CONCERTED ATTACK ON TECHNOLOGY THREATENS FOOD SECURITY & SUSTAINABILITY OF EUROPEAN FARMING

There appears to be a concerted attack on the use of agriculture technology by the European Commission, and some Member States, which could result in dramatic falls in crop yields threatening increased prices for bread, fruit and vegetables, and wine. There would also be a greater dependence on food imports, a bigger environmental footprint for agriculture, and a serious challenge to the economic viability of farm businesses.

Without a range of innovative and effective crop protection technologies, including pesticides, farmers cannot protect their crops against weed, disease and pest pressure which damages the yield and quality of the food produced. It would also make it harder to manage real consumer safety risks such as the presence of mycotoxins in cereals.

Since the early 1990s, there has been a steady erosion of the technology available to growers. The opposition to the use of GM technology in agriculture is well documented but a lesser known is fact is that at the beginning of the 1990s there were more than 1,000 active substances used in pesticides but today this is down to around 300 due to changing EU regulatory requirements. Indeed, these active substances have been withdrawn at a rate five times faster than the one at which new ones are approved[1]. Further erosion, perhaps to less than 100 active substances, is now threatened by new regulatory initiatives which are focused on trying to prove there is no theoretical risk instead of concentrating on whether a product can be used safely.

In particular, EFSA's risk assessment guidance document for bees and pesticides and the EU's new proposals for regulating pesticides containing properties which disrupt the endocrine system (similar to those found in coffee, alcohol and birth control pills), favor the identification of highly theoretical risks over solid evidence that products cause actual harm.

If implemented, the **new endocrine disruption rules** will result in the loss of around 80% of fungicides used to control diseases. At the same time, the completely impractical field study requirements set out in the **draft risk assessment guidance document** for bees and pesticides would – if implemented – take out all insecticide treatments leaving growers without any protection from pests that devour their crops[2].

A foretaste of the impact of this document is seen in the way that state of the art field studies and independent monitoring which prove that bees are not being harmed by **neonicotinoid pesticides** has been disregarded because of the emphasis placed on highly theoretical risks to bee health hypothecated in laboratories.

The impact of these regulatory measures is that yields of crops like maize, wheat, oilseed rape, grapes, and potatoes will drop by 10-20% and up to 50% in high pressure seasons resulting in a potential knock-on effect on food prices[3].

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[1] European Crop Protection Association
[2] European Crop Protection Association
[3] Humboldt Forum Report on the socio-economic and environmental impact of a restriction on neonicotinoid pesticides, January 2013; European Crop Protection Association impact assessment on the

The sensitivity of the global food supply to such yield reductions must not be underestimated. According to the World Bank, the 2012 drought in the US corn belt and the adverse weather in many parts of eastern Europe was felt across the global as commodity prices to jumped by 25% for maize and wheat, whilst soybean prices increased by 17%. Arguably, the impact would have been much greater had growers not been able to access innovative crop protection technologies.

Furthermore, it is also little known fact that the global stocks-to-use ratio for cereals and grains has generally fallen over the past five years and today stands around 20% of global production with the stock to disappearance ratios of the major exporters expected to be well below their 2008 levels[4].

The environmental impact of this attack cannot be ignored either with farmers becoming more dependent on older, less sustainable and effective pesticides which will lead to greater product concentrations in groundwater. With reduced levels of disease and pest control, the amount of wheat produced per unit of water and per unit of applied nitrogen would decrease substantially. The European crop productivity gap created by this attack could only be closed by significantly adding to the 30million hectares of land used outside of Europe to produce food which farmers are perfectly capable of doing here[5].

All this could be avoided if the EU were to consider simple risk mitigation measures such as assessing how potent an endocrine disrupting property is before banning it. After all, people accept the presence of endocrine disrupting properties in their coffee cup or wine glass because they are not potent.

Similarly, the full consideration of field studies and monitoring or practical field measures, such as the use of dust deflectors on machinery used for planting seeds treated with pesticides, or the safe placement of hives in the field, would ensure the mitigation and management of any safety risk posed by pesticides to bees.

If we continue down the current path of trying to prove that there is no theoretical risk instead of determining whether the product is safe, the incentive and ability of the R&D companies to bring forward new innovations in crop protection technology will be seriously compromised. After all, these companies need certainty and predictability in order to invest the $250m required to research and develop new technologies over a ten-year period.

This anti-technology mindset appears unique to agriculture and leads to a greater emphasis being placed on theoretical risk as opposed to actual evidence of harm. It also amounts to a concerted attack on European farming which will mean growers here end up producing less food which is not quite as safe, using more of the older unsustainable inputs and natural resources, and make them less competitive compared to their global counterparts. It will also undermine the necessity to increase food and environmental security across the world.

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proposal linked with the regulatory consequences of the cut-off criteria for Endocrine Disruption in Regulation 1107/2009, March 2013

[4] FAO Cereal Supply & Demand brief, March 2013

[5] Humboldt Forum for Food & Agriculture, Socio-economic and environmental contribution of neonicotinoid pesticides, January 2013