

USDA Foreign Agricultural Service

GAIN Report

Global Agricultural Information Network

THIS REPORT CONTAINS ASSESSMENTS OF COMMODITY AND TRADE ISSUES MADE BY
USDA STAFF AND NOT NECESSARILY STATEMENTS OF OFFICIAL U.S. GOVERNMENT
POLICY

Voluntary Public

Date: 5/13/2011

GAIN Report Number: CH11025

China - Peoples Republic of

Post: Beijing

Guidelines to Develop China's Seed Industry

Report Categories:

Planting Seeds

Approved By:

Scott Sindelar

Prepared By:

Joshua Emmanuel Lagos, Zhang Lei

Report Highlights:

The State Council released the document in late April 2011. It is considered to be the core policy package to help further develop China's seed industry, and focuses on encouraging vertical integration through tax incentives and other government support. This report is an unofficial translation of the document.

General Information:

Guiding Opinions on Accelerating the Development of the Modern Seed Industry

By the State Council

China is the largest agricultural producer and seed user. The seed industry is a strategic and core industry, and the foundation of ensuring long-term stable agricultural development and ensuring the food security of the state. In order to promote the innovation of our agricultural technology and enhance the competitiveness of the seed industry, the opinions as follows are put forward on accelerating the development of the modern agricultural seed industry:

I. The Agricultural Seed Industry in China

1. The agricultural seed industry has achieved significant development. Ever since the reform and opening up, especially since 2000, the seed variety breeding level in China has been markedly enhanced, with many groundbreaking improved varieties such as super-hybrid rice, compact-type corn, quality wheat, transgenic bollworm-resistant cotton, and canola; the deliverability of high-quality seeds greatly has been enhanced, including the commercialization of hybrid corn and hybrid rice and the packaging, labeling, and distribution of major crop seeds; the business strength of the seed enterprises has been largely boosted, with a group of seed enterprises integrating seed breeding, production, and marketing, and the market concentration has been gradually improved; the seed management institutional reform is steadily advancing, with separate administrative functions from enterprises and strengthening market supervision. The cultivation and application of improved varieties has made great contributions to improving the comprehensive productive capacity of agriculture, ensuring effective supplies of produce and boosting farmer income growth.

2. There are a lot of challenges in the development of seed industry. Higher requirements are placed on our agricultural seed industry to ensure China's food security and constructing a modern agriculture. However, today, the seed industry in China is still in its initial stage of development, whereas the scientific research system and mechanism of seed industry are not yet established; it witnesses a disjunction between research and production, outdated breeding methods, technologies and modes and insufficient innovation ability; low seed market access threshold; a large number of enterprises; small scale, weak R&D capability; insufficient breeding resources and talents; a lack of competitiveness; unsound policy for supporting the seed supply; weak infrastructure for advanced seed breeding, and a lack of disaster relief capability; backward seed market supervision technologies and measures; inadequate supervision, laws and regulations that cannot address the agricultural seed industry development; and frequent phenomena of illegal production and operation and unfair competition. These problems have severely impacted the sound development of the agricultural seed industry in China. They restrict the sustainable agricultural development and must be resolved.

II. Overall Requirements

3. Guiding ideology. Guided by a scientific outlook on development, we should advance the institutional reform and mechanism of innovation, improve and perfect laws and regulations, integrate agricultural seed industry resources, increase policy support, enlarge investments in the agricultural seed industry, strengthen market supervision, speedily improve technical innovation, corporate competitiveness, seed supply guarantees, and market supervision capabilities of our agricultural seed industry, construct a modern industry-leading, enterprise-centered and fully-backed agricultural seed industry system in the trinity of enterprises, universities, and research institutes, and integrate seed breeding, production and marketing, as well as enhance the development level of China's agricultural seed industry comprehensively.

4. Basic principles

— Independent innovation. We should enhance the original innovation, integrated innovation of agricultural seed industry technologies and international cooperation, encourage the introduction of international seed germplasm resources, advanced seed breeding and production technologies, and manufacturing technologies of physical equipments in the agricultural seed industry, accelerate fostering scientific achievements with independent intellectual property rights and improve the core competitiveness of the industry.

— Enterprise-oriented. We should integrate the resources in the seed industry, mainly by those seed enterprises that integrate “breeding, production, and marketing,” establish a sound modern enterprise system and drive corporate and social funding by means of policy guidance, and fully bring out the enterprises’ leading role in commercialized breeding, technology transfer, and application, etc.

— Trinity of enterprises, universities and research institutes. We should support the factors such as germplasm resources and research talents from research institutes and institutions of higher learning in flowing to the seed enterprises and gradually form into an enterprise-centered, market-oriented, and capital-linked technical innovation mode in agricultural seed industry that shares both benefits and risks.

— Supporting the superior and strong enterprises. We should enhance policy guidance to increase basic and commonweal research investments in leading research institutes and college and universities. Give priority support to those seed companies of “integrated breeding, production, and marketing” that are with strong breeding capacity, a high market share, and a large operation scale, to enhance their innovation ability.

