Centre for Agricultural Strategy

Biotechnologies in agriculture and food-coming to the market

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Summary and Conclusions

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It would be arrogant of me to assume that I can sum up all that you have listened to today, but may I start with my warmest thanks to our Chairmen, speakers, and the CAS organising team who have all contributed in so many different ways to providing this platform for a timely and most interesting, enlightening, and educational debate on where the application of biotechnology is likely to take us in the production, processing and manufacturing of our food in the future.

My summary can only take the form of reflection on several key impressions I have formed as the papers have been presented and debated throughout the day.

First, in conversations with scientists during the past decade they have assured me that 'ten years from now biotechnology will revolutionise the production of agricultural crops and food manufacturing'. My impression, from today's discussions, is that this science is making its impact here and now, that the pace of change is fast and that this conference, taking place on the threshold of new, exciting challenges and opportunities, has made a contribution by bringing together all the vital interests concerned. The Centre for Agricultural Strategy exists to take a long-term perspective, stressing the crucial importance of thinking beyond the current preoccupations of government, the media and business. In that process it has to take account of emerging possibilities and carefully formed predictions, such as those relating to climate change, and ways in which these longer-term considerations can best be integrated into decisions we have to make today. Today's discussions relating to biotechnology and its role in the future production of food fit squarely into that role.

Second, our discussion has drawn attention to the critical importance of the regulatory framework. We are told that it needs to be clear and to be relevant to the genuine ways in which regulation can distort competition and put our industries at a disadvantage compared with those located in other countries. These are all perfectly fair and reasonable questions. I would add, however, that we must have a regulatory system in which the public have confidence. Without such confidence it will not be possible to build on the possibilities which this progress in science has made possible. Further, the regulatory system must not become static. We need to monitor the regulations themselves. As our understanding grows and as public acceptance of the products of biotechnology increases so the process of regulation itself needs to develop.

Third, the public interest has many dimensions. Clearly they include the issue of safety. I was relieved to hear Alan Malcolm say that he could take a bet that nobody has died from food poisoning today. I hope he is right! We live in a world in which there are many things we do not know, but in which we have to take decisions. Necessarily we have to take risks. It is right that we should draw attention to these risks and scrutinise them as carefully and diligently as we can. What we cannot do is to avoid risk. This exists whether we choose to act or to refrain from action. We need to strike a balance not being obsessed with the dangers of what is new and forgetting that there can be dangers, too, in what is old. In coping with risks our attitudes are affected, as Tom Blundell reminded us, by whether we feel we can exercise some control over events. In that context the discussion we have had about the labelling of products and ways in which we can help consumers to make informed choices is of great importance.

Finally, when we started to arrange this conference, among the key issues in our minds were 'what would determine the rate of introduction of new methods based on biotechnology, how would they affect the public and how would they be perceived?' Don Curry directed our thought to these matters when he expressed anxieties about the application of biotechnology to animals, speaking of 'scepticism about government, its advisers, and the scientists involved'. Some of that scepticism has been reflected here today. We need to consider what can be done to improve the situation. One important issue is 'openness' - the ability of people to receive full and accurate answers to questions that concern them about new technologies. Jørn Mahler drew our attention to the commitment of Novo Nordisk to 'bringing people on board and creating partnerships'. We have considered, too, responses by other companies who have sought, by labelling, providing information and encouraging good relations, to create confidence and a sense of public understanding and acceptance. There are genuine problems of communication. As Dean Madden reminded us, the language used by science is not readily

understood outside the disciplines concerned. There is a general acceptance that we need to do more through our educational activities and that what is first imparted in schools must be carried forward and updated through life. If the public see themselves as partners who can influence the development and application of biotechnology and other sciences, there is good reason to believe that there will be a more ready acceptance.

We started this conference with a clear and clearly argued statement by Oliver Doubleday of his expectations concerning the use of biotechnology. Above all, he was looking for developments that would reduce his production costs, improve his crop yields and, hopefully, create new products for new markets. I expect that every type of business would welcome these sorts of benefit. Biotechnology certainly offers such prospects. Their realisation in agriculture will depend on those who accept and adopt the new tools. They will be able to secure lower costs and higher yields and outputs which are more highly valued by the market. The discussion at this conference should whet the appetite of those farmers who wish to compete in the emerging markets of the next century.

At the wider, policy, level there remains a real danger that Europe, if it fails to participate in the application of biotechnology, will find itself lagging behind its international competitors. It seems likely that barriers to world trade in agriculture will be further reduced as new trade negotiations occur. It is also apparent that there is a very large and growing demand for agricultural goods in the world market. How much of this translates into sales of food produced in Europe will depend critically on the extent to which real incomes rise in the poorer countries of the world. In meeting their demands it will be critical to make full use of those technologies which, consistently with safeguarding the environment, enable people to buy the food they want at least cost. Biotechnology, used wisely, has much to offer European farmers if they are to compete in that market. If, in defence of the short-run domestic *status quo,* Europe inhibits these developments, then the prospect for its farmers, its food industries and its consumers will be diminished in the coming decades.

We have been debating the development and prospects for application of a powerful technology. In combination with others it will reshape the character and nature of the businesses that make up the agriculture and food industries. The direction in which this reshaping occurs will be determined by markets and by policies. If, within the market or through legislation, we are to make the right choices we need good information, careful explanation and a readiness to listen carefully to each other. Together these form a crucial element in what we have repeatedly stressed throughout the day, the need for good communication. This conference, by bringing together a wide range of those involved, has made some progress in that direction.