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Reducing infection and secondary inoculum of *Phytophthora ramorum* on *Viburnum tinus* roots grown in potting medium amended with *Trichoderma asperellum* isolate 04-22

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1 **Reducing infection and secondary inoculum of *Phytophthora ramorum* on *Viburnum tinus***
2 **roots grown in potting medium amended with *Trichoderma asperellum* isolate 04-22**

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15 **Abstract**

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17 *Phytophthora ramorum* is a concern of the ornamental nursery business because it is implicated
18 in the movement on ornamental plants such as rhododendron and viburnum. Since there is a soil
19 phase that infects the roots, above-ground symptoms are not often manifested and easily
20 detected. Government agencies require that a *P. ramorum*-positive nursery be placed under
21 some type of quarantine until it can demonstrate that it has mitigated *P. ramorum*. Typical
22 methods of mitigation are often expensive, harmful to the environment, and impractical.
23 Biological control using *Trichoderma asperellum* isolate 04-22 (Ta 04-22) has been

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