BÖLÜM 9

TOPRAKSIZ MAVİYEMİŞ (*Vaccinium corymbosum L.*) YETİŞTİRİCİLİĞİNDE BİTKİ BESLEME ÇALIŞMALARI

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GİRİŞ

Maviyemiş (*Vaccinium* spp.), içerdiği antosiyaninler, vitaminler, antioksidanlar ve diğer yararlı bileşenler sayesinde yüksek besin değerine sahip bir meyvedir (1). Küresel ölçekte sağlıklı gıda üretiminin öneminin artmasıyla birlikte, maviyemiş meyvesi değerli bir ürün olarak öne çıkmaktadır (2). Nitekim 2024 yılında yayımlanan bir rapora gör1e yetiştiricilik 248.548 hektar alana yayılmış, toplam üretim ise 1.860.080 tona ulaşmıştır (3). Bununla birlikte, dünya yüzeyinin %47'den fazlasını kaplayan kireçli ve yüksek pH'lı toprakların maviyemiş yetiştiriciliği için elverişsiz oluşu, uygun yetiştirme alanlarını sınırlandırmaktadır (4). Bu kısıtlar, özellikle yetiştiriciliğe uygun olmayan topraklara sahip bölgelerde modern üretim tekniklerine olan yönelimi hızlandırmış ve substrata dayalı topraksız tarım sistemleri hızlı bir şekilde yaygınlaşmıştır (4,5).

Geleneksel tarımda kullanılan pek çok yöntem, belirli uyarlamalarla topraksız tarım sistemlerine uygulanabilse de iki sistem arasındaki temel farklılıklar dikim sıklığı, sulama düzeni ve besin yönetimi gibi bileşenlerde belirginleşmektedir (5,6). Topraksız tarım, birim alandan en yüksek verimi hedefleyerek daha yüksek dikim yoğunluklarına (4.170–5.500 bitki/ha) olanak tanımaktadır (7).

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oynamaktadır. Dolayısıyla, gübreleme stratejileri ile substrat seçiminin entegre bir yaklaşımla değerlendirilmesi, sağlıklı bitki gelişimi ve yüksek kaliteli ürün elde edilmesi açısından kritik öneme sahiptir.

Literatürde yapılan çalışmaların büyük bir kısmı topraklı koşullara odaklanmış olup, topraksız sistemlerde gübreleme ve besin yönetimine ilişkin bilgiler sınırlıdır. Bu nedenle, topraksız tarımda besin yönetiminin etkinliğini artırmaya ve sistemlerin bitki gelişimi ile meyve kalitesi üzerindeki etkilerini ortaya koymaya yönelik daha kapsamlı araştırmalara ihtiyaç duyulmaktadır. Kullanılacak besin kaynaklarının doğru form, doz ve zamanlamayla uygulanması, verim ve kaliteyi maksimize etmenin yanı sıra bitki sağlığının korunmasına da katkı sağlayacaktır.

Gelecekte yürütülecek çalışmaların, topraksız sistemlerde kullanılan besin çözeltisi formülasyonlarının optimize edilmesine odaklanması gerekmektedir. Bu doğrultuda belirlenecek gübreleme stratejileri hem verimli hem de sürdürülebilir üretim modellerinin geliştirilmesine olanak sağlayacaktır. Sonuç olarak, topraksız tarım uygulamalarına yönelik bilimsel temelli araştırmalar, maviyemiş yetiştiriciliğinin gelecekte daha yaygın ve ekonomik olarak uygulanabilir bir üretim modeli haline gelmesine önemli katkılar sunacaktır.

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