



Evaluation Modified Integrated Management Program of Mango Powdery Mildew Disease

**Sahar S. Abdullah Sharkawy¹ Taha N. Maklad² Hisham Abdel Moneim Mohamed^{3,4}
Mohamed Munir^{5,6} Mohamed Salah El Din Fleifel⁷**

1. Fruit Diseases Research Department, Plant Pathology Research Institute, Agricultural Research Center, Giza, Egypt
2. Tropical Fruits Research Department, Horticultural Research Institute, Agricultural Research Center, Giza, Egypt.
3. Seed Research Department, Plant Pathology Research Institute, Agricultural Research Center , Giza, Egypt.
4. Date Palm Research Center Excellence, King Faisal University, Al-Ahsa, Saudi Arabia
5. Precision Crop Production Division, Newbury, United Kingdom.
6. Date Palm Research Center Excellence, King Faisal University, Al-Ahsa, Saudi Arabia
7. Integrated Control Research Department, Plant Pathology Research Institute, Agricultural Research Center, Giza, Egypt.

Email: sharkawyahmed054@gmail.com

Received: 26/12/2024 **Accepted:** 7/1/2025 **Published:** 31/3/2025 **pages:** 14 – 31

Abstract

This study was done through four years from 2021 to 2024 under two agro-ecological zones, Mansoura (Dakahlia governorate) and Rashid (Beheira governorate) on Owes Mango variety. In the first season (2021), five different fungicides were repeated for 3 spraying, alone,(original farm fungicides applications), after symptoms appearance in 15 February. The period between the first spray and the next was tested as every 7 or 10 days. The best time between two applications was once every 7 days. Amistar-top fungicide revealed the most efficiency to decrease Mango powdery mildew (30 and 25%) at Rashid and Mansoura locations. In the second season (2022), combination between the best farm fungicides and the modified tested fungicides, eight fungicides were applied as modified chemical control (both of chemical fungicides original farm or tested chemical control programs). Both of Belize and Amisto 25% fungicides decreased powdery mildew disease severity (33%) on leaves and (49 and 48%) on flowers at Rashid. In the third season (2023) combination between systemic and contact fungicides modified chemical control was tested. At the end of modified chemical control program which gave (14 and 8 %), compared with control treatment which recoded (100 and 100%) disease severity on flower and fruit stage at both of Rashid and Mansoura locations. In the last, season, (2024) modified integrated pest management control was done at first of, November, as

combination between, systemic, contact and fertilizer. Finally results showed that modified integrated control program was the most effective on mango powdery mildew either on foliar or fruits and flowers at the two locations compared with control treatment. Finally, **modified tested integrated control** produced (60, and 68.60 compared with untreated control treatment which didn't produce yield (00 and 00Kg/tree), at both Rashid and Mansoura locations, respectively

Keywords: Evaluation, Modified Integrated Management Program, Mango Powdery Mildew Disease.