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Report unapproved GMOs

ECONOMIC IMPACT OF UNAPPROVED GMOS ON EU FEED IMPORTS AND LIVESTOCK PRODUCTION

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1. Background{ TC "Background" \f C \l "1" }

New GMOs are being developed in feed exporting countries at a high rate. The regulatory procedures for the approval of GMOs in the EU differ significantly from those of exporting third countries, including differences in the time for treating authorisation dossiers. The time it takes for GMO authorisations to be completed in the EU ranges from 2.5 to 10 years, as compared with a US average of 15 months. This discrepancy can lead to "asynchronous authorisations", where a GMO is fully approved for commercial use in food and feed in one country, but not in others.

Furthermore, the approval of new GMOs that have received clearance from EFSA can not be guaranteed in the EU, given the persistent disagreement among Member States in the respective Regulatory Committees and in the Council. So far, not a single GMO has been approved by qualified majority. Authorisations have nevertheless been granted by the Commission in line with the comitology procedure, as there were no qualified majorities against the proposals. However, slight changes in the voting behaviour of Member States could result in a rejection of authorisation proposals in the future.

Until now, trade disruptions (affecting maize products and rice imports) have mainly concerned GMOs that were also not authorised in the exporting countries, and which had entered the supply chain in these countries accidentally. However, with the commercial cultivation of the DAS-59122 maize ("Herculex") in the US since 2006, there is now a GM maize that is authorised and normally cultivated in a major exporting country, while it is not (yet) authorised in the EU.

The presence of an EU-non approved GMO has the same implications for imports, irrespective of whether this GMO is approved or not in the exporting country. EU legislation does not provide for any tolerance threshold for the accidental presence of unapproved GMOs that have received approval in other countries.

With the more widespread cultivation of GMOs that are approved in the exporting countries but not (yet) in the EU ("EU-non approved GMOs"), potential trade disruptions could become more severe, more frequent, and affect more products.

The likelihood that EU-non approved GMOs may turn up in consignments planned for export to the EU, depends on the rate at which new GMOs are developed and adopted in the exporting countries, and on the possibilities to segregate EU-approved from EU-non approved varieties under the local and regulatory conditions in the production regions.

It also depends on the way the authorisations are handled in the exporting countries, given that the authorisation of GMOs that are not also authorised at the same time in the EU (and other major importers), may impact on their export markets.

Some countries appear to make the granting of authorisation for new GMOs dependent on the impact that this could have on their exports (particularly Argentina and Brazil, less so the USA). However, even if they do so, unwanted mixing of GMOs resulting from illegal or experimental cultivation in some of these countries, in combination with a lack of co-existence policies, might undermine the effectiveness of such policies.

The economic impact of the presence of EU-non approved GMOs in consignments destined for the EU market also depends on the trade response decided by the EU, which can be graduated. Measures used so far involved requirements for an analytical report with test results certifying the absence of unapproved GMOs, and double tests at the points of export and import. The possible measures include also temporary import stops.

These measures are associated with considerable direct costs for the traders, including testing costs, costs for storage at harbours before clearance for import, and costs for the destruction or re-export of shipments in case of positive tests. According to the feed trade associations, it is in general not possible to obtain insurance for these costs.

As a result, even in the absence of an import ban, imports may slow down considerably or come to a halt, as traders would be unwilling to assume the risk of having traces of EU non-authorised GMOs detected in their shipments.

There are potentially import market impacts in the EU linked to possible shortages in supply and the need for switching to alternative products of inferior quality and/or higher prices. The EU imports large amounts of feed from third countries in which GM crops are cultivated.

The following analysis concentrates on the question how severely animal feed imports could be affected by the presence of EU-non approved GMOs in maize and soybean products, and on the potential consequences this would have for EU meat production, consumption and trade.

2. Maize products{ TC "**Maize products**" \f C \l "1" }

2.1. Maize grains{ TC "**Maize grains**" \f C \l "2" }

Maize imports into EU-27 range between 2.5 and 4.0 million t per year, corresponding to 4-7% of EU-27 production (54-62 million t). At the turn of the century, these imports came mainly from Argentina and Brazil, with only low volumes from the USA. In the last two years, imports from Argentina and Brazil declined significantly. In 2006, the principal supplier to the EU was Serbia (1.2 million t) before Argentina (0.8 million t), Brazil (0.5 million t) and the Ukraine (0.35 million t). This means that EU imports from potential GM origins, i.e. Argentina, Brazil and USA, accounted for 45% (or 1.3 million t) of total EU imports.

