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SMART ISHRANA BROJLERA – EKOLOŠKI ODRŽIVA STRATEGIJA KONTROLE ANTIMIKROBNE REZISTANCIJE

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Kratak sadržaj

Eubiotički odnosi u digestivnom traktu brojlera predstavljaju jedan od najvažnijih preduslova za očuvanje zdravstvenog stanja životinja, a time i za povećanje proizvodnje visoko kvalitetnih i zdravstveno ispravnih namirnica animalnog porekla. Zbog sve većih zahteva svetskog potrošačkog lobija, a poštujući proizvodne prioritete (bolje iskorisćavanje hrane, duža održivost, lakša manipulacija) sa konačnim ciljem povećanja proizvodnje i poboljšanja kvaliteta namirnica animalnog porekla, pored osnovnih hraniva u smeše se dodaje i veliki broj aditiva koji imaju različite namene. Aditivi se opisuju kao supstance koje, dodate smešama osnovnih hraniva u malim količinama, potenciraju korisne, a suprimiraju štetne efekte. Dodatkom antiobiotika kao aditiva, proizvođači su u prošlosti ostvarivali dobit koja se zasnivala na većem prirastu uz bolju konverziju i niže troškove lečenja. Uporedo sa povećanjem količine utrošenog antibiotika primećen je globalni problem porasta učestalosti rezistencije bakterija na antibiotike. Takođe, utvrđeno je prisustvo rezidua antibiotika u namirnicama animalnog porekla, kao i njihovo moguće genotoksično delovanje. Nakon zabrane upotrebe antibiotika u svrhu stimulacije rasta, javio se interes za razvijanje novih nutritivnih strategija koje će podržati funkciju autohtone mikroflore u gastrointestinalnom traktu u kontroli patogenih bakterija. Jedinstvenom kombinacijom zakiseljivača (protektirane benzove kiseline), živih probiotskih kultura (*Bacillus Licheniformis*) i adsorbenta mikotoksina (kombinacija klinoptilolita i esterifikovanog mananoligosaharida), osmišljenoj na Katedri za ishranu i botaniku Fakulteta veterinarske medicine, kreiran je dodatak hrani za životinje Eubiotik, koji stimuliše rast koristeći fizioloske potencijale i mehanizme same životinje, ne stvarajuci rezidue. U nizu eksperimenata organizovanim na brojlerima, na registrovanim farmama u Republici Srbiji, korišćenjem Eubiotika smanjena je dužina tova u turnusu, ostvarena je veća telesna masa, kao i bolja konverzija hrane, isključujući u potpunosti upotrebu antibiotika. Definitivno, dodatak Eubiotika omogućava održavanje eubiotičkih odnosa (ravnoteža u mikropopulaciji digestivnog trakta) čime se povećava efikasnost varenja i resorpcije hranljivih materija, kao i otpornost prema poremećajima izazvanim enteropatogenim bakterijama i na taj način se ostvaruje isti efekat kao pri korišćenju antibiotika, ali bez opisanih neželjenih efekata.

Ključne reči: ishrana, brojleri, eubioza, pronutritivne materije, održivost

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SMART BROILER NUTRITION – AN ENVIRONMENTALLY SUSTAINABLE STRATEGY FOR THE CONTROL OF ANTIMICROBIAL RESISTANCE

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Summary

Eubiotic relationships in the digestive tract of broilers are one of the most important prerequisites for preserving the health of animals, and thus for increasing the production of high-quality and healthy foods of animal origin. Due to the increasing demands of the global consumer lobby, and respecting production priorities (better food utilization, longer sustainability, easier manipulation) with the ultimate goal of increasing production and improving the quality of foods of animal origin, in addition to basic nutrients, a large number of additives are added to mixtures that have different purposes. Additives are described as substances that, when added to mixtures of basic nutrients in small quantities, potentiate the beneficial and suppress the harmful effects. By adding antibiotics as an additive, manufacturers have in the past made profits based on higher weight gain with better conversion and lower treatment costs. Along with the increase in the amount of antibiotics consumed, a global problem of increasing the incidence of bacterial resistance to antibiotics has been observed. Also, the presence of antibiotic residues in foods of animal origin was determined, as well as their possible genotoxic activity. After the ban on the use of antibiotics for the purpose of stimulating growth, there has been interest in developing new nutritional strategies that will support the function of indigenous microflora in the gastrointestinal tract in the control of pathogenic bacteria. With a unique combination of acidifiers (protected benzoic acid), live probiotic cultures (*Bacillus Licheniformis*) and mycotoxin adsorbents (a combination of clinoptilolite and esterified mannan-oligosaccharide), designed at the Department of Animal Nutrition and Botany of the Faculty of Veterinary Medicine, the feed additive „Eubiotik" was created, which stimulates growth using the physiological potentials and mechanisms of the animal itself, without creating residues. In a series of experiments organized on broilers, on registered farms in the Republic of Serbia, the use of „Eubiotik" reduced the length of fattening, achieved a higher body weight, as well as better feed conversion rate, completely excluding the use of antibiotics. Definitely, the addition of „Eubiotik" allows the maintenance of eubiotic relationships (balance in the micropopulation of the digestive tract), which increases the efficiency of digestion and resorption of nutrients, as well as resistance to disorders caused by enteropathogenic bacteria, thus achieving the same effect as when using antibiotics, but without described side effects.

Key words: feed, broilers, eubiosis, pronutrients, sustainability

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