P014

Use of wild corn teosinte to develop flooding-tolerant maize varieties

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Abstract

Teosinte is now known as a wild variety of corn. It is distributed in Central and South America. It is believed that teosinte contains genes for resistance to flooding because of the climate characteristics of the collected countries. Recent studies have shown that teosinte has the ability to form adventitious roots, to develop aerenchyma tissues of teosinte, and the resistance to toxic substances under flooding soil condition. Therefore, development of corn cultivars to cope with climate change and the growing corn at paddy field in Korea are required to introduce the characteristics of teosinte. However, in order to utilize teosinte resources, preconditions must be settled such as photoperiodic responsibility. Also if the preconditions are studied together with the metabolic level studies, the possibility of utilization will be even higher.

Keywords: teosinte, corn, flooding, tolerant

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