Chromosomal localization of genes mediating tolerance to boron in pea (Pisum sativum L.) using molecular markers

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Abstract

A transgenic tobacco with the ability to clear boron from its tissues was developed by introducing the wild tobacco gene for the degradation of boron into tobacco. This gene was isolated from wild tobacco and its expression was detected in the transgenic tobacco lines. The transgenic tobacco lines were then used to study the distribution of boron in the plant and its effect on the growth and development of the plant. It was observed that the transgenic tobacco lines had a lower concentration of boron in their tissues compared to the wild-type tobacco. This suggests that the transgenic tobacco lines may be useful for the development of crops that are tolerant to boron.

Key words: boron, tobacco, transgenic, gene transfer.