed , (some 70% of combinable crop farmers in the UK for example), can be overlooked and we feel many growers do not realise the threat of GM crops to this traditional practice.

EMSA are grateful for the opportunity to contribute to the debate on the introduction of GM crops into the EU and believe that it is important that the possible socioeconomic implications must be assessed:

Any new agronomic system will have an economic impact, (and thus a social impact), on the existing system with which it competes and hopes to replace.

EMSA feel there are particular socio-economic aspects that must be assessed:

C – Areas and stakeholders on which Member States are invited to comment

<u>1 - Economic and social implications: influence on concerned economic operators</u>

Upstream

1.1. Farmers

EMSA are making their comments here as processors of non-GM farm saved seed and farmers using non-GM farm saved seed.

For each question, answers can be broken down by the range of stakeholders:

- farmers cultivating GM crop;
- and/or conventional crops;
- and/or organic crops;
- beekeepers;
- seed producers producing GM seeds;
- seed producers producing conventional seeds;
- seed producers producing organic seeds;

...

1. COEXISTENCE: The competitive threat of GM to existing agricultural regimes is far more acute because of doubts about the ability of any devised regime to ensure effective coexistence between GM crops and non GM crops: Particularly with the case of open flowering cross pollinating species it is easy to see a situation arise whereby it would become impossible to stop the contamination of non GM bearing land/seed/crops with GM plant material. Once this has happened the confidence of conventional and organic growers to maintain their purity and thus raison d'être will disappear. Agriculture will become GM by default and this will be irreversible.

Such an inability to maintain coexistence must be very sensitive in European agriculture where cropping areas are small and land use patterns complicated.

- 2. MARKET CHOICE: Once agriculture becomes GM dominated a number of other factors will face the market:
- i. It will have no choice but to follow the prevailing farming practices.
- ii. It will be offered less choice of species and variety to grow.
- iii. GM seed will come with strong contract control over practice and sale.
- iv. The evidence in states where GM has become the norm shows us that the farmer will be dealing with fewer and fewer suppliers in a longer and longer supply-chain. The regional, plant and economic diversity will be severely restricted.

It is hard to see how the farming community will have any degree of partnership with a patent owning multinational corporate entity that may well be based in another state or even another continent.

3. FARM SAVED SEED: GM crops conflict with the established right of European farmers to save and use their own seed.

The right of a farmer to use his own seed has been his since the dawn of farming.

In the UK and France some 50% of combinable crops are farm saved.

Farmers save and use their own seed to:

- i). Save money and improve their cash flow.
- ii). To secure a supply of seed.
- iii). To secure a supply of traceable seed.
- iv). In many cases, (with the growth of professional on farm seed contractors), to improve the quality of their seed.
- v). To maintain biodiversity; To maintain regional and local crop diversity.
- vi). To improve the timeliness of seed delivery.
- vii). To maintain his independence and flexibility.

Farm saved seed is thus an important tool for the farming community: It is an instrument that can used to balance the power and control of corporations and help maintain independence and tradition.

4. PLANT RESOURCES: The Patent intellectual property laws will necessarily mean that conventional plant breeders will have less and less resources to work with as plant materials are patented. Indeed, even the GM breeders will limit one another's source material.

Local and regional seed breeders and multipliers will find it hard to compete with multinational corporations.

Local breeding, laboratory skills and traditional agricultural industries, (and their suppliers) will be lost.

Thus plant diversity, corporate diversity, regionalism and local food security are all threatened.

5. CONSUMER CHOICE AND FOOD SECURITY: The introduction of GM seeds will limit the freedom of choice for consumers. It may be very difficult to maintain supplies of GM and NON GM seeds and thus food-stocks to enable the freedom of choice.

This issue becomes even more critical if there is any doubt about the security provided by any coexistence rules.

If GM seeds becomes the dominant seed-stock then the patent rules will mean an ever increasing control of plant materials and then food-stocks by a few corporate bodies. For consumers this will mean a narrowing of choice of food products.

At the 2009 World Seed Conference in Rome it was stated that already 60% of the worlds food comes from just four crops – maize, potato, wheat and rice. As plant material is collected and patented less and less will be available to enrich our world-wide consumer choice.

In areas of the world where GM crops have become the norm monoculture and limited biodiversity have arrived hand in hand with it.

