

Supplementary material

Screening of Antimicrobial Activity of Essential Oils against Bovine Respiratory Pathogens - Focusing on *Pasteurella multocida*

Doris Bismarck¹, Jens Becker², Elisabeth Müller¹, Vera Becher³, Lisa Nau³,
Philipp Mayer³

Affiliations

¹Laboklin GmbH & Co.KG, Bad Kissingen, Germany

²Clinic for Ruminants, Vetsuisse-Faculty, University of Bern, Bern, Switzerland

³SaluVet GmbH, Bad Waldsee, Germany

Correspondence

Dr. Doris Bismarck

Laboklin GmbH & CO.KG

Steubenstraße 4

97688 Bad Kissingen

Phone: +49 971 72020

Fax: +49 971 68546

bismarck@laboklin.com

Figure 1S

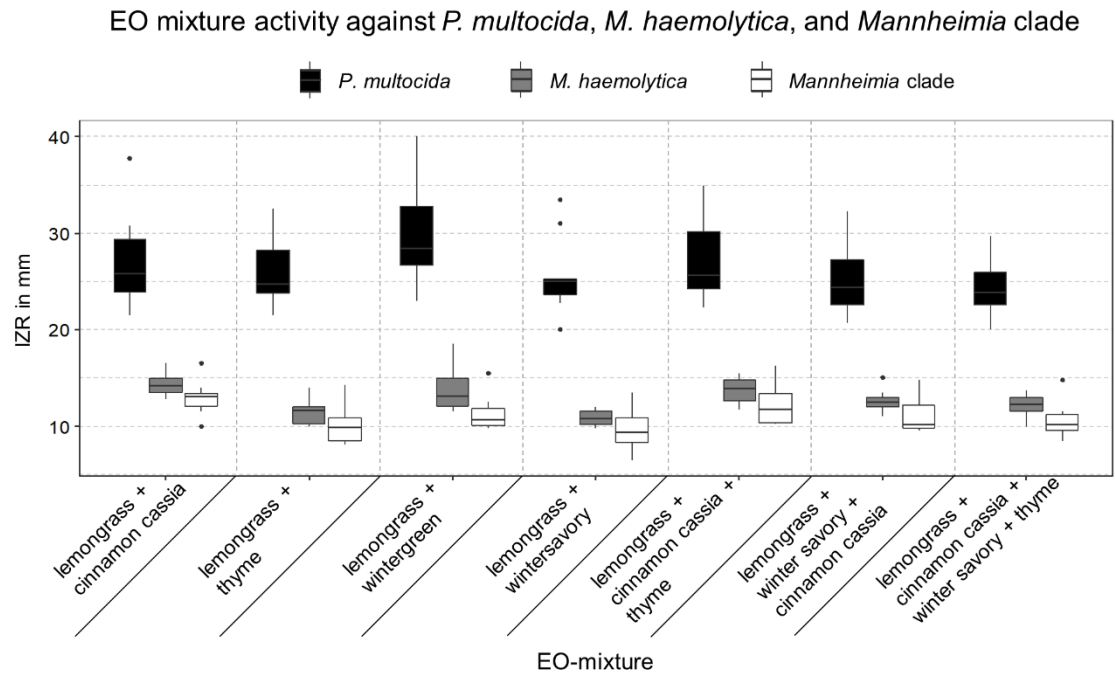


Fig. 1S Depicted is the inhibition zone radius (IZR) in mm of EO mixtures against *P. multocida* (n = 10), *M. haemolytica* (n = 10), and *Mannheimia* clade (n = 10). Multiple comparison with Benjamini-Hochberg adjustment of the main effects conducted after two-way ANOVA ($F = 266.45$, $df = 2, 189$, $p < 0.001$) revealed *P. multocida* was more susceptible against the EO mixtures than *M. haemolytica* ($p < 0.001$) and *Mannheimia* clade ($p < 0.001$). *M. haemolytica* was more susceptible than *Mannheimia* clade ($p < 0.001$).

