TEA BREEDING AND CULTIVATION IN KOREA

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ABSTRACT

Although Korea has a long history of tea cultivation and culture, scientific tea cultivation, process, packing, storage, and marketing are not established systematically. Still more, development of a new tea variety by selection and hybridization is still in its elementary stage. In 1998, the acreage was 1,128 ha and the production was 1,417M/T. Because the number of small scale farmhouses increased, the total number of farmhouses increased from 651 in 1993 to 1,390 in 1998. But a tea tree variety has not been developed in Korea yet. Korean green tea has higher total nitrogen, total amino acid and lower tannin than Japanese’s and Chinese’s, suggesting that Korean green tea is more competitive than others. Because the earlier the harvesting time are, the higher the quality is. Therefore, the importance of high quality green tea is dependent on earliness of harvest. Because consumption per capita of tea is increasing steadily, the acreage of cultivation must be increased. Considering the economy of tea compared to other crops, when green tea is sold as fresh leaves, it is much more economical crop than citrus fruits, apple, persimmon, and kiwi fruit. But most people do not notice the economy of tea. Breeding a new tea tree with high quality, yield and resistance to environmental stresses is needed. A Native is endemic to an area, with its origins sometimes going back several hundred years; it is a mixture of types; and it is well adapted to the environment. Therefore, investigations on distribution of native teas, their characters, and selection of superior types must be done. The crossing rates among the different varieties are 13 ~ 50% with 50% crossing rate crossed between native lines of Daewonsa and TTES No.12. However, the crossing rate between native lines
of Daewonsa is 115, suggesting that the used lines at Daewonsa are different genetic individual plants. We have tried to select a superior line from foreign tea varieties, but this breeding method is not so good because of protective law about run off of genetic resources. This is why need strong international corporations among tea breeds in the future.

I. Introduction

It is said that tea tree was first introduced during the regime of King Hungduck, Shilla Dynasty. Since then, tea plant had been cultivated near temples or had grown naturally. It was until 1969 that the opening of large scale tea farm was initiated as a way of special agricultural business. Since then, 1,400 ha of tea farm has been formed and produced 1,500 MT of tea. However, demand has always outstripped supply in Korea. Although the cultivation of tea plants in Korea has a long history, it lags far behind in the development of new kinds and systematic growing method. The reason is that research center for tea was founded in 1992.

Against this backdrop, it is desirable to hold an international symposium on tea with distinguished scholars from China and Japan. In order to develop tea industry in Korea, we have to exert ourselves on keeping tea culture, developing high-quality and disease-resisting tea tree, new methods of tea growing, high-quality tea products, developing new method of storage, and establishing new order in distribution. To this end, there must be strong cooperation between industry, academia and research institutes.

II. History of tea cultivation in Korea

There have been two propositions revolving around the introduction of tea seeds in Korea. One is that in A.D. 48 they were first introduced in Korea by Heo, hwangok from India and planted in Kimhae (Samkukyusa, Karakkukipyun). The other is that in 828 during the regime of King Hungduck, Shilla Dynasty, Daeryum introduced them from China and planted them in Mt. Chiri pursuant to the King's directive. However, according to the Songgoseungjeon of China, it was recorded that drinking tea was initiated from the regime of King Jinheung, Shilla Dynasty and widespread during the regime of Queen Sunduck, Shilla Dynasty. In 653, Kim, Kyogak, a kin to the Shilla Dynasty, planted the tea at Mt. Koohwva in China and it was named to Keumjicha after him.

Tea culture was in its height during the Koryo Dynasty. An institute called