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Visual Storytelling Reconstruction in AI-Generated Video Ads

Afaf F. Shahba
Spinning, and Weaving Dept., Faculty of Applied Arts, Helwan University, Cairo, Egypt, afaffarag1999@yahoo.com
M. K. EL Bisi
Cellulosic Fiber Preparation and Finishing Department, Textile Research and Technology Institute, National Research Center, 33 El-Buhouth St., 12622 Dokki, Giza, Egypt. manalelbisi22@yahoo.com
S.D. Abou-Hussein
Agricultural & Biological Research Institute, National Research Centre (NRC), 33 El-Buhouth St., 12622 Dokki, Giza, Egypt
Aya E. M. Ahmed
Spinning, and Weaving Dept., Faculty of Applied Arts, Helwan University, Cairo, Egypt, Aya_Elsayed@a-arts.helwan.edu.eg

Abstract:
Crop protection remains one of the major challenges faced by farmers in the agricultural sector. Agrotextiles such as sunscreens, bird nets, mulch mats, hail protection nets, harvesting nets, and windbreaks are widely used to mitigate such issues. Pre- and post-harvest diseases are the primary causes of fruit and vegetable crop losses. This study aimed to evaluate certain eco-friendly products for their potential to reduce these diseases. In vitro tests were conducted to assess the antifungal activity of three organic acids—salicylic, sorbic, and benzoic acids—against Penicillium digitatum, Botrytis cinerea, and Colletotrichum gloeosporioides at concentrations of 0.0%, 2.5%, and 5.0%. At 5.0%, inhibition zones exceeded 11.0 mm, 10.0 mm, and 9.0 mm for salicylic, sorbic, and benzoic acids, respectively. Additionally, four salts—potassium bicarbonate, sodium benzoate, sodium bicarbonate, and potassium sorbate—were tested at the same concentrations. Sodium bicarbonate at 5.0% produced the largest inhibition zones (11.0, 9.0, and 8.0 mm for P. digitatum, B. cinerea, and C. gloeosporioides, respectively), while the other salts showed moderate effects.

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