

BÖLÜM 14

GIDA KATKI MADDELERİ VE KİMYASAL KALINTILARIN GIDA GÜVENLİĞİ AÇISINDAN ÖNEMİ

Tuncer ÇAKMAK¹
Fadime TONBAK²

1. Giriş

Çevresel kirlenici unsurlar, gıda proseslerinde oluşan bulaşlar, taklit ve tağşişler, gıda katkı maddeleri ile ambalaj malzemelerinden kaynaklanan migrasyonlar gıdaların kimyasal ajanlarla kontaminasyonunda önemli rol oynamaktadır. Çevresel kirleniciler, ya insanlar tarafından oluşturulan (antropojenik) ya da su, hava ve toprakta doğal olarak oluşan tehlikeli safsızlıklardır. Zehirli Maddeler ve Hastalık Kayıt Ajansı (ATSDR/Agency for Toxic Substances and Disease Registry) tarafından sıklıkları, toksisiteleri ve insanların maruz kalma potansiyellerine dayanarak 275 öncelikli kimyasal, kirleniciler olarak listelenmiştir (1). Ancak, çevredeki yeni veya “bilinmeyen” kimyasalları takip etmedeki zorluklar göz önüne alındığında, bunun önemli ölçüde eksik bir tahmin olduğu düşünülmektedir. Bilim insanları, bu belirsizliğin üstesinden gelmek ve gelecekteki sorunları önceden tahmin etmek amacıyla henüz düzenlenmesi gereken “gelişmekte olan kirlenici maddeleri” tanımlamaya çalışmaktadır. Tehlikeli kimyasal kirlenicilerin ve bunların karışımlarının emisyonu, dağılması ve maruziyeti genellikle sporadik olup zaman veya mekanla sınırlı değildir. Havadaki parçacıklar, gazlar ve aerosoller, suda asılı kalan parçacıklar ve çözünmüş kirlenicilerin küresel göçlerine dair ikna edici önemli kanıtlar bulunmaktadır. Nano ve mikro ölçekli sentetik

¹ Dr. Öğr. Üyesi, Van Yüzcüncü Yıl Üniversitesi, Veteriner Fakültesi, Besin-Gıda Hijyeni ve Teknolojisi Bölümü, tuncercakmak@yyu.edu.tr, ORCID iD: 0000-0002-9236-8958

² Dr., Elazığ İl Gıda Kontrol Laboratuvar Müdürlüğü, e-mail: ftonbak80@gmail.com ORCID iD: 0000-0001-7308-512X

ve biyobirikimli toksik maddelerin gıda kontaminasyonuna neden olmasını önlemek için gıdalar yanında ayrıca tüm çevre bileşenlerinin de sürekli izlenmesi gerekmektedir. Bilim camiası ile çeşitli tüketici grupları arasında toksikolojik çalışmalar ve toksik seviyelerle ilgili tartışmalar hala güncelliğini korumaktadır. Birçok faktör nedeniyle gıda endüstrisinde kimyasal toksisite araştırmaları çok büyük önem taşımaktadır. Bu nedenle titiz toksikolojik çalışmalarla kimyasal kontaminasyon tür ve yoğunluğunun sürekli araştırılması ve bu araştırmaların ilgili/yetkili birimler tarafından desteklenmesi gerekmektedir. Böylece gıda endüstrisi tarafından sunulan gıda ürünlerinde kalitenin artırılması ve nihai olarak da halk sağlığının korunması yanında yetkili otoriteler için de geleceğe dönük projeksiyon ve yasal düzenlemelere yönelik faydalı veriler sunacaktır.

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