IMPORTATIONS MAIS extra UE-27 (000 t)

	1999	2000	2001	2002	2003	2004	2005	2006e
TOTAL	2.435	2.868	3.257	2.333	4.055	4.238	2.571	2.957
ARG	2.032	2.494	1.410	1.495	2.056	1.657	1.524	821
BRA	0	0	1.324	440	1.379	1.877	117	484
USA	185	271	113	81	99	105	31	25
autres	218	103	409	316	520	599	899	1.626
	dont	*Serbie*			133	12	319	1215
		Ukraine			134	425	340	350

2.2. Corn Gluten Feed (CGF){ TC "**Corn Gluten Feed (CGF)**" \f C \l "2" }

Imports into EU-27 of corn gluten feed amounted to almost 5 million t at the beginning of the century, but they have been reduced since then to approximately 2.5 million t in 2006, which is less than 5% of EU domestic maize production. They come almost exclusively from the USA.

IMPORTATIONS CORNG extra UE-27 (000 t)

	1999	2000	2001	2002	2003	2004	2005	2006e
TOTAL	4.642	4.821	4.159	4.136	3.560	3.297	2.630	2.520
USA	4.583	4.767	4.054	4.108	3.531	3.268	2.591	2.490
autres	59	54	105	27	30	28	39	30

2.3. Distillers Dried Grain (DDG){ TC "Distillers Dried Grain (DDG)" \f C \l "2" }

US production of DDG's is rising due to the booming ethanol industry, and reached about 8.1 million t in 2005, as compared with 6.5 million t in 2004 and 5.1 million t in 2003. On the other hand, imports of DDG's to Europe decreased from a record 1.9 million t in 1996 to 625.000 t in 2006 (mainly from the USA).

IMPORTATIONS DDGs extra UE-27 (000 t)								
	1999	2000	2001	2002	2003	2004	2005	2006e
TOTAL	669	713	684	825	773	669	756	624
USA	631	665	660	766	734	650	740	608
autres	38	48	24	58	39	19	16	17

Due to the presence of DAS-59122, imports of CGF and DDG from the USA have now decreased to 25-30% of 2005 levels and are likely to remain low. An application for authorising DAS-59122 in the EU was filed in January 2005. An EFSA opinion was published 3 April 2007 (more than two years after application). The Standing Committee on the Food Chain & Animal Health will discuss the application on 8 June 2007.

However, EU authorisation of DAS-59122 is unlikely to ensure that imports of CGF and DDG will return to full levels, as two new GM maize varieties are likely to be cultivated in the USA in 2007, which are not yet approved in the EU.

2.4. Conclusion for maize products{ TC "Conclusions for maize products" \f C \l "2" }

Maize grain imports that are potentially affected by the presence of EU-non approved GMOs could be replaced by maize from the EU-27, by other domestic cereals, or by imports from other trade partners. Likewise, CGF and DDG imports can be replaced by other non-grain feed ingredients or by-products. Even when considering the combined imports of maize grains, CGF and DDG, a ban is unlikely to have a strong economic impact on future feed imports and livestock production at the overall EU level.

However, it should be noted that this assessment does not consider the local impact on certain Member States or regions. CGF is particularly imported by some Member States with direct sea access (ES, UK, PT, NL, IR). To replace this product by other sources would be associated with increased transportation costs. For instance, the costs of transporting maize from Hungary to Spain have been estimated by industry sources at 60 € per tonne. There could thus be substantial economic consequences for certain EU Member States.

3. Soybean products{ TC "**Soybean products**" \f C \l "1" }

3.1. Trade in soybeans and soybean meal{ TC "**Soybean and soybean meal trade**" \f C \l "2" }

The volumes of EU imports of soybeans and soybean meal (expressed in soybean meal equivalent) have grown steadily since the late 1990s and have stabilised in recent years at around 34-35 million t, i.e. much more than EU's own production of oilcakes (around 12 million t). The principal suppliers to the EU are Argentina and Brazil. The share of the United States has declined, while that of Paraguay has increased.

