Speech at the Seventh International Conference on GMO's Safety By Mr. Zhang Baowen Vice Minister of Agriculture of the People's Republic of China

October 11, 2002

Mr. Chairman,
Dear guests,
Ladies and Gentlemen:

The two-year based International Conference on GMOs' Safety is being held for the first time in Beijing, China. Therefore, it has significant importance. I am very pleased to attend this Conference. It is also my pleasure to have the opportunity to discuss the GMO's safety issue, which is much concerned by the international community, along with Dr. Alan McHughen, Chairman of International Bio-Safety Research Society and more than 150 well-known scientists from more than 30 countries in the field of bio-safety as well as governments' administrators. I believe that the Conference will not only provide participants with a forum to discuss and put forward their perspectives, but also give full play to the research, safety administration and policy making on GMOs in various countries, and in particular, providing an opportunity to developing countries including China for information exchange and strengthening cooperation. Towards this end, I would like to take this opportunity to extend my warm congratulation to the Conference. And at the same time, I would also like to give a briefing on the research of agri-GMO's biotechnology in China and its legislation as well as administration, so as to indicate our observations and fundamental attitude.

I. The Chinese Government Pays Great Attention to the Research of Agri-biotechnology;

I am of the view that agri-biotechnology is an important field for modern biotechnology. Biotechnology and sector's development in the 21st Century will

produce significant influence on agricultural science and technology progress and economic growth in China. At present, agriculture and rural economy in China has entered into a new development stage. The major breakthroughs in the research of biotechnology and its industrialization will surly give an impetus to the leap-froging development of modern agriculture in China.

China began its GMO research in the early 80 sof the 20th century. In recent years, the Chinese Government has been continuously increasing its support to the biotechnology research program and actively enhancing the agricultural biotechnology research. Currently in China, research is being conducted on over 130 kinds of GMOs, covering more than 100 kinds of genes. With regard to the research on cotton, after nearly 10 years of hard work, 45 improved varieties have been approved for environment release. 13 varieties, including GK19 and Zhongmian 38, have been examined by the national government and confirmed as pest-resistant, high-yielding and quality cotton varieties. These varieties have been put into production in 12 provinces, their grown area being over 600,000 ha. in 2001. For the first time in the world, China has developed a bivalent B.t cotton (SGK321), which has a more stable insecticidal effect and is grown on 24,000 ha. Thus, China has become the second country in the world that has independently developed B.t cotton and holds the intellectual property of its own. With regard to research on rice, the herbicide-resistant rice (barsta) developed by China has passed the safety evaluation of the environment release stage and is ready for production test. The transgenic bacterial-blight-resistant rice has entered into the stage of field experiment. In corn research, the pest-resistant transgenic corn and corn with high content of lysine have undergone small-scaled experiment. As to soybean research, the transgenic aphis-resistant soybean and soybean-moth-resistant transgenic B.t soybean have been approved for environment release. With a view to applying biotechnology research achievements in agriculture as soon as possible and after the safety evaluation, the Ministry of Agriculture approved, from 1997 to 2001, 10 genetically modified plants for field environment release, which include rice, corn, cotton, soybean, rape, potato and poplar tree. And also such plants as genetically modified cotton, tomato, sweet pepper and petunia have been

approved for commercial production, and so has the vaccine produced by microbiological genetic engineering for animal use. In addition, China has implemented in recent years some important programs to develop industries centered around high technologies, such as Development of B.t Cotton Seed Production into an Industry and Development of Genetic Engineering Vaccine Production into an Industry. These programs are beginning to play their roles in agricultural production.

From the perspective of overall research level, the research on GMO crops in specific areas in China has been ranking among the advanced countries in the World. However, there is still a big gap in compare with the world advanced level. We have noticed that although there have been a lot of arguments; the GMO biotechnology in the world has been continuously developing since the 80s of the last Century. The total area for GMO crops has increased from 1.7 million hectares in 1996 to 52.6 million hectares in 2001, increased by 30 times within 6 years. Till 2000, nearly 50 countries have developed over 200 GMO crops, with the number of GMO crops that has been ratified to enter into market reaching 149 and 42 in the U.S. GMO crops processed food and ingredients totals over 4000. The sale value of GMO crops and products has also increased from US$ 75 million in 1995 to US$ 3 billion in 2000. The trend of developing the GMO technology is inevitable. Towards this end, China shows its continual support for the biotechnology research in the Tenth Five-Year Plan for Science and Technology, and focus on the technologies including bioengineering, gene operation, bio-information as well as the crop gene group research.

II. China's Fundamental Attitude towards Agri-biotechnology and Bio-Safety;

While developing the agri-biotechnology, we realize that the gene engineering technology with the recombinant DNA technology as the example, will not only bring great benefits to the agricultural production, human life and social progress, but also cause potential risk to the ecological environment and human health. From science perspective, we need a long-term traceable research on its

development.

As a large country in terms of agriculture and biological diversity, China is the origin place for the major farm crops including soybean and rice. Thus we must attach great importance to bio-safety while developing the biotechnology. In recent years, the worldwide arguments on GMOs, originally only a technical issue, have been expanded to the fields of politics, economy, trade, society and ethics. And the hot point of the issue lies in environment safety and food safety relating to agro-GMOs. With the improvement of living standards, the Chinese people have put higher requirements on the quality and safety of farm products. To take all these impacts into consideration, China, in the short term, will adopt the principle of "cautiously extension, strengthened management and progressively advancing". As for the important species originated in China, such as soybean and rice as well as other major grain and oil crops, we should strengthen management, extend cautiously and progressively promote industrialization. To this end, with a view to the practices of some related international organizations and vast majority of countries, the Chinese Government has formulated and issued the laws and regulations on GMOs safety so as to strengthen the safety management on GMOs and regulate the relevant industries moving towards a healthy development.