Figure 2S

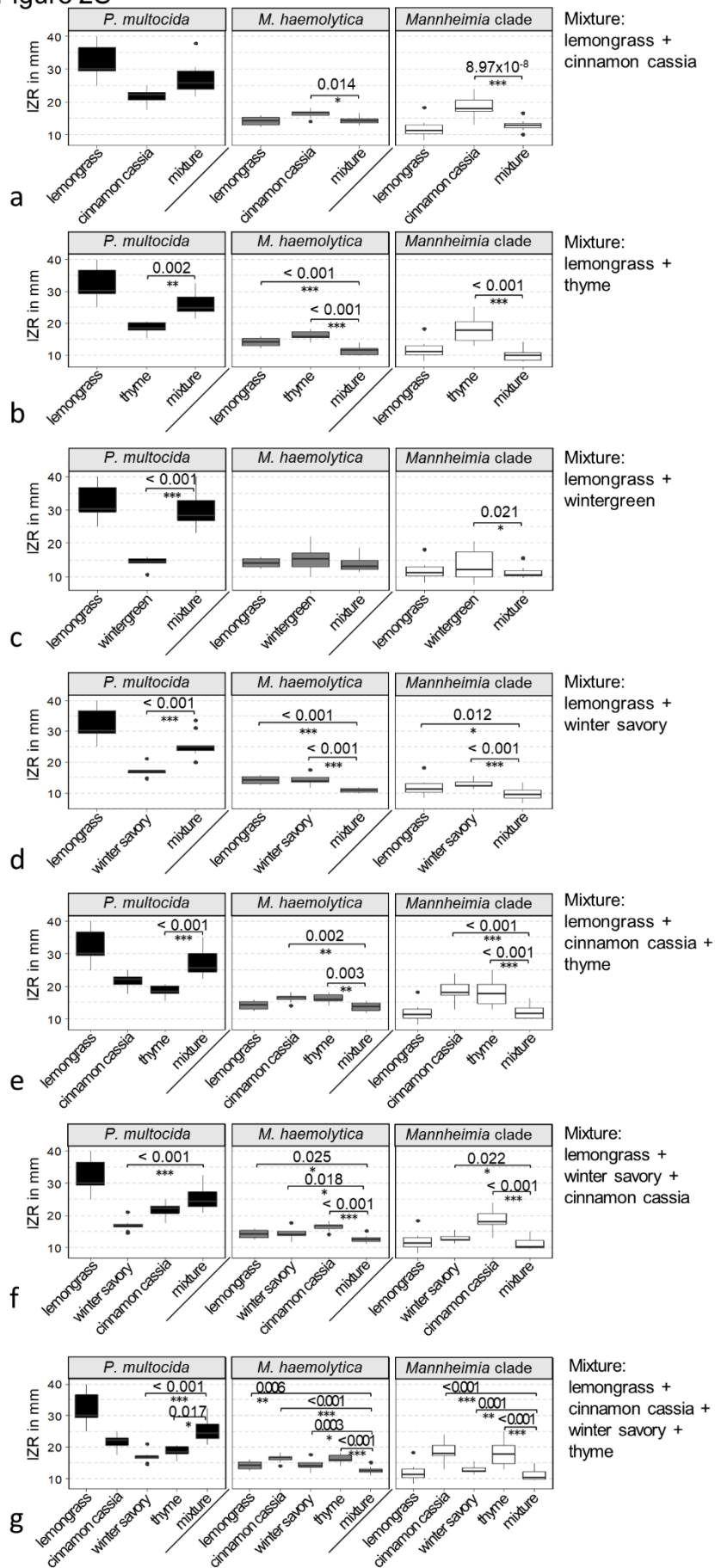


Fig. 2S Depicted is the inhibition zone radius (IZR) in mm of EO mixtures and their single EO constituents against *P. multocida* (n = 10), *M. haemolytica* (n = 10), and *Mannheimia* clade (n = 10). Only statistically significant results of comparison of antimicrobial activity of the EO mixture against single EO constituents are given. Conducted was a two-way ANOVA (interaction between the EO and bacterial isolate: $F = 13.22$, $df = 22, 324$, $p < 0.001$) and post hoc pairwise comparison with Benjamini-Hochberg adjustment. P values of statistically significant differences and indicating asterisks (* p value ≤ 0.05 , ** p value ≤ 0.01 , *** p value ≤ 0.001) are stated with the significance bars.