5. Development goals. By 2020, we shall form a new breeding mechanism featuring a rational scientific research labor division, intensive resources, and efficient operation, and combining the trinity of enterprises, universities and research institutes, foster a set of ground-breaking improved varieties enjoying great application prospects and independent IPR, build a group of standardized, large-scale, intensive and mechanized seed production bases and forge an array of modern agricultural seed industry groups with integrated seed breeding, production, and marketing and boasting strong breeding ability, advanced manufacturing technologies, sound marketing network and well placed technical services, build a sound seed management system with specified responsibilities, advanced measures and effective supervision, and greatly improve the independent R&D capability and coverage of improved varieties to ensure the effective supply of grain.

III. Key Tasks

6. Strengthen the fundamental research on agricultural seed industry. The state and provincial research institutes, college and universities, shall focus on germplasm resources collection, protection, identification as well as improvement and creation of breeding materials, place emphasis on advanced basic and applied technology such as on theory and technique of crop breeding, molecular biotechnology, variety detection method, seed manufacturing and inspection techniques, as well as research on conventional crop breeding and asexual reproduction material selection and breeding. Further implement “National Research Program of New Transgenic Variety Cultivation.” The public research finding sharing mechanism shall be perfected to provide technical support to seed enterprises. Department concerned shall increase its investment in fundamental research on agricultural seed industry and enhance support to the bio-breeding industry.

7. Enhance talent cultivation in seed industry. We should enhance construction of subjects related to agricultural seed industry in college and universities, key laboratories, engineering research center and training bases, an efficient system integrating teaching, scientific research and practice to improve the quality of talent. Make full use of the resources in universities and colleges and intensify efforts in further education and training so as to provide personnel and technical support to the development of seed industry in China.

8. Establish commercialized breeding system. We should encourage seed companies of “integrated breeding, production and marketing” to integrate existing breeding resources and leverage the research findings from R&D according to the market-oriented and industrialized breeding modes, as well as gradually establish the enterprise-centered commercialized new breeding mechanism. Actively promote the establishment of strategic innovation alliances of the seed industry and establish a green channel of variety registration for those companies of “integrated breeding, production and marketing”. Lead and actively boost the retreat of research institutes and institutions, colleges, and universities from commercialized breeding, striving to realize initial disconnection between the above mentioned organizations and the seed enterprises affiliated by the end of the 12th Five-year Plan.

9. Promote the merger and restructuring among seed enterprises. We should substantially improve the market access threshold in terms of corporate registered capital, fixed assets, R&D capability and technical level to optimize and adjust enterprise layout through market mechanism. Support the large enterprises in getting involved with the agricultural seed industry by means of M&A, equity participation, etc; encourage the merger and restructuring among seed enterprises,

especially the large advantaged seed enterprises to integrate resources of seed industry, optimize resource allocation and foster those companies of “integrated breeding, production, and marketing” who have core competencies and strong international competitiveness.

10. Enhance seed production base construction. We should plan the scientific layout of predominant seed production areas and establish corresponding production protection areas for rigorous protection. Enhance the planning and construction and land protection of advantaged seed breeding bases such as the northwest, southwest, and Hainan Province. Encourage the seed enterprises to establish relatively intensive and stable seed production base by means of cooperation with seed production cooperative societies to enhance seed production capability.

11. Perfect the seed reserve regulation and control system. We should establish both the state and provincial seed reserve systems on the basis of existing state seed reserve for disaster and famine relief. The state major reserving items include seeds and parents of hybrid corn and hybrid rice to guarantee the supply of hybrid seeds and stabilize market prices; the provincial major reserving items are early maturity and stable crop seeds to ensure post-disaster production recovery and market adjustment. The seed stocking tasks are formulated by means of bidding and tendering, and those seed companies of “integrated breeding, production and marketing” who enjoy the state priority support shall get actively involved in the bidding process.

12. Strict variety registration and protection. We should further standardize the activities including variety regional test, production test, variety protection test, biotech safety evaluation and cross-regional fine variety introduction, unify the qualification standards, raise the variety registration conditions, coordinate the state and provincial level variety registration and accelerate the retreat of implantable varieties. Complete the new plant variety protection system, strengthen the enforcement of PVPA, and reinforce new variety protection and information service.

13. Consolidate market supervision and administration. We should conduct strict control over seed production and operation permit, rectify and investigate into cheating and illegalities for the sake of approval. Comprehensively push forward county-level agricultural law enforcement, reinforce seed post-permit supervision and daily law enforcement, increase management efforts on seed bases and distribution, severely fight against panic buying, arbitrage, infringement and production and management of fake and inferior seeds and maintain a fair market order in practical term. Enhance quarantine inspection on seeds import and export.

14. Enhance international cooperation and communication of the seed industry. We should support advantaged domestic seed enterprises in developing an overseas market. Encourage foreign-funded enterprises to introduce advanced breeding techniques and superior germplasm resources and regulate these companies’ activities related to germplasm resource collection, variety development, seed production, marketing and trading in China and conduct safety inspection on M&A activities by the foreign-funded enterprises over domestic seed enterprises.

