



SEARCH



Murphy's paper, which reports on The FAO Symposium on agbiotech, February 2016, provides evidence of changes in the use of agricultural biotechnology, reports on a number of case studies in the use of GM in developing countries and discusses the future role of this unfolding technology and the contribution it may make to secure food supplies.

The substance of the discussion is that the traditional model of GM as a tool by which big transnational companies dominated the world is clearly untrue.

In a variety of Public Private Partnerships, the technique has offered substantial gains to small holders.

Through Public research agencies focus is directed on the potential for social benefit as well as economic gain.

Through genome editing new, improved plants are made available. In some cases there may be no residual evidence that genetic tools have been used, making current testing regimes irrelevant.

Agricultural biotechnology is already widely used to enhance productivity and resilience as well as to reduce the use to insecticides and herbicides. This benefits both food security and environmental conservation.

In a world facing a remorseless rise in population and an ever greater challenge from climate change this is desperately needed good news.

The hostility of much of Europe to the use of methods that offer so much prompts questions about the application of science, especially in relation to the food system.

There are many involved issues among them:

Distrust of the 'expert':

If it works, why fix it?

The social cost of economic restructuring:

Externalities associated with new and old methods.

New science involves grappling with ideas with which we have no familiarity. In coming to grips with what it offers we have to rely on 'experts'. An expert is someone who knows more about a specific issue than most other people. It is important to recognise that they do not know everything and inevitably as science advances their evidence may prove to be wrong. (Misguidedly this enables people, who for whatever reason, prefer not to employ reliable evidence in their decision processes, to reject innovations based on it). In effect we often prefer an emotionally made decision to trying to understand the problem.

The complexity of this distrust is greatly increased because in reality the analysis of almost every innovation demands expertise in a number of dissimilar areas – social, economic, philosophical as well as of the native science from which the new product emerges.

As a result people with a variety of interests to defend find it easy to produce rival experts, to challenge the clarity of the original proposal for a new product or method.

Every innovation involves risk. A standard response from those whose current situation is comfortable, is 'If it works, don't fix it'. Experience with helpful computer experts who promise to iron out minor muddles resulting from miss-use seems to confirm this.

The logical problem here is the refusal to accept that failure to adapt is itself a major risk. Europe has been comfortable with an assured food supply from native sources plus low cost imports.

However, in the long term the failure to adapt new, more efficient production systems could destroy the industry. Exports would demand ever-growing subsidies; imports would displace home production on grounds of suitability for purpose and price, assuming we accept the production technology. The risks of inertia are unseen but enormous.

New methods imply restructuring traditional industries. GM technology may make redundant historical ways of controlling pests and diseases. This is painful for existing producers and their communities.

For the suppliers of such inputs capital may become worthless and existing jobs disappear.

Major changes, such as these have impacted on European agriculture. As a result established or traditional communities lost their economic rationale.

Economic calculation may indicate that the overall benefit to society of making a change is so large that all 'losers' could be fully compensated for any loss of income. In practice such aids to change are seldom supported.

Additional social security payments for those who lose jobs or businesses become necessary but are resisted whilst the recipients may be seen as idle or incompetent. Faced with this reality those who feel threatened by new methods have little choice but to resist them.

All economic activities involve social costs and benefits. Some of these will figure within the accounts of the firms concerned however, many do not.

Prominent among these are changes in the impact of economic activity on the natural environment, changes that have costs not only for those who enjoy prized amenities in (and of) the countryside but also in such benefits as controlled water supplies, waste disposal and clean air.

New technologies challenge the status quo and are instinctively rejected.

Developments in the science and application of biotechnology may well suggest it has turned one corner in gaining acceptability.

The reality of political decision taking suggests that as it does so, it will encounter others.

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 6th May 2016

Comments