IMPORTATIONS de fèves et de tourteau de soja extra UE-27 (mio t en tourteau équivalent)

	1999	2000	2001	2002	2003	2004	2005	2006e
TOTAL	28,0	27,5	33,2	34,6	34,9	32,7	33,7	34,0
ARG	9,0	8,2	8,9	11,0	11,1	11,1	12,0	14,4
BRA	12,2	12,7	17,2	16,8	17,7	17,2	17,4	15,4
USA	5,7	5,7	6,0	6,0	4,7	2,8	2,6	2,5
PARA	0,6	0,3	0,6	0,2	0,8	0,8	0,8	0,9
autres	0,6	0,6	0,6	0,6	0,7	0,8	0,9	0,8

3.2. Potential replacement of soybeans and soybean meal{ TC "**Potential replacement of soybeans and soybean meal**" \f C \l "2" }

Since the overall import volumes of soybeans and soybean meal are much higher than EU domestic production, they are crucial for the EU animal sector. Few alternatives exist to replace these protein crop imports. At the level of EU domestic production, it is probable that with the "bio-fuels" initiatives, the land sown to oilseeds will continue growing. However, the protein seed acreage decreased in recent years due to a loss in competitiveness, despite complementary aid. Substantial aid would be required to increase this acreage, but even then it would be impossible to meet the EU needs. In total, a possible increase in oilseed and protein seed acreage could replace at most 10-20 % of the EU imports of soybeans and soybean meal.

While a significant increase in imports of oilseed rape would not be very likely, a potential increase in sunflower meal imports could provide partial replacement.

3.3. Quantitative impact assessment of an EU ban on soybean imports due to the presence of unapproved GMOs{ TC "**Quantitative impact assessment of an EU ban on soybean imports due to the presence from unapproved GMOs**" \f C \l "2" }

The economic implications of an uptake of EU-non approved GM soybeans in exporting countries was studied in an economic modelling approach.

The first EU-non approved GM soybean that is likely to be cultivated in major feed exporting countries is "Roundup Ready 2" by Monsanto. It is supposed to replace the Roundup Ready soybean 40-3-2, which, in 2005, was planted on approximately 87% of US soybean area and 60% of the global soybean area. Roundup Ready 2 was submitted to FDA and USDA in the first half of 2006 and is likely to be approved within a few months from now. Cultivation in the USA may commence in 2008 or, more likely, in 2009.

An authorisation dossier for Roundup Ready 2 was submitted to EFSA in November 2006. The completeness check of the dossier has not yet been finalised. Further information from the

applicant may be requested by EFSA, which could delay the authorisation procedure. Overall, the authorisation procedure could take several years.

Since Roundup Ready 2 is not expected to be cultivated before 2008, any potential ban on soybean and soybean meal imports is assumed to take place during the period 2009-2010. After this period, the GM soybean is expected to be authorised in the EU, and imports will be unrestricted again.

Three different scenarios and their likelihood were considered:

The **minimal impact scenario** concerns a ban on US soybean/meal imports that would be fully substituted by imports from non-GMO exporting countries. Since US exports to the EU amounted to only 2.6 million t in 2005, a figure that is close to the "normal" year-to-year change in total EU imports, the approval of a new GM soybean in the USA is not likely to cause a major market disruption. The US quantity would have to be diverted to other destinations, and Brazil and Argentina could fill the gap if the elements mentioned in section 3.4 (notably increase in illegal plantings and growing Chinese demand for soybeans) do not materialize. The net effect on EU soybean/meal supply can therefore be considered to be zero. Consequently, no specific modelling analysis was carried out.

The **medium impact scenario** concerns a ban on US and Argentinean soybean/meal imports that would be partially compensated by increased imports from Brazil. It is reasonable to assume that Brazil could export to the EU an additional 7 million t of soybean meal (under the same caveats mentioned in section 3.4). This would leave an import deficit1 of 9.9 million t of soybean meal equivalent[1]. Taking into account an assumed increase in production and imports of rapeseed meal and sunflower meal, the net shortage of soybean meal equivalent would be reduced to 3.3 million t.

The **worst case scenario** concerns a ban on US, Argentinean and Brazilian soybean/meal imports, without any compensation from other exporting countries. This would leave an import deficit of 32.3 million t in soybean meal equivalent[2]. Taking into account an assumed increase in rapeseed meal and sunflower meal production and imports, the net shortage of soybean meal would be reduced to 25.7 million t.

It should be noted that the worst case scenario yields an impact that goes beyond the limits of the model used for the analysis. As a consequence, the price movements generated by the model may give a clear indication of the direction and severity of the impact, but the magnitude of the estimated figures should be treated with caution.

