



## OP1: CUCUMBER

**P0023 GENETIC MAPPING OF ANGULAR LEAF SPOT RESISTANCE IN CUCUMBER  
(CUCUMIS SATIVUS L.)**

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**1 Full text**

One of the important diseases of cucumber is angular leaf spot (ALS) caused by *Pseudomonas syringae* pv. *lachrymans*. Increased occurrence of this disease in open-field cucumber production caused significant losses over the last few years. ALS symptoms may vary depending on the virulence of bacteria strain, the host, and the environmental conditions. The aim of this study was to map major gene(s)/quantitative trait loci (QTLs) controlling ALS resistance in pickling cucumber. Previous studies confirmed that cucumber line Gy14 shows resistance and line B10 susceptibility to ALS. Recombinant inbred lines (RILs) mapping population was developed from the cross Gy14xB10. RILs were tested under phytotron conditions for type of ALS symptoms (presence/absence of chlorotic halo) and resistance (disease severity index). Based on SSR analysis 92 RILs were used for DArT-seq genotyping and linkage map construction. Developed map contained 546 markers in seven linkage groups, spanning 707.1 cM with 1.3 cM on average between adjacent markers. Monogenic inheritance of chlorotic halo, which is ALS symptom differentiating parental lines, has been confirmed and the locus was located on linkage group 5. Major QTL associated with ALS resistance was also located on linkage group 5. This study will facilitate the development of molecular markers and cloning of ALS resistance genes in cucumber.