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ANTIFUNGAL ACTIVITY OF ESSENTIAL OILS IN CONTROL OF THE PLANT PATHOGEN *Rhizoctonia solani*/Atividade antifúngica de óleos essenciais no controle do fungo fitopatogênico *Rhizoctonia solani*.

J.G. OLIVEIRA FILHO<sup>1</sup>, A.L.B. DIAS<sup>1</sup>, M.M.C.T.SILVA<sup>3</sup>, L.E.L. REIS<sup>1</sup>, I.P.B. DEUS<sup>1</sup>, A.C.F. VALADARES<sup>1</sup>, C.C.F. ALVES<sup>1</sup>, M.B. EGEA<sup>1</sup>, E.R. SILVA<sup>2</sup>, H.A.S. FALCÃO<sup>2</sup>. Federal Institute of Education, Science and Technology Goiano, Campus Rio Verde <sup>2</sup>Federal Institute of Education, Science and Technology Brasília, Campus Planaltina <sup>3</sup>Federal Institute of Education, Science and Technology Goiás, Campus Uruaçu E-mail: josemar.gooliver@gmail.com

The fungus *Rhizoctonia solani* is one of the pathogens of greatest importance in the soil, causing losses in many economically important crops, such as soybeans and beans, causing root rot in the early seedling development and reduction in the vigor and seed germination. Currently the use of alternative methods for the control of diseases and pests is a recognized and necessary practice. In this context, we evaluated the antifungal potential of volatile oils extracted from Indian carnation leaves, the fruits of *Xylopiya aromatica* and residue orange peel against one isolate of *Rhizoctonia solani*. The volatile oils were extracted by hydrodistillation with the aid of a Clevenger apparatus. The antimicrobial activity was evaluated *in vitro* by means of the agar diffusion test. The classification of the antimicrobial activity was performed based on the size of inhibition zones. The results indicated that the volatile oils of the Indian carnation, *Xylopiya aromatica* fruit and orange peel residue showed antifungal activity against the isolate, and the classification of inhibition for the Indian carnation volatile oil as high for the concentration 100% 50% and 25% and moderate to 12.5% and 6.25%, with inhibition zone formation 32.5, 20.5, 18, 14 and 12 mm respectively. As for the volatile oil of *Xylopiya aromatica* fruits, the classification of inhibition was considered high for the concentration 100% and 50%, moderate for 25%, and low for 12.5% and 6.25% by inhibition halo formation of 18, 15, 11, 8 and 7 mm, respectively. The activity of the volatile oil extracted from orange peel residue was considered moderate for 100% concentration, low for concentrations of 50%, 25% and 12.5% and non-existent for 6.25% with inhibition zone formation 11, 8, 7 and 7mm, respectively. It follows, then, that the volatile oils tested showed inhibitory activity *in vitro* against the studied fungus, presenting as potential alternatives for *in vivo* studies.

**Key words:** Damping-off, *Xylopiya aromatica*, soybean, residue, orange peels.