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## Effect of Pure Anethole and Synergistic Interaction of Anethole with Different Essential Oils- Potential Alternative Biocontrol Products Against Plant Pathogens

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The development of natural protective agents against plant fungal pathogens as alternatives to chemical fungicides is currently in the spotlight all over the world. In the present investigation, antifungal activities of anethole alone, as well as synergism of its possible double combinations with nine other essential oils (EOs) were investigated. For determination of antifungal activity, a disk diffusion and a broth microdilution method were used.

The data reported in this study show that EOs exhibited promising antimicrobial activity against tested fungi and they might provide an alternative way to fight with plant fungal pathogens, so they can be considered safe for plants because originate from them. Generally, it is possible to recommend the use of EOs for replacement of synthestic fungicides in agriculture. The results of this study provided an important contribution to development of potential ingredients for natural antimicrobial agents.

Keywords: essential oils, fungistatic, fungicidal, phytopathogens