3.3.1. Short-term impact on oilseed meals{ TC "Short-term impact on oilseed meals" \f C \l "3" }

The reduced availability of soybean/meal imports leads to high price increases under both scenarios, with the **medium scenario** already producing a price increase of around 60 % in 2009

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[1] Changes in trade flow: Argentina -14.4 million t, USA -2.5 million t, Brazil +7 million t.

[2] Changes in trade flow: Argentina -14.4 million t, USA -2.5 million t, Brazil -15.4 million t.

and 2010. At the same time, the world market price would drop, as the EU is no longer present on the demand side for EU-non approved GMO products. Limited supplies would lead to lower consumption levels, by around 6 % in the **medium scenario**, and 50 % in the **worst case scenario**.

The sharp increase in oil meal price and greater demand for cereal feed (triggering a slight increase in cereal prices) would lead to a significant growth in total feed expenditure compared to the baseline. Feed expenditure is expected to rise by 23% under the **medium scenario** and by more than 600 % under the **worst case scenario**.

3.3.2. Short-term impact on the pig meat sector{ TC "Short-term impact on the pig meat sector" \f C \l "3" }

The impact on the EU pig meat sector would be limited under the **medium scenario**, with slightly lower production and consumption levels, in line with higher feed costs. Imports would be higher than in the baseline, but remain at a low level (81.000 t in 2009 and 96.000 t in 2010), while EU exports would be marginally lower in 2009 and be down 1 % in 2010. The EU pig meat price would exceed the baseline price by around 10 % under this scenario.

On the other hand, the impact under the **worst case scenario** would be severe, as pork production would fall 29 % and 35 % below the baseline level in 2009 and 2010, respectively. A sharp increase in the EU price would attract higher imports and reduce exports, causing the EU to become a net importer of pig meat. Scarce supplies and high prices would lead to a drop in EU consumption to 24 % below the baseline level in 2009, with a slight recovery in 2010 (to -17 %, due to higher imports).

3.3.3. Short-term impact on the poultry meat sector{ TC "Short-term impact on the poultry meat sector" \f C \l "3" }

Similarly to the impact on the pig meat sector, the **medium scenario** would have limited effects on poultry production, with EU output falling around 2 % below the baseline level. Exports would decline and imports would increase at a faster rate than in the baseline scenario, but not enough to offset the decrease in production. This would lead to a fall in consumption by around 1 %.

The impact under the **worst case scenario** would be severe, as production would drop to 29 % below the baseline in 2009 and by 44 % in 2010. Imports would grow considerably, while EU exports would disappear. Despite these trade adjustments, domestic consumption would be 16 % and 26 % below the baseline level, respectively.

3.3.4. Short-term impact on the beef meat sector{ TC "Short-term impact on the beef meat sector" \f C \l "3" }

Beef production would be less affected over the short term under both scenarios due to its feed structure, but the impact on imports and exports would be considerable. Under the **medium scenario** beef imports would increase by around 13 % and exports would fall significantly below the baseline level. Beef consumption would rise more than 1 % above the baseline level as a result of the higher prices projected for pork and poultry.

Under the **worst case scenario** imports would exceed the baseline more than fourfold and exports would be reduced to zero. Demand for beef meat would expand well above the baseline level, triggering a sharp increase in the beef meat price.

3.3.5. Medium-term impact on the meat sectors{ TC "**Medium-term impact on the meat sectors**" \f C \l "3" }

Following the end of the import ban on EU-non approved GMO oilseeds and oil meals in 2011, the market balances for individual meat products would show a gradual recovery over the medium term. In summary, while under the **medium scenario** EU meat production and consumption would almost manage to recover to the baseline levels by 2013, the impact of the GMO ban in 2009-2010 would still weigh heavily on EU output and consumption under the **worst case scenario**. In the latter, pig and poultry meat production would remain well below the baseline levels (-13 % and -17 %, respectively), while beef meat production would exceed the baseline level by 15 % in order to compensate for the shortage in meat supply.

EU imports of pig and poultry meats would remain above, and exports below the baseline level under both scenarios, but with a marked difference in terms of their scale. Beef imports would show an inverse trend, as higher production would lead to lower imports and higher exports, but again, to a different degree under the two scenarios.

Under the medium scenario, EU meat prices would return close to baseline levels, but prices under the worst case scenario would drop well below the baseline levels, driven by the decline in feed costs due to the fall in feed demand.

