Beijing Research Center for Agricultural Standards and Testing, Beijing Academy of Agriculture and Forestry Sciences

Beijing Research Center for Agricultural Standards and Testing (BRCAST) was founded in 2007, and was approved by the Ministry of Agriculture of China to set up Laboratory of Quality and Safety Risk Assessment for Agro-products (Beijing), Ministry of Agriculture of China in 2011. The BRCAST mainly focuses on the public demands on the agricultural safety and quality supervision, the key technology and standards for the safety of agro-products, farmland environment and agricultural inputs, and the technology of information management on agro-products and farm environment. The BRCAST has been developing a series of new detection techniques and the hardware and software products, which have been applied for the quality control and traceability system for agro-products in some agricultural companies. In recent years, based on the complementary advantages of resources, promoting scientific research, building up research teams and management innovation, the BRCAST has gradually achieved the integrated platform including the testing technology of quality and safety, and risk assessment for agro-products and their extension system, which has been providing technical support and services for the government and public.
The BRCAST focuses on three major research areas as follows:

1. Farmland environmental monitoring technology

The BRCAST mainly focuses on the monitoring of heavy metals and organic pollutants in farmland soil, and also striving to establish a systematic farmland environmental monitoring network to ensure the safety of agricultural production in Beijing.

2. New analytical methods and related agricultural standards
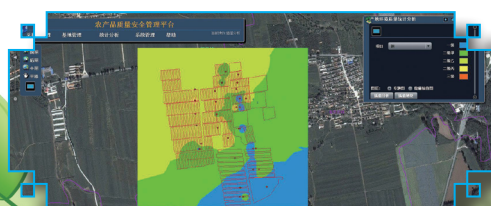
The BRCAST mainly focuses on the development of novel analytical methods for agricultural products and external agricultural inputs, and engaging in risk assessment and monitoring task for the harmful factors related to agricultural products, such as heavy metals, residue of pesticides, plant growth regulator, and microorganisms, etc. Meanwhile, it develops and revises related standards with respect to the quality and safety of agricultural products as well as the agricultural production technology procedures.

3. Development of novel detection methods using information technology

By integrating the technology of analytical chemistry, spectroscopy, biological chemistry and computer science, the BRCAST, joining hands with related enterprises, tries to establish efficient farmland information management system and decision-making consultation system, and also devotes to novel equipment development through the combination of information science and measurement technology.

Research achievements:

Up to 2013, the BRCAST has undertaken totally 40 research projects assigned by the ministries in the China's Central Government and Beijing Municipal Government, respectively, such as National High Technology Research and Development Program of China (863 Program), National Science and Technology Support Project, Special Fund for Agro-scientific Research in the Public Interest. The BRCAST has obtained 14 authorized patents and 140 publications including 24 SCI-indexed articles and 42 EI-indexed articles, and it has also enacted and/or modified 13 national and agricultural standards, registered 9 software copyrights and published 5 books. One research achievement has been given the Second Prize of National Scientific and Technological Award by the Central Government, five research achievements were awarded by the Beijing Municipal Government, and two patents have been commercialized.

Research on rapid detection of pesticide residues

Prof. Wang Jiahua, BRCAST Director, supervises graduates

Inspecting the heavy metal contents of soil in field by rapid equipment

Researchers took experiment sample

Testing instruments owned by the BRCAST

Agro-products quality and safety management system
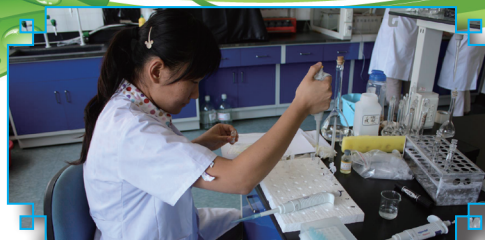

GPS Certificate granted to BRCAST

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