Consumers food security will also be in the hands of perhaps remote corporate bodies who may not have the desire or ability to react to regional problems.

Local innovation and research will be stifled by multinational market power.

For local communities dependent on patented seeds and foods there may well be problems of administering food safety checks and controls. Who will have the traditions

and skills to locally insist on the food safety of remotely developed innovative and patented seeds?

The technological and legal control given by patented plant material will not be easily policed. Public administration will be weighed down by protective health and safety legislation and insurance back up demands.

6. FAIR ECONOMIC MARKET:

As a single market Europe must decide together on the road forward.

There will be no equality or fairness in the market if different areas are allowed to adopt different rules. To maintain fairness and equality of choice the rules must be practical and fully able to be adopted.

The internal agricultural market is distorted by many instances of failure to have realistic rules that are comprehensively put into practice.

For example British and French farmers have complied with EC rulings covering the use of farm saved seed and they have to contribute a royalty payment when they use their own farm saved seed. This puts them at a disadvantage with the rest of the community whose farmers do not pay royalties on farm saved seed.

British and French farmers are unhappy to be part of the few who are paying but European breeders are unhappy because they feel they are not rewarded for their work. There may be pressure to increase the pressure on farmers to reward the breeders more but ironically British and French farmers, who already contribute significant amounts of money already feel that it is them and only them who will be penalised by any tightening of the restrictions on farm saved seed.

7. BIODIVERSITY: The evidence of shrinking biodiversity and the growth of industrial farming that comes with GM cropping is to be seen in the continents of North and South America.

ANNEX

1.2. Seed industry

For each question, answers can be broken down by the range of relevant stakeholders, including:

- plant breeders;
- multiplying companies;
- seed producing farmers;
- seed distributors;

. . .

Downstream

Consumers:

Cooperatives and grain handling companies;

Food and feed industry;

Transport companies;

Insurance companies;

Laboratories:

Innovation and research;

Public administration.

Economic context

Internal market:

Specific regions and sectors.

1. COEXISTENCE: The competitive threat of GM to existing agricultural regimes is far more acute because of doubts about the ability of any devised regime to ensure coexistence between GM crops and non GM crops: Particularly with the case of open flowering cross pollinating species it is easy to see a situation arise whereby it would become impossible to stop the contamination of non GM bearing land/seed/crops with GM plant material. Once this has happened the confidence of conventional and organic growers to maintain their purity and thus raison d'être will disappear. Agriculture will become GM by default and this will be irreversible.

Such an inability to maintain coexistence must be very sensitive in European agriculture where cropping areas are small and land use patterns complicated.

- 2. MARKET CHOICE: Once agriculture becomes GM dominated a number of other factors will face the market:
- i. It will have no choice but to follow the prevailing farming practices.
- ii. It will be offered less choice of species and variety to grow.

iii. GM seed will come with strong contract control over practice and sale.

iv. The evidence in states where GM has become the norm shows us that the farmer will be dealing with fewer and fewer suppliers in a longer and longer supply -chain. The regional, plant and economic diversity will be severely restricted.

It is hard to see how the farming community will have any degree of partnership with a patent owning multinational corporate entity that may well be based in another state or even another continent.

3. FARM SAVED SEED: GM crops conflict with the established right of European farmers to save and use their own seed.

The right of a farmer to use his own seed has been his since the dawn of farming.

In the UK and France some 50% of combinable crops are farm -saved. Farmers save and use their own seed to:

- i). Save money and improve their cash flow.
- ii). To secure a supply of seed.
- iii). To secure a supply of traceable seed.
- iv). In many cases, (with the growth of professional on farm seed contractors), to improve the quality of their seed.
- v). To maintain biodiversity; To maintain regional and local crop diversity.
- vi). To improve the timeliness of seed delivery.
- vii). To maintain his independence and flexibility.

Farm saved seed is thus an important tool for the farming community: It is an instrument that can used to balance the power and control of corporations and help maintain independence and tradition.

4. PLANT RESOURCES: The Patent intellectual property laws will necessarily mean that conventional plant breeders will have less and less resources to work with as plant materials are patented. Indeed, even the GM breeders will limit one another's source material.

Local and regional seed breeders and multipliers will find it hard to compete with multinational corporations.

Local breeding, laboratory skills and traditional agricultural industries, (and their suppliers) will be lost.

