

# The ABIC 2004 Manifesto: Science helps to improve Agricultural Systems



- I. On our planet, 18% of the land mass is used for agricultural production. This fraction cannot be increased substantially.
- II. It is absolutely essential that the yield per unit of land increases beyond current levels given that:
  - The human population is still growing, and will reach about nine billion by 2040;
  - 7 mio hectare of agricultural land (equivalent to 60% of the German agricultural area) are lost annually to growth of cities and other non-agricultural uses;
  - Consumer diets in developing countries are increasingly changing from plant-based proteins to animal protein, a trend that requires a greater amount of crop-based feed.
- III. In spite of improvements in agricultural production within the last few decades, e.g. in yield and quality, intensive agriculture can have significant negative impacts on the environment including intensive use of water, reduced biodiversity, soil erosion and salinization.
- IV. Hence, the introduction and widespread adoption of better agronomic systems, that result in crops higher in quality and yield and reduced land use, and even more sustainable and environmentally friendly agricultural practices, are essential if we are to meet the population growth and environmental challenges of the future.



**The undersigned are convinced that these premises are true and accurate and, therefore, freely subscribe to the following conclusions:**

- I. Eco-compatible agriculture, that provides high quality and high yielding crops, should take advantage of all available technologies, including genetic modification, to develop crop plants that are optimally adapted to their environment.
- II. Science has for many years played a pivotal role in providing people with more and better food. Sound, modern science, especially in plant biotechnology, will help to solve current and future problems in feeding a growing population; in particular, plant science will provide solutions to problems at the interface between agriculture and the environment.
- III. We are also convinced that the new agricultural technologies can contribute significantly to sustainability and thus to equity in food production systems. Equity and sustainability in agriculture can only be reached if we also address the complex problems and reasons of poverty.
- IV. All available science-based technologies that are increasingly friendly for the environment and respectful of biodiversity should be used to improve agricultural production systems; these include conventional breeding, advanced biotechnologies, genomics, cell biology, and agricultural ecology.
- V. Genetically modified plants will help to ensure a secure and sustainable future for agriculture. The undersigned support the safe and responsible use of genetically modified crops.
- VI. We are aware that the introduction of genetically modified crops in agriculture has generated an intensive public debate. An open dialog with the public will help to create a better understanding of the relevance of modern genetics in developing environmentally safe, disease resistant, more nutritious and high yielding crops.



**The undersigned scientists and technologists favor the effective exploitation of scientific principles in modern agriculture, including, when useful, the safe adoption of GMOs, and ask the support of colleagues active at the interface between science and its applications.**

**Furthermore, we ask politicians and regulators in plant genetic engineering for:**

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THE USE OF UNBIASED INFORMATION IN LAW-MAKING AND POLITICS

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THE SUPPORT OF R&D TO FOSTER INNOVATION IN PLANT GENETIC ENGINEERING

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THE ELIMINATION OF UNNECESSARY, CURRENTLY EXISTING HURDLES IN LAWS  
AND REGULATIONS CONCERNING THESE TECHNOLOGIES

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This Manifesto can be undersigned on our website [www.abic2004.org/manifesto/](http://www.abic2004.org/manifesto/)  
or send email to [manifesto@abic2004.org](mailto:manifesto@abic2004.org)