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Commentary to the editorial of Anne Glover

‘Is there opportunity in risk and uncertainty?’

Brussels, 5 February 2013 - Professor Anne Glover, Chief Scientist to the EU has today provided an important commentary on the impasse around cultivation of GM-crops and their approval for food and feed use in the EU.

Professor Glover unequivocally states what most plant scientist have believed for many years that: ***“there is no evidence to suggest that the GM technology per se poses any unique risk compared to any other plant breeding technology”***. This statement, which is backed up by 16 years of safe use and consumption of GM food crops, challenges the deadlock in this area and calls for immediate action. Most of applied research using GMOs and other techniques are fleeing Europe because of the poor protection to experimental fields or the high cost of each one of these trials.

Professor Glover also lays down an ethical challenge for our consideration when she asks: ***“Is it ethical to reject technology without evidence but on the grounds of preference when 1 billion global citizens every single day are starving?”*** Again, as scientists who have worked in this area for many years, we have been appalled by the way projects such as ‘Golden Rice’ have been stalled by activists, despite the fact that it could save many young lives and avert the onset of blindness due to Vitamin A deficiency in tens of thousands of children annually.

As European plant scientists, we applaud this forthright call to rationality and evidence-based policy making and we also echo the commendation by Professor Glover of the European Food Safety Authority (EFSA), which has acted as a beacon of rationality in a field that has been unfairly hampered by politics and vested interests of certain activist groups. Simply stated, it is now time for evidence-based policymaking around this issue and plant scientists throughout Europe strongly support the position of the EU Chief Scientist

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Useful links and references

Commentary & Editorial A Glover: <http://www.epsoweb.org/epsoweb-communications>

Ref. on Golden Rice: Tang et al (2009) Golden Rice is an effective source of vitamin A *Am J Clin Nutr.* 89(6): 1776–1783

Statements on agricultural technologies: <http://www.epsoweb.org/agricultural-technologies-wogr>

EPSO member institutes and universities: www.epsoweb.org/about/members.htm

EPSO representatives: www.epsoweb.org/about/representatives.htm

About EPSO

EPSO, the European Plant Science Organisation, is an independent academic organisation that represents more than 180 leading research institutes and universities from 27 European countries, Australia, Japan and New Zealand. EPSO's mission is to improve the impact and visibility of plant science in Europe.

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Editorial by Anne Glover 'Is there opportunity in risk and uncertainty?'

In November last year I attended the [European Food Safety Authority's](http://www.efsa.europa.eu) (EFSA) 10th anniversary conference at its home in Parma, Italy. I think there is a lot to celebrate. We have a complicated relationship with food and in my presentation entitled "Is food too risky to eat?", I hoped to explore why, in the Western world, we have wide access to valuable advice regarding our diets and yet we tend to ignore some simple messages around eating less, increasing dietary fibre and consumption of fruit and vegetable intake and restricting some categories of fats. Instead we are absorbed by the potential harm of new agricultural technologies on the food we eat.

I can say with certainty that the risks of eating are far outweighed by the benefits but when it comes to our attitude towards new technologies such as genetic modification applied to our food production, we are very cautious in Europe. This is due to many factors including poor communication, a perceived lack of authoritative, trusted information, a lack of assessment of the benefits and confusion around the scale of risk. When it comes to our food and the environment in which it is produced, we need clear, credible evidence of the sort that EFSA provides us with. EFSA has no axe to grind other than to seek out the best evidence possible and provide analyses and recommendations which can be used in generating policy to ensure safe food for the European citizen.

The debate around the safety of eating GM food is a very interesting one. The subject got off to a bad start in the 90's when the technology was demonised in very emotional terms with very little evidence but the assertion that the technology could be catastrophic. This stimulated a lot of research which in turn was hampered in Europe by anti-GM activists trying to prevent this evidence gathering through disruption of trials etc. However, now in 2013 with more research into GM technology than almost any other area of food research, there's no evidence to suggest that GM technology *per se* poses any unique risk compared to any other plant breeding technology. It seems to me now that the real concern is how the technology is applied, i.e. the business practice.

If this is the case, then perhaps we need to do two things. We need to challenge business to demonstrate an ethical approach to the use of new technologies and we need to reassess our attitudes to GM food in the light of all the evidence available. This is more pressing now than ever as we face major global challenges, particularly in the area of food security, energy and climate change. To be provocative - can we meet the demand for food to feed 9 billion citizens by 2050 without using every tool in the tool box? Is it ethical to reject technology without evidence but on the grounds of preference when 1 billion global citizens every single day are starving? The best safeguard we have as European citizens is to rely on the independence and credibility of agencies such as EFSA, who bring together all the evidence and provide authoritative opinions.

Our obligations as citizens is to look at the evidence presented and have the courage to reposition our views as that evidence accumulates. All of us, scientists and non-scientists alike must guard against confirmation bias where we choose to look at only that evidence that fits our opinions. This is summed up nicely by the comment attributed to Daniel Patrick Moynihan who said "Everyone is entitled to their own opinions, but they are not entitled to their own facts."

Anne Glover, Chief Scientific Adviser to the President of the European Commission

