BÖLÜM 3

FUSARIUM FUNGUSLARININ İKİNCİL METABOLİTLERİ VE BİYOAKTİVİTELERİ

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GİRİŞ

Bitki hastalıkları, funguslar, bakteriler, virüsler, protozoalar ve bitki paraziti nematodlar gibi çeşitli patojenlerin etkisiyle ortaya çıkmakta ve tarımsal üretimde önemli kayıplara neden olmaktadır (1). Bu patojenlerin yol açtığı hastalıklar; tahıllar, sebzeler ve endüstriyel bitkiler gibi temel tarım ürünlerinin verimliliğini olumsuz yönde etkileyerek, dünya genelinde yıllık ortalama %13–22 oranında ürün kaybına yol açmaktadır (2). Nitekim Savary et al. (3), hastalık ve zararlılar nedeniyle meydana gelen küresel verim kayıplarını; buğdayda %21,5 (aralık: %10,1–28,1), pirinçte %30,0 (aralık: %24,6–40,9), mısırda %22,5 (aralık: %19,5–41,1), patateste %17,2 (aralık: %8,1–21,0) ve soya fasulyesinde %21,4 (aralık: %11,0–32,4) olarak tahmin etmektedir.

Bitki hastalıkları yalnızca doğrudan verim kaybına yol açmakla kalmayıp, aynı zamanda tarım ürünlerinin kalite ve piyasa değerini azaltmakta; üretim sürecinde kullanılan girdilerin ve işçilik maliyetlerinin artmasına neden olarak çiftçilerin gelir düzeyini ve geçim kaynaklarını da olumsuz yönde etkilemektedir

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ihtiyaç duyulmaktadır. Ayrıca, *Fusarium* metabolitlerinin biyolojik işlevleri, moleküler etki mekanizmaları, yapı-aktivite ilişkileri, biyosentez süreçleri ve bu süreçlerin düzenlenmesi alanlarında daha kapsamlı çalışmalar yapılmalıdır. Bu alanlardaki gelişmeler yalnızca yeni ve biyolojik açıdan etkili bileşiklerin keşfini hızlandırmakla kalmayacak, aynı zamanda *Fusarium* funguslarının fizyolojik, ekolojik ve taksonomik açıdan daha iyi anlaşılmasına da katkı sağlayacaktır.

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