

The Genetic Resources of Tea in Japan: Present and Its Future Ideal State

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< Summary >

There are 6,700 accessions of tea genetic material in Japanese gene banks. They are preserved in the NIVTS (National Institute of Vegetable and Tea Science) and registered in the gene bank of the NIAS (National Institute of Agrobiological Science). These materials are 75% domestic origin and 25% foreign origin. Those of foreign origin are Assam varieties, China varieties and hybrids of Assam and China varieties. These were introduced from more than ten countries, including China, India, Sri Lanka and Myanmar.

It is very important to make clear the characteristics necessary for effective use of genetic resources. The tea varieties of domestic origin show very little variation in characteristics related to resistance to diseases and insects, quality (taste and aroma) and components displaying physiological properties. It is thought to be necessary to add the diversity, by utilizing the accessions from foreign countries, especially China and Southeast Asia to improve the genetic resources of Japan.

Many cultivars for black tea have been developed as crosses between Japanese domestic cultivars and Assam cultivars introduced from India. In recent years, cultivars of foreign origin have been widely used in breeding for increased resistance to mulberry scale and for additional components displaying physiological properties.

Hereafter it is important that Japanese gene banks holding tea resources expand genetic diversity, construct an international network of gene banks, cooperate with researchers in different fields, train new experts in genetic resource science and improve the current accession system.