3.4. Likelihood of the different scenarios{ TC "**Likelihood of the different scenarios**" \f C \l "3" }

The likelihood of the three scenarios depends on the extent to which the major supplier countries are willing and able to take account of the EU market in their GMO authorisation and production strategies. In case of the USA – for which the EU is a minor market for the products considered (9% of US soybean exports go to EU-25) – the situation is fairly clear. It has already been shown in the past that the lack of EU approval does not hinder the US approval process and cultivation of GM crops.

Argentina, on the contrary, has so far been cautious not to release new GMOs prior to EU approval. The protection of its soybean processing industry is a stated Argentine policy objective (e.g., differential export taxes). An assessment of the impact of new GMOs on the export possibilities is a formal part of the GMO authorisation procedure. About 42 % of Argentinean soybean exports go to EU-25. It is therefore unlikely that Argentina will approve a GMO that could hurt its industry.

Brazil's dependency on the EU market is even more pronounced than that of Argentina (51% of the soybean exports go to EU-25). Brazil should, therefore, be also extremely cautious about approving new GMOs.

However, in the past GM soybeans were smuggled into Brazil and planted illegally over several years, which shows the limited control of the Brazilian government over farmers' behaviour. This concern is aggravated by the fact that soybean seeds are frequently saved on the farm and traded among farmers, which limits the possibilities for enforcement and control of legislation regarding GM soybean use.

Another concern is that soybean seeds used legally in Argentina and Brazil may contain traces of EU-non approved GMOs.

Finally, with the emergence of China as a major soybean importer, Argentina and Brazil will become less reliant on the European market for their soybean production in the future.

For this reason, there is real possibility that the medium and worst case scenarios could materialize. In addition, the assumption that the import bans would be lifted after 2 years when the GMO has also been authorised in the EU, may not hold in practice, as a stream of new GMOs is likely to come on the market in the coming years, which could lead to a series of asynchronous authorisation cases, with consecutive temporary bans that could prevent a normalisation of trade flows for a substantial period of time.

4. Summary and Conclusions{ TC "Summary and Conclusions" \f C \l "1" }

GM crops are increasingly cultivated in major crop exporting countries. Due to the differences in the GMO authorisation regimes between the EU and exporting countries, asynchronous authorisations of GMOs have already occurred. They are likely to become more frequent and to affect a greater range of crops in the future.

The EU applies a zero-tolerance policy for non-approved GMOs in food and feed imports. This implies that the presence of non-approved GMOs has to be kept below the technical detection threshold in imports, which is very difficult in practice.

The presence of EU non-approved GMOs has already affected imports of **maize feed products** (corn gluten feed and distillers dried grain) with, however, limited overall economic implications for EU livestock production. However, as these products are mainly imported by a few Member States, the economic impact may be more pronounced in these countries.

Concerning **soybeans and soybean meal**, the EU imports vast volumes of these feed products, which would be difficult to replace by alternative protein rich feed. Only 10-20% of imports could be replaced by substitutes.

For this study, the economic impact of a potential ban on soybean/meal imports from the three major exporting countries (USA, Argentina, and Brazil) was modelled. Three scenarios were distinguished depending on whether soybean/meal imports from one, two or all three of these countries are banned.

- If EU-non approved GM soybeans were cultivated only in the USA, but not in Argentina and Brazil, the impact on the EU market of a ban on US supplies would be small due to the moderate US import volumes.

- However, if these GMOs were also cultivated in Argentina (medium impact scenario) or in Argentina and Brazil (worst case scenario), the estimated economic impact of a two-year import ban would be severe, cutting EU feed supply (in soybean meal equivalent) by 3.3 million t and 25.7 million t, respectively. Feed expenditure would rise by 22.8% and by more than 600%, in the two scenarios.

- The short-term impacts in the pig meat and poultry sectors would be a substantial reduction in production, exports and consumption, and an increase in imports. For beef meat, production would be less affected, but exports would be significantly reduced (by 100% in the worst case scenario).

- Assuming that after two years (2009-2010) the import restrictions would be lifted again there would be a more moderate but still significant medium-term impact beyond the period of the ban. EU meat production and consumption would almost recover by 2013, but EU output and consumption would still remain below baseline levels.

Given that EU livestock production accounts for about 40% of agricultural income a loss in competitiveness of the UE livestock sector, as indicated in the medium and worst case scenarios, would have important implications for agricultural incomes and employment, with considerable knock-on effects in the upstream and downstream industries, and significant increases in meat prices for the consumer.

