



# Ette Renk Oluşumu ve Renk Tayin Yöntemleri

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## 1. Giriş

Renk, et ve et ürünlerinin tüketiciler tarafından satın alınma kararının verilmesinde etkili olan en önemli görsel kalite kriterlerinden biridir. Etin parlak kırmızı yüzey renginde olması sağlıklı ve taze olduğunu ifade eder (Salueña ve ark., 2019; Tomasevic ve ark., 2021). Et endüstrisi istenmeyen renk değişimleri kaynaklı para kaybı yaşadığı için renk ekonomik açıdan da önemli bir unsurdur (Mancini ve Hunt, 2005). Bu nedenle, renk ölçümleri ve değerlendirmesi, et ve et ürünlerine yönelik bilimsel araştırmaların, ürün geliştirmenin ve işleme sorunlarının giderilmesinin önemli bir parçasıdır. Ayrıca, et rengi, dünya çapında et bilimi araştırmacılarının dikkatini çeken en önemli kalite özelliği olmaya devam etmektedir (Mancini, 2013; Bekhit ve ark., 2019a). Et renginden büyük oranda kas liflerinin sarkoplazmasında yer alan bir hem proteini olan miyogloblin pigmenti sorumludur. Miyogloblin, kasta aerobik metabolizma için oksijen depolayan suda çözünür bir proteindir. Taze ette miyogloblin üç temel formda bulunabilir; deoksimiyogloblin (DMb), oksimiyogloblin (OMb) ve metmiyogloblin (MMb), bunlar miyogloblin pigmentinin sırasıyla

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nar (Beć ve ark., 2020). Ancak, referans bir yöntemle bağımlı olması, küçük bileşenlere karşı zayıf duyarlılık göstermesi ve veri yorumlamasının karmaşıklığı gibi bazı faktörler dezavantajlarını oluşturmaktadır (Prevolnik ve ark., 2004). NIR spektroskopisi ile renk ölçümü, moleküler bağların kızılötesi ışığın belirli dalga boylarında emilimi gerçeğine dayanır. Bir bileşiğin konsantrasyonu ne kadar yüksek olursa, kızılötesi ışık o kadar fazla emilir ve NIR spektroskopi cihazına daha az yansıtılır. NIR spektroskopi cihazı, analiz edilen nesne tarafından yansıtılan ışığın oranını ölçer (Manley, 2014). Su, protein, yağ, şeker gibi organik moleküllerin miktarı NIR spektroskopisi ile ölçülebilmektedir (Alander ve ark., 2013).

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