

## **Strengthening Farmland Quality Building and Management**

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In recent years, the MoA (Ministry of Agriculture) attached high importance, took effective measures and strengthened its work to achieve remarkable results in farmland quality building and management. This played an important role in securing national food safety.

On the one hand, the MoA vigorously promoted farmland quality building. Over the years, agricultural departments conducted a series of major infrastructure projects. Accumulated areas of constructed and transformed farmlands reached nearly 20 million hectares. Since 2005, the MoA organized nationwide soil testing, organic matter raising and formulated fertilizer subsidy program, which covered 93.333 million hectares in 2498 counties, spreading scientific fertilization techniques, raising farmers' consciousness and advancing agricultural production and energy saving. From 2008 to 2013, accumulated central governmental subsidy funds for soil organic matter increase reached 3.2 billion yuan, covering over 6.66667 million hectares. This effectively raised soil organic matter content, boosted crop growing, reduced disease and pests, improved quality of agricultural products and alleviated agricultural non-point source pollution.

On the other hand, the MoA strengthened farmland quality management according to law. Since 2008, the MoA joined hands with other departments for five consecutive years in conducting province level governmental farmland protection target check, underlined governmental responsibility in farmland protection, included farmland protection building into assessment and governments' agenda, and strengthened province level governments' farmland quality protection awareness. In 2009, the MoA and the Ministry of Land and Resources jointly issued two documents that confirmed the permanent protective status of basic farmland and strengthened the balance and management of farmland quality, highlighting requirements and improvements of supplementary farmland quality. On the basis of trial operations, the ministries dispatched working and assessment direction to lay out operating procedures and technical requirements of supplementary farmland

quality check and evaluation. So far, a total of 27 provincial agriculture and land departments established such working norms, and 19 provinces set out or distributed the management documents.

The MoA steadfastly conducted farmland quality monitoring. Since late 1980s, the MoA have conducted long-term farmland quality monitoring at the national, provincial, city and county levels. There are 365 national level farmland quality monitoring sites in 284 counties of 30 provinces across the country, covering 35 main soil types, which took up 57% of all soil types. Meanwhile, 14,000 provincial, city and county level monitoring sites were set up, and preliminary four-level farmland quality monitoring networks were established. Since 2004, the MoA analyzed national farmland quality monitoring data for 10 consecutive years, produced yearly reports on farmland quality, providing important technical support for farmland protection and food safety policies, and organized the writing of 25 standardized technical procedure directions.

The MoA also comprehensively pushed forward county farmland soil fertility surveys and assessments. Since 2005, the MoA conducted county unit farmland soil fertility assessment work, and completed all farming county (2498) assessments, collecting more than 3.7 billion soil samples, analyzing over 30 million items and drawing over 20,000 special pictures. Agricultural counties utilized county level farmland resource management info system to realize standard, effective farmland quality data management. Moreover, the MoA initiated province level farmland soil fertility summarizing assessments and such assessments in major grain production regions.

Furthermore, the MoA conducted farmland quality management law and sustainability research. While starting research on national level farmland quality legislation, the MoA directed provinces to start local legislation, with 11 provinces issuing such guidance and measures. Meanwhile, the research put forward “fertile soil” program to raise the inner quality of farmlands, focusing on agricultural technologies and five technical measures in different regions, building big data platform for farmland quality, effectively improve farmland quality and monitoring capability so as to promote sustainable use of farmlands.