

Türkiye'de "İTHAL ÇAY TOHUMU SATIŞLARI" yasaklanmalıdır !!!

Japonya ve Hindistan'da; 1996-98 yılında ilk deneme çalışmalarına başlanan,2002 yılında laboratuvar ortamında yetiştirilen ilk GDO'lu çay bitkilerinin ardından, 2015 yılında *Agrobacterium tumefaciens* bakterisi kullanılarak çay bitkisine, patatesten kitinase (chitinase) enzimi başarı ile aktarılmıştır !

"Meyve alerjisinin" ana nedeni olan kitinase (chitinase) enzimi, Uzak Doğu ve Ekvator bölgelerinde yetiştirilen çaylarda yoğun olarak görülen mantari hastalıklara ("blister blight disease" su kabarcık yanıklığı vb) karşı çay bitkilerine direnç kazandırmaktadır...

Unutulmamalıdır ki, GDO'lu bir tohum; böcekler ve tozlaşma yoluyla doğadaki diğer akrabalarını döllemek suretiyle, bir sonraki generasyonun, genetik yapısını değiştirmektedir...!

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Enhanced resistance to blister blight in transgenic tea (*Camellia sinensis* [L.] O. Kuntze) by overexpression of class I chitinase gene from potato (*Solanum tuberosum*)

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Abstract

Tea is the second most consumed beverage in the world. A crop loss of up to 43 % has been reported due to blister blight disease of tea caused by a fungus, *Exobasidium vexans*. Thus, it directly affects the tea industry qualitatively and quantitatively. *Solanum tuberosum* class I chitinase gene (AF153195) is a plant pathogenesis-related gene. It was introduced into tea genome via *Agrobacterium*-mediated transformation with hygromycin phosphotransferase (*hpt*) gene conferring hygromycin resistance as plant selectable marker. A total of 41 hygromycin resistant plantlets were obtained, and PCR analysis established 12 plantlets confirming about the stable integration of transgene in the plant genome. Real-time PCR detected transgene expression in four transgenic plantlets (T28, C57, C9, and T31). Resistance to biotrophic fungal pathogen, *E. vexans*, was tested by detached leaf infection assay of greenhouse acclimated plantlets. An inhibitory activity against the fungal pathogen was evident from the detached leaves from the transformants compared with the control. Fungal lesion formed on control plantlet whereas the transgenic plantlets showed resistance to inoculated fungal pathogen by the formation of hypersensitivity reaction area. This result suggests that constitutive expression of the potato class I chitinase gene can be exploited to improve resistance to fungal pathogen, *E. vexans*, in economical perennial plantation crop like tea.