On May 23, 2001, the Chinese Government issued the *Regulation on safety Management of Agro-GMOs*. Based on the *Implementing Measures for the Safety Administration of Agro-Organism Gen Engineering* issued earlier by the Ministry of Agriculture, the new *Regulation* expand its governance from research and experiment, to production, processing and operation as well as to import and export. The *Regulation* stipulates that regimes of safety evaluation, labeling management production and operation license as well as examination and approval for safety importation on GMO should be launched. It indicates that China starts to conduct a comprehensive management on agro-GMOs in research, experiment, production, processing, operation and import as well as export.

On January 5, 2002, the Ministry of Agriculture (MOA) issued three supporting measures in relation to the *"Regulation"*, namely*"Administration Measures on safety Evaluation of Agro-GMOs"*, *"Administration Measures on Safety Importation of Agro-GMOs"* and *"Administration Measures on Labeling of Agro-GMOs"*, which came into force on March 20. In order to promote the research on agri-biotechnology, push further technology innovation and increase technical reserve as well as to enhance the research level, the *Regulation and supporting* measures stipulate that the experimental research on and the intermedium test for Agro-GMO are subject to reporting system instead of going through the process for examination and approval.

III. Implementation of Safety Regulations on Agro-organism in China

To ensure the implementation of the *"Regulation"*, *three supporting measures* and the temporary measures, the Ministry of Agriculture has adopted the following effective administrative measures.

1. Establishing administrative agencies. The Ministry of Agriculture has established the Leading Group on Safety Administration of Agro-GMOs, which is responsible for the research on the important issues relating to the safety administration of Agro-GMOs. The Ministry has also set up the Office on Safety Administration of Agro-GMOs of MOA, which is in charge of the overall coordination and safety administration on Agro-GMOs. At present, the competent agricultural administrative departments at provincial level have accordingly established relevant agencies in charge of safety administration on Agro-GMO as well.

2. Creating the joint meeting system at cross-ministry level for the safety administration on Agro-GMOs. The joint meeting at cross-ministry level is attended by the responsible persons from the Ministry of Agriculture, the Ministry of Foreign Trade and Economic Cooperation, the Ministry of Health, the Ministry of Science and Technology, the State General Administration of the PRC for Quality Supervision and Inspection and Quarantine and the State Environmental Protection Administration. It is responsible for the research on

the coordination of the important issues relating to the safety administration on Agro-GMOs. To date, this coordinative mechanism runs well.

3. Establishing the State Commission for Safety Administration on Agro-GMOs. It is made up of 58 experts from various departments, scientific research institutes and educational institutions, who are engaged in the research on and management of biotechnology and bio-safety. They are responsible for safety evaluation of Agro-GMOs.

4. Working out administrative procedures. In order to meet the requirements for entering into the WTO and secure a transparent and fair process on Agro-GMOs' safety evaluation and on application and approval for importation and labeling, the Ministry of Agriculture has formulated four normative documents, namely *"Administration Procedure for Safety Evaluation on Agro-GMOs"*, *"Administration Procedure for Safety Importation of Agro-GMOs"*, *"Certification and Approval Procedure for Labeling of Agro-GMOs"*, and *"Administration Procedure for Temporary Measures".* These four documents have made explicit speculations on the requirements and time limits regarding application, acceptance, examination and approval as well as official written reply, and they have been issued publicly.

At present, the Ministry of Agriculture is losing no time in working out standards for agro-GMOs safety evaluation and testing, intensifying the efforts on research of agro-GMOs safety and building of the technical support system. The Ministry is also responsible for organizing the work of certification on agro-GMOS testing institutions. At the same time, the Ministry also requires all competent agricultural administration departments at provincial level to set up their respective agencies, which are responsible for agro-GMOs in order to strengthen the management of agro GMOs.

On the whole, in line with the common practices by relevant international organizations and most countries in the world, the Chinese government draws up its own laws and regulations in biological safety in order to strengthen the safety

management for agro- GMOs and provide framework for the development of relevant industries. This shows China's high sense of responsibility towards maintaining biological diversity, protections of ecological environment and the health of human beings. The "Regulations" and its supporting measures, all of which have been formulated and enacted in accordance with the principle of scientificity, transparency and fairness, which applies to all agro-GMOs from all countries, including China. As for foreign enterprises, we have taken measures of most-favored-nation treatment and national treatment in to full consideration, which conforms to the international norms.

Mr. Chairman, ladies and gentlemen, I believe the essence of GMOs safety issue boils down to the issue of science. At last, the solution to the issue will rely on scientific research and experiments while the safety evaluation on GMOs is at the very core of safety management. Safety evaluation is to evaluate the potential danger and risk so as to make decisions after taking the advantages and disadvantages into account. The issue of biological safety concerning GMOs, the topic under discussion at the conference, draws much attention by the Chinese government and the public. Therefore, I sincerely hope that International Biological Safety Research Society, and other relevant international organizations and scientists from various countries will intensity the technical cooperation in GMO safety research and conduct more in-depth research and experiments together in the spirit of being highly responsible for ecological environment and the health of humankind as well as scrupulous attitude in science. Your research findings will provide more scientific basis for government's decision-making, GMO technique research and the development of the sector, while at the same time supporting to improve the safety management and the capabilities of developing countries in conducting research in biological technologies. What you have jointly done will positively contribute to the sound development of agri-biotechnologies in the 21st century.

Autumn is the best season in Beijing. I wish all experts a pleasant stay in Beijing and the conference a great success.

Thank you all!