As a result of the import bans for soybeans/meal from the USA, Argentina and Brazil, animal production would expand in the overseas countries, as producers could take advantage of cheaper GM protein feed, while the EU would increase its imports of meat from animals fed with GM soybeans in these countries (meat from animals fed with GM feed is not subject to GMO labelling in the EU).

The prevention of the economic impact of asynchronous approvals of new GM soybeans on the EU market will depend on whether feed exporting countries refrain from the use of these GMOs until authorisation is also granted in the EU. While it can not be expected that the USA will limit the use of novel GMOs, Brazil and Argentina are more likely to be willing to wait with the introduction EU-non approved soybean varieties, as their industries are much more dependent on exports to the EU. However, given the past experience with illegal GMO plantings in Brazil, it is doubtful that Brazil would able to enforce a policy of non-adoption vis à vis its farmers.

Moreover, with the emergence of China as a major soybean importer, Argentina and Brazil will become less reliant on the European market for their soybean production.

The willingness of feed exporting countries to delay the production of GMOs until EU approval is granted may be greater if they have confidence that the EU authorisation regime for GMOs works smoothly and efficiently.

In general, it can be expected that the presence of EU non-approved GMOs will become an increasingly important factor that will limit the possibilities for animal feed imports. Even if exporting countries take their exports to the EU into account in their GMO approval strategies, unwanted mixing resulting from illegal or experimental cultivation may render these policies less effective.

From an economic point of view, the EU will certainly profit if it can ensure greater flexibility in maintaining imports from different countries, by limiting the potential impact of, and by avoiding, asynchronous approvals of GMOs. Therefore, there is an urgent need to take action in order to avoid negative implications for EU livestock production and agriculture overall.

In particular, it should be considered how the authorisation procedure, which is significantly longer than in the USA and other countries, could be accelerated. A limiting factor at present is the risk assessment procedure by EFSA. There is a long backlog of GMO applications following the modification of the GMO legislation. It should be examined why the risk assessment procedure takes so much time, and how it can be accelerated without compromising the validity of the risk assessment.

We should furthermore look at possible approaches on how to deal with imports containing minute or just detectable traces of GMOs that are fully approved in exporting countries according to internationally agreed standards. In this regard, the discussions at the level of the Codex Alimentarius are important and should be pursued.

Annex:

Results of the modelling approach{ TC "Results of the modelling approach" \f C \l "1" }

Impact on EU oilmeals balance (deviation from the baseline, %)

OILMEALS	MEDIUM		WORST CASE	
	2009	2010	2009	2010
Production	-5.0%	-4.9%	-18.0%	-17.6%
Import	-7.5%	-7.3%	-76.2%	-74.1%
Exports	0.0%	0.0%	0.0%	0.0%
Total Stocks	-12.6%	-1.5%	-68.5%	0.5%
Consumption	-6.1%	-6.6%	-48.2%	-51.1%
Feed expenditure*	22.8%	22.8%	2068.2%	682.9%

* Total feed expenditure (incl. cereals and oilseeds)

Impact on EU pig meat sector (deviation from the baseline, %)

PORK	MEDIUM		WORST CASE	
	2009	2010	2009	2010
Net Production	-0.9%	-1.8%	-29.3%	-34.7%
Import	28.6%	74.3%	637.0%	5461.0%
Exports	-0.3%	-1.1%	-86.0%	-85.3%
Consumption	-0.9%	-1.6%	-23.9%	-17.4%

Impact on EU poultry sector (deviation from the baseline, %)

POULTRY	MEDIUM		WORST CASE	
	2009	2010	2009	2010
Net Production	-1.7%	-2.6%	-29.2%	-43.9%
Import	6.6%	10.6%	92.5%	158.3%
Exports	-2.9%	-5.9%	-100.0%	-100.0%
Consumption	-1.0%	-1.5%	-15.7%	-26.3%

Impact on EU beef meat sector (deviation from the baseline, %)

BEEF	MEDIUM		WORST CASE	
	2009	2010	2009	2010
Net Production	0.0%	0.0%	-1.1%	-2.1%
Import	12.7%	14.0%	397.4%	295.8%
Exports	-41.2%	-95.1%	-100.0%	-100.0%
Consumption	1.2%	1.5%	30.2%	23.1%