
Lac-Balsam

Platanus orientalis

Pinus eldarica

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(Moniliaceae)

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// : // :

(E-mail:khorasan@chamran.ut.ac.ir)

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Minitab, SAS

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PDA

Agar

PDA

PDA

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Moniliaceae

(P=0.0003)

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PDA

(Hyph*tip)

PDA

| | | (mm) | |
|--|----|------|-----------------|
| | * | | Moniliaceae 1 |
| | ** | | 0 |
| | | | Moniliaceae 1 |
| | | | Moniliaceae 1 |
| | | | Hypholmycetes 2 |
| | | | 0 |
| | | | Hypholmycetes 2 |
| | | | Moniliaceae 1 |
| | | | Hypholmycetes 2 |
| | | | Moniliaceae 1 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | Hypholmycetes 2 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | Hypholmycetes 2 |
| | | | Dematiaceae 3 |
| | | | Moniliaceae 1 |
| | | | Hypholmycetes 2 |
| | | | 0 |
| | | | Hypholmycetes 2 |
| | | | Hypholmycetes 1 |
| | | | Moniliaceae 1 |
| | | | Hypholmycetes 2 |
| | | | Moniliaceae 1 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | 0 |
| | | | Moniliaceae 1 |
| | | | Hypholmycetes 2 |

| | | (mm) | |
|--|--|------|--------------------------------|
| | | | Hypholmycetes 2 |
| | | | Moniliaceae 1 |
| | | | Hypholmycetes 2 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | Moniliaceae 1 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | Moniliaceae 1 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | Moniliaceae 1 |
| | | | Moniliaceae 1 |
| | | | Hypholmycetes 2 |
| | | | 0 |
| | | | Moniliaceae 1 |
| | | | Hypholmycetes 2 |
| | | | Hypholmycetes 2 |
| | | | Moniliaceae 1 |
| | | | Moniliaceae (Philalosporae) |
| | | | 0 |
| | | | Dematiaceae 3 |
| | | | Hypholmycetes 2 |
| | | | Hypholmycetes 2 |
| | | | 0 |
| | | | Hypholmycetes 2 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | Dematiaceae 3 |
| | | | 0 |

(

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**

(

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*

| | | (mm) | |
|--|--|------|---------------------------------|
| | | | Moniliaceae (Paecilomyces 1) |
| | | | 0 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | 0 |
| | | | 0 |
| | | | Hyphomycetes 2 |
| | | | 0 |
| | | | 0 |
| | | | Moniliaceae 1 |
| | | | Hyphomycetes 2 |
| | | | 0 |
| | | | 0 |
| | | | 0 |
| | | | 0 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | 0 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | Moniliaceae 1 |
| | | | 0 |
| | | | 0 |
| | | | Hyphomycetes 2 |
| | | | 0 |
| | | | 0 |
| | | | Dematiaceae 3 |
| | | | 0 |
| | | | 0 |
| | | | 0 |
| | | | Hyphomycetes 2 |

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| | N | Mean | Std Dev | Min | Max |
|--|---|------|---------|-----|-----|
| | | / | / | | |

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| | DF | Mean | Std Dev |
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| () | | / | / |

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|--|-------|---|--|
| | () / | / | |
| | () / | / | |
| | (/) | / | |

Spearman

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($r_s =$ /

(Monilicaeae

| | DF | SS | MS | F | Pr>f |
|--|----|----|----|---|------|
| | | / | / | / | / |
| | | / | / | | |

CV= /

| | DF | Mean | Std Dev |
|-----|----|------|---------|
| () | | / | / |
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| | | |
|--|-------|--|
| | | |
| | () / | |
| | () / | |

Spearman

| | N | Mean | Std Dev | Min | Max |
|--|---|------|---------|-----|-----|
| | | / | / | | |

/ /

| | DF | SS | MS | F F | Pr>f |
|--|----|----|----|--------|------|
| | | | | | |
| | | | / | | |

CV= /

| | DF | Mean | Std Dev |
|-----|----|------|---------|
| () | | | / |
| () | | / | / |

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Pinus eldarica

Platanus orientalis

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Effects of Lac-Balsam on Fungal Contamination in Plane Tree and Pine

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Abstract

To study the effect of lac-balsam preservative on preventing fungal contamination of trees, 30 trees of *Platanus orientalis* and 16 trees of *Pinus eldarica* at the faculties of agriculture and natural resources area (Karaj, Iran) were selected as sample. These samples were selected from identical environment and growth conditions, with the same age, height and diameter of trees. Two circular pieces of 6cm-diameter were cut from each tree stem at the breast height (i.e., 1.5m from the ground) till the cambium layer was reached, removing the bark. One of these pieces was treated with lac-balsam preservative, but the other one was left on the stem without any chemical treatment (as control). Samples were selected and cut during the second half of March 2001 (beginning of plant growth), and samples were collected back from the stems in mid November 2001 (end of plant growth).

Results showed that from the standpoint of fungal contamination, there was a significant difference between the two species, where the plane tree was found more sensitive (susceptible) to the fungal contamination. Also, there was a significant relation between the tree species and fungi species, e.g. Moniliaceae was observed more often in plane tree. It was also found that type of cutting (open and close) would not determine the level of fungal contamination.

Keywords: Cambium, Lac-Balsam, Fungal contamination, Plant growth, Plane tree, Pine, Necroses, Mechanical injuries, Trimming.

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