IV. Policies and Measures

In order to carry out development layout of modern agricultural seed industry, we should work out a development layout of the national modern agricultural seed industry based on general requirements that boost the development of the modern agricultural seed industry. And put forward development targets, orientation and key points for various kinds of crops, areas and stages. At the same time, tasks and measures of developing the modern agricultural seed industry in the next 10 years should be clarified. Adjust and optimize the way of allocating crop seed resources. With the existing financing channels, make overall plans for financing and conducting infrastructure projects for the agricultural seed industry; guide actively social funds into agricultural seed industry and provide more support to the development of agricultural seed industry.

In order to increase investments to companies engaged in breeding, based on principle of “qualification certification, periodical reexamination, selecting the superior, and eliminating the inferior,” we should give support to those seed companies of “integrated breeding, production and marketing”, that are large-scaled, capable, and have rapid growth, and encourage them to commercially breed. Central finance will invest more to those companies to introduce advanced breeding technologies, equipment, and high-end talents from both home and abroad, merge competitive research institutes or seed companies.

In order to implement a new run of seed program, we should invest more to crop infrastructure, especially enhance

infrastructure for seed breeding innovation, seed cultivars testing, and seed inspection and testing. Also encourage seed companies of “integrated breeding, production, and marketing” to establish commercialized breeding bases; purchase advanced seed production, processing, packing, inspection, and storage and transport equipment; provide better conditions for engineering research, cultivars testing, application, and generalization.

In order to provide innovation to technology assessment and transfer, we should improve existing assessment mode of research achievements in crop seed industry, improve incentive mechanism of commercialized seed breeding achievements and establish an assessment system to enhance basic and public-benefit research and solve actual production problems. Explore and try to build a variety right transfer platform for hybrid rice and corn, establish a reasonable benefit distribution mechanism and motivate researchers.

In order to encourage scientific and technological resources to flow into companies, we should encourage research institutes or individuals being engaged in commercialized breeding enter into seed companies to conduct breeding. Encourage a reasonable flow of science and technology resources under a market mechanism. Local governments should resolve the residence permit problem for new-come researchers.

In order to implement tax preference policy for seed companies, qualified seed companies of “integrated breeding, production and marketing” will be exempted from income tax. For increases in asset valuation, profit from debt restructuring, land and real estate title transfers involved in mergers and reconstruction, tax preferences should be given according to relevant national regulations.

In order to polish up seed production, purchase, and storage policies, we should establish seed production risk sharing mechanisms, with support from the government, participation of seed companies and a commercialized operation mode. Select qualified crop seed production as insurance experimental units. Further generalize use of high-efficiency and safe seed production technologies and advanced machines. The latter should be listed into the scope of farm machinery enjoying subsidies. Better refine seed purchase and storage policies, encourage and guide relevant financial organizations, especially the non-commercial banks, to enhance credit support to seed purchasing and storage. Seed storage will enjoy subsidies from both the central and provincial government.

IV. Supporting Measures

In order to improve laws and regulations, we should amend and improve seed related laws and regulations; improve variety testing, registration, protection and an exit system; improve relevant regulations for the seed production and operation permit; work out more severe penalty standards for illegal behaviors; carry out codes for breeding, technology transfer, and research conduct.

In order to polish up the management system, we should strengthen seed management functions of agriculture department of various levels; clarify the organizations being responsible for seed management; ensure funds for seed management; enhance management on seed management staff members and try to establish a management team with characteristics of honesty, impartiality, good conduct, professional conversance, excellent personality and state-of-the-art equipment. Local governments of various levels should list seed management funds belonging to public service into its financial budget of the same level.

In order to leverage industry associations, we should bring seed industry associations into full play for coordination, services, legal rights, and self-discipline in the development of the modern crop seed industry. Provide more services to seed companies, organize communication and cooperation between companies, company and research institute; enhance industrial self-discipline, regulate company conducts, deploy credit rating evaluation among seed companies, and help them become bigger and stronger.

In order to enhance organizational management, we should establish a coordination working group to promote the development of modern crop seed industry, consisting of Ministry of Agriculture, Central Agricultural Office, National Development and Reform Commission, Ministry of Education, Ministry of Science and Technology, Ministry of Finance, Ministry of Land and Resources, Ministry of Commerce, People's Bank of China, State-owned Assets Supervision and

Administration Commission, State Administration of Taxation, General Administration of Quality Supervision, Inspection and Quarantine, Research Office of the State Council, China's Bank Regulatory Commission, China Insurance Regulatory Commission etc.. The coordination working group is to solve the serious issues that occur during the promotion of the development of modern crop seed industry, and formulate critical policies. Detailed policy measures should be carried out by relevant organizations according to their functions. Provincial governments (autonomous region and municipality) should enhance crop seed industry management and put forward respective layouts and schemes for the development of the modern seed industry.