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## Transgenic Peppers by Disease Defense Related *CaWRKY114*

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### Objectives

To develop disease resistant peppers against pathogens

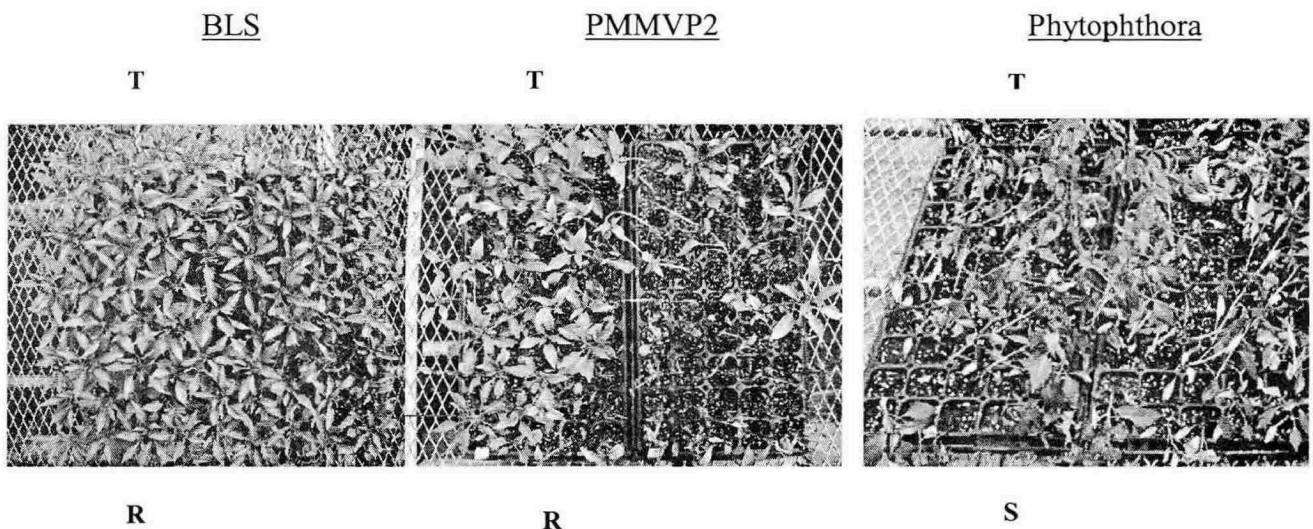
### Materials and Methods

Materials: Commercially important inbred lines

Methods: *Agrobacterium*-mediated transformation by callus induced transformation (CIT) & callus-mediated shoot formation (CMSF).

### Results and Discussion

We transformed peppers with *CaWRKY114* known as a transcription factor present in plant only and related to plant pathogen resistance. Several independent T<sub>0</sub> plants were transformed with about 1% transformation rate and around 500 T<sub>1</sub> plants were tested for the resistance level with several pathogens. Transgenic peppers were resistant to BLS and PMMVP2, but not to Phytophthora. Currently, highly resistant plants to BLS and PMMVP2 were selected and self-pollination for the next generation is underway.



T: Transformed; N: Non-transformed; R: Resistant; S: Susceptible