

Disease Management of Flowers Grown Under Protected Cultivation

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Abstract

This paper addresses numerous activities that affect flowers grown in protected areas, such as greenhouses and plastic tunnels, to control plant diseases. The key diseases that are common in protected horticulture are then identified crop wise. This section primarily discusses host plant symptoms and control measures that are currently available to prevent infection and development of each disease. Finally, a prospective evaluation of plant disease control in protected horticulture will also be discussed.

Keywords: Protected cultivation, flowers, diseases, Symptoms, management

1. Introduction

The word ‘protected horticulture’ refers to any means used to protect horticultural crops cultivated from environmental stress. Therefore, the definition explicitly refers to climate control aimed at: (1) mitigating the impact of meteoric events such as rain, hail and snow, (2) minimizing the magnitude of environmental pressures such as severe temperatures and irradiance, and (3) changing one or more environmental parameters to improve crop growth and yield, e.g., CO₂ concentration, light intensity, or day-length (Zitter *et al.* 2010) For instance, plant pathogens that prefer low temperatures and high humidity proliferate during rainy days and nights in winter, so a greenhouse may easily become humid. Special care is therefore necessary in order to manage pests in controlled conditions. Presently, progressive farmers are adopting commercial protected cultivation of high value vegetables and flowers (Maitra *et al.* 2020). The general practice to manage the diseases is application of agricultural