

Abstract

Increasing loss of conventional fungicides due to pathogen resistance and general unacceptability in terms of public and environmental risk have favoured the introduction of integrated pest management (IPM) programmes. Induction of natural disease resistance (NDR) in harvested horticultural crops using physical, biological and/or chemical elicitors has received increasing attention over recent years, it being considered a preferred strategy for disease management. This article reviews the enhancement of constitutive and inducible antifungal compounds and suppression of postharvest diseases through using elicitors. The effect of timing of pre- and/or postharvest elicitor treatment and environment on the degree of elicitation and the potential for inducing local acquired resistance, systemic acquired resistance and/or induced systemic resistance to reduce postharvest disease is discussed. The review highlights that more applied and basic research is required to understand the role that induced NDR can play in achieving practical suppression of postharvest diseases as part of an IPM approach.