BÖLÜM 6

TOPRAK SUYU

Seval SÜNAL KAVAKLIGİL[1]

Yaşamın kaynağı olan su biyolojik, kimyasal ve fiziksel süreçlerin gerçekleşmesinde oldukça önemli bir rol oynar. Toprak-su etkileşimleri toprakların ekolojik işlevlerinde, toprak oluşum süreçlerinde, minerallerin ayrışmasında, organik madde dekompozisyonundan, yeraltı sularının kirlenmesine kadar birçok süreçte etkili olmaktadır. Toprak su içeriği ve suyun toprakta hareketi de tarım ve orman ekosistemlerinde son derece önemlidir. Toprak çözeltisinde mineral tuzlar ve organik bileşikler çözünmüş halde bulunur; buna rağmen toprak sıvı fazı genel olarak toprak suyu olarak tanımlanır (1). Bitki gelişiminde son derece etkili olan birçok toprak özelliği de toprak su içeriği tarafından etkilenmektedir. Bitkisel tohumların çimlenebilmesi ve çimlenme sonrası bitki gelişim dönemi boyunca toprak suyunun optimum seviyede bulunması gerekmektedir. Toprak suyu ayrıca toprakta meydana gelen birçok fiziko-kimyasal süreçler, topraktaki mikroorganizma faaliyetleri ve havalanma kapasitesi üzerinde de etkili olmaktadır (2).

İklim değişikliğinin gelecekte su kaynakları üzerine önemli etkilerinin olacağı beklenmektedir. Bu sebeple, toprakta suyu miktarını bilmek su bütçesi çalışmalarında, su amenajmanının planlanmasında ve gıda üretiminin artırılmasında oldukça önemli bir faktördür.

[1] Dr. Öğr. Üyesi, Çankırı Karatekin Üniversitesi, Orman Fakültesi, sevalsunal@karatekin.edu.tr, ORCID iD: 0000-0002-0560-0086
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planlamasında toprak suyu verilerinin doğru modellenmesi büyük önem taşır. Bu nedenle, toprak suyu sadece tarımsal üretim için değil, aynı zamanda çevresel sürdürülebilirlik ve doğal kaynak yönetimi açısından da stratejik bir bileşen olarak değerlendirilmelidir.

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