

## ABSTRACT

### DETERMINATION OF CULTURAL AND PATHOGENIC CHARACTERISTICS OF *Leucostoma* spp. ISOLATES COLLECTED FROM CHERRIES IN THE AEGEAN REGION

Ethem YILMAZ

M. Sc. Thesis, Department of Plant Protection

Supervisor: Assoc. Prof. Dr. Ömer ERİNCİK

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*Leucostoma* canker is one of the important diseases of cherry which causes tree death. The disease is caused by different *Leucostoma* species, each of which has its own certain distinctive cultural and pathogenic characteristics. No study has been previously conducted in details on *Leucostoma* canker of cherry in Turkey. The objective of this study is determination of cultural and pathogenic characteristics of *Leucostoma* spp. isolates collected from cherries in certain provinces of the Aegean Region. Under this objective, bark samples from cankered cherry trees were collected from the orchards of İzmir, Manisa, Afyon, Denizli and Aydın Provinces. Out of 503 samples, *Leucostoma* isolates were recovered from 318 samples. *Leucostoma* canker was found in all provinces. As a total of 150 *Leucostoma* isolates were evaluated for their mycelial growth, colony color and shape, picnidia size and ability to grow at 37°C. Except lobate colony formation, all isolates exhibited similar cultural characteristics that were reported for *L. cincta*, however, it has been suggested that using of molecular methods should be considered to obtain more reliable species identification. All isolates were found to be pathogenic on cherry and they varied in their degree of virulence. Isolates also caused canker lesions on various cultivars of almond, plum, peach and apricot in the pathogenicity tests, which indicated lack of host specialization of the pathogen.

**Key words:** *Leucostoma* canker, *Leucostoma* spp., *Leucostoma persoonii*, *Leucostoma cincta*, cherry, stone fruits.