Thus plant diversity, corporate diversity, regionalism and local food security are all threatened.

5. CONSUMER CHOICE AND FOOD SECURITY: The introduction of GM seeds will limit the freedom of choice for consumers. It may be very difficult to maintain supplies of GM and NON GM seeds and thus food-stocks to enable the freedom of choice.

This issue becomes even more critical if there is any doubt about the security provided by any coexistence rules.

If GM seeds becomes the dominant seed-stock then the patent rules will mean an ever increasing control of plant materials and then food-stocks by a few corporate bodies. For consumers this will mean a narrowing of choice of food products.

At the 2009 World Seed Conference in Rome it was stated that already 60% of the worlds food comes from just four crops – maize, potato, wheat and rice. As plant material is collected and patented less and less will be available to enrich our world-wide consumer choice.

In areas of the world where GM crops have become the norm monoculture and limited biodiversity have arrived hand in hand with it.

Consumers food security will also be in the hands of perhaps remote corporate bodies who may not have the desire or ability to react to regional problems.

Local innovation and research will be stifled by multinational market power.

For local communities dependent on patented seeds and foods there may well be problems of administering food safety checks and controls. Who will have the traditions and skills to locally insist on the food safety of remotely developed innovative and patented seeds?

The technological and legal control given by patented plant material will not be easily policed. Public administration will be weighed down by protective health and safety legislation and insurance back up demands.

6. FAIR ECONOMIC MARKET:

As a single market Europe must decide together on the road forward.

There will be no equality or fairness in the market if different areas are allowed to adopt different rules. To maintain fairness and equality of choice the rules must be practical and fully able to be adopted.

The internal agricultural market is distorted by many instances of failure to have realistic rules that are comprehensively put into practice.

For example British and French farmers have complied with EC rulings covering the use of farm saved seed and they have to contribute a royalty payment when they use their own farm saved seed. This puts them at a disadvantage with the rest of the community whose farmers do not pay royalties on farm saved seed.

British and French farmers are unhappy to be the only ones paying but European breeders are unhappy because they feel they are not rewarded for their work. There may be pressure to increase the pressure on farmers to reward the breeders more but ironically British and French farmers, who already contribute significant amounts of money already feel that it is them and only them who will be penalised by any tightening of the restrictions on farm saved seed.

7. BIODIVERSITY: The evidence of shrinking biodiversity and the growth of industrial farming that comes with GM cropping is to be seen in the continents of North and South America.

ANNEX

2 - Agronomic sustainability

Biodiversity, flora, fauna and landscapes Renewable or non renewable resources Climate Transport / use of energy

The cultivation of GM crops in the EU threatens biodiversity in a number of ways. The use of herbicide resistance genes in GM crop cultivation means initially that non-selective herbicides will result in crops which are almost weed free. This removes the flora for a range of invertebrates to feed on and in turn reduces wild bird numbers that feed on those invertebrates. GM crops threaten smaller Organic farms due to potential GM contamination. Small Organic farms tend to grow a range of older varieties of crops thereby maintaining biodiversity of crop varieties. In addition Small Organic farms tend to have more in the way of invertebrates, habitats and feeding areas for wild birds. Smaller Organic farms tend to maintain a better landscape for people to enjoy in the countryside. GM crops are likely to be mainly taken up by bigger agri-business type farms who tend to be less likely to maintain the countryside in a way which the general public find acceptable and provide less rural employment per hectare of land use.

GM crops have the potential to destroy the farm-saved seed industry in the EU due to the control of the seed industry and seed supply possible under international patent law. The farm-saved seed industry has a better carbon footprint that the GM certified seed industry. This is because most farm-saved seed is processed on the farm and so large quantities of grain can be kept off the road. On average there is less fossil fuel used per tonne of seed (and therefore less Carbon Dioxide produced per tonne of seed) produced using farm-saved seed. With certified GM seed the seed has to be grown on a farm, moved to a central seed processing facility and then moved out to farmers who wish to plant the seed resulting in more "seed miles" per tonne. This all adds to the problem of climate change but also to congestion on the roads as extra lorries are required to move all this seed about. Long term it must make more sense to keep seed production based on the farm where it is intended to be planted again, after all before the advent of cheap fossil fuel this was how it used to be done very successfully!

3 - Other Implications