Kanatlı Hayvan Beslemede Yağların Metabolizması ve Pratikte Kullanımı

YAZAR

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Amcam Durmuş Alp PEKEL'e…

ÖNSÖZ

Türkiye'nin 2022 yılı itibari ile kanatlı eti üretimi 2,5 milyon ton ve yumurta üretimi de 20 milyar adet olarak gerçekleşmiştir. Ülkemiz yumurta üretimi bakımından dünyada onuncu, tavuk eti üretimi bakımından ise dokuzuncu sırada yer almaktadır. Türkiye'de gene 2022 yılı itibari ile toplam 366 milyon kümes hayvanı bulunmaktadır. Bu kümes hayvanının 361 milyonunun tavuk olduğu, bunun da 251 milyonunun et tavuğu ve 110 milyonun ise yumurta tavuğu olduğu bildirilmiştir. Geri kalan kanatlı hayvanların ise 3,5 milyonunun hindi ve 1,3 milyonunun ise kaz olduğu belirtilmiştir. İl bazında bakıldığında et tavuğu sayısı bakımından Balıkesir, Manisa, Sakarya, Bolu ve Mersin ilk beş büyük ilimizdir. Yumurta tavuğu sayısı bakımından ise Afyon, Manisa, Konya, İzmir ve Gaziantep ilk beşte bulunan illerimizdir. Sektör tarafından kullanılan yıllık kanatlı hayvan yemi miktarı ise 11 milyon ton civarındadır. Bunun da %57'si etlik piliç yemi ve %33'ü ise yumurta tavuğu yemidir. Kanatlı sektörünün cirosu ise yaklaşık 5,5 ile 6 milyar dolar civarında olup, ülkemizde yaklaşık 1,5 milyon kişi ise bu sektörden ekmek yemektedir. Bu üretim verilerinin yanında yıllık kişi başı yumurta tüketiminin yaklaşık 235 adet ve gene yıllık kişi başı tavuk eti tüketiminin de yaklaşık 23 kg olduğu yayınlanan verilerden anlaşılmaktadır. Tüm bu yakarıda özetlenenlerden tavukçuluk sektörünün ülkemizdeki yeri ve önemi rahatlıkla görülmektedir.

Kanatlı hayvan beslemede bir örnek vermek gerekirse yumurta tavuğu yemlerinde minimum %5 düzeyinde bir ham yağın olması istenmektedir. Bunu yakalamak içinde ham maddelerden gelen yağa ilaveten yeme dışarıdan %1-3 arasında bir yağ kaynağının katılması gerekmektedir. Yemde yağa ilişkin en yüksek değer ise toplam %7 civarı bir ham yağ içeriği olabilmektedir. Dünyada 2023 yılı itibari ile sadece bitkisel yağ pazarının büyüklüğü 219 milyar dolar olarak gerçekleşmiştir. Gene dünyada hayvansal yağ pazarının 2023 yılı ile büyüklüğü ise 60 milyar dolar civarında gerçekleşmiştir. Bunların içinde hayvan yemi için kullanılan sadece yemlik yağ pazarının ise 360 milyon dolar civarında olduğu bildirilmektedir (yemde kullanılan yemlik yağ dışındaki yağlar hariç). Global hayvan yemi pazarının büyüklüğünün ise 530 ile 570 milyar dolar arasında olduğu ve bununda yaklaşık üçte birinin kanatlı hayvan yeminden oluştuğu da 2023 yılı için elde olan verilerdir. Bu verilerden yem pazarında yemlik yağın payının yaklaşık %1,5 civarında olduğu anlaşılmaktadır.

Ülkemizde 2022 yılı için toplam 27 milyon ton karma yem üretimi gerçekleştirildiği resmi verilerden anlaşılmaktadır. Bunun da yaklaşık 11 milyon tonunun kanatlı hayvan yemi olduğu bildirilmiştir. Türkiye'de toplam karma yem pazarının ise 2023 yılı için 11 milyar dolar civarında olduğu düşünülürse yemlik yağ pazarının (yemlik yağlar ve yemlik olanlar dışındakilerin tamamı) yaklaşık 165 milyon dolar olduğu tahmin edilebilir. Bu

veriler bize kanatlı hayvan beslemede yem üretiminde yağlarında önemli miktarda kullanıldığını ve bunların gerek kanatlı hayvan metabolizması ve gerekse de yem üretimindeki etkilerinin ayrıntılı bilinmesinin daha ekonomik ve sağlıklı bir üretime katkı sağlayacağını düşündürebilir. Bu vesile ile yazılan bu kitapta yağların kanatlı hayvan metabolizmasındaki etkileri ayrıntılı olarak işlenmeye çalışılırken, aynı zamanda bu bilgilerin sahada pratik kullanımına ilişkin örnekler verilerek sektörde çalışan meslektaşlarımıza yol gösterilmesi amaçlanmıştır. Her kitapta olduğu gibi okuyucuların geri dönüşleri ve bu eserin daha iyiye evrilmesi yönünde yapılacak katkılarınızı bekler, kitabın tüm okuyucularına hayat boyu başarılar dilerim.

Prof. Dr. Ahmet Yavuz PEKEL

İÇİNDEKİLER

KISALTMALAR

AA	: Araşidonik Asit
ALA	: Alfa Linolenik Asit
ALT	: Alanin Aminotransferaz
AME	: Belirgin Metabolik Enerji
AMEn	: Azota Göre Düzeltilmiş Belirgin Metabolik Enerji
AMPK	: AMP-aktive Protein Kinaz
AST	: Aspartat Aminotransferaz
BHA	: Bütil Hidroksi Anisol
BHT	: Bütil Hidroksi Toluen
CAT	: Katalaz
CLA	: Konjuge Linoleik Asit
DHA	: Dokosahekzaenoik Asit
DPA	: Dokosapentaenoik Asit
EPA	: Eikosapentaenoik Asit
FASN	: Yağ Asidi Sentaz
FFA	: Serbest Yağ Asitleri
FSH	: Folikül Uyarıcı Hormon
GDO	: Genetiği Değiştirilmiş Organizma
GE	: Ham Enerji
GGT	: Gamma Glutamil Transferaz
GSHPx	: Glutatyon Peroksidaz
HDL	: Yüksek Yoğunluklu Lipoprotein
HMG-CoA	: 3-Hidroksi-3-Metilglutaril Koenzim A
IFN-γ	: İnterferon-gama
IGF-1	: İnsülin Benzeri Büyüme Faktörü-1
IL-2, IL-6, IL-8	: İnterlökin-2, -6 ve -8
LA	: Linoleik Asit
LDL	: Düşük Yoğunluklu Lipoprotein
MCFA	: Orta Zincirli Yağ Asitleri
MDA	: Malondialdehit
MUFA	: Tekli Doymamış Yağ Asitleri
NEFA	: Serbest Yağ Asitleri
PUFA	: Çoklu Doymamış Yağ Asitleri
SFA	: Doymuş Yağ Asitleri
SOD	: Süperoksit Dismutaz
SYA	: Serbest Yağ Asitleri
TBARS	: Tiyobarbitürik Asit Reaktif Maddeler
TCA	: Trikarboksilik Asit Döngüsü
TG	: Trigliserit
T3	: Triiyodotironin
TME	: Gerçek Metabolik Enerji
TNF-α	: Tümör Nekroz Faktörü-alfa
UFA	: Doymamış Yağ Asitleri
VLDL	: Çok Düşük Yoğunluklu Lipoprotein
YKHS	: Yağlı Karaciğer Hemorajik Sendromu

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