



***In-vitro* RESPONSE OF DIFFERENT FUNGICIDES AGAINST *Mauginiella scaettae* CAUSING DATE PALM INFLORESCENCE ROT IN TAFILALET OASIS IN MOROCCO**

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AUTHORS' CONTRIBUTIONS

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ABSTRACT

The inflorescence rot is a very dangerous cryptogamic disease that is prevalent in all phoeniculture regions and causes heavy economic losses. The identification and characterization of the causal agent is a key step to tackling this disease, and such studies are very scanty in Morocco. This work was carried out in Darâa Tafilalet region South-East Morocco during 2020-2021 to isolate and identify the fungi that cause inflorescence rot on date palm and to try to combat the disease with various fungicides. We collected 48 infected samples from different varieties of date palm. The isolation results revealed that *Mauginiella scaettae* is the primary causal agent of date palm inflorescence rot at all sites investigated. In terms of *in vitro* experiments, we examined seven fungicides (difenoconazole, boscalid-pyraclostrobin combination, thiophanate-methyl, copper oxychloride, tribasic copper sulfate, copper sulfate, and wettable sulfur) based on their antifungal activity against the causal agent, *M. scaettae*. Data on the effects of these fungicides on pathogen mycelial growth, spore germination, and sporulation show that difenoconazole, the combination Boscalid-Pyraclostrobin, and Thiophanate-methyl totally controlled *M. scaettae* at only 25% of the recommended dose, whereas Copper Oxychloride, Tribasic Copper Sulfate, and Copper Sulfate had a significant inhibitory effect on all three stages. Wettable sulfur was the least effective.

Keywords: Date palm; *Mauginiella scaettae*; fungicide; tafilalet.

1. INTRODUCTION

The date palm (*Phoenix dactylifera* L.) is a strategic crop and source of income for most local populations in the arid regions of the Middle East and North Africa (MENA) [1].

In addition, it plays a screening role by protecting oases from desert influences and creates a favorable microclimate for the development of underlying crops [1]. However, this culture is exposed to many diseases and pests that hinder its development and extension [2]. The severity of damage caused by these enemies

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