Wealth of Knowledge I

157 Transforming bird health and managerial considerations into caloric costs in the production environment. R. Teeter*, L. Newman, A. Beker, and C. Broussard, Department of Animal Science, Oklahoma State University, Stillwater.

AAAP abstract†

158 Pathology associated with a chicken astrovirus isolated from broiler chickens with running and stunting syndrome. G. Zavala*, S. Cheng, C. Brown, and J. Zhang, Department Of Population Health, University of Georgia, Athens.

AAAP abstract†

159 Comparative pathology of diseases of tendons in broilers and broiler breeders. F. Hoerr*, Thompson-Bishop-Sparks State Diagnostic Laboratory, Auburn, AL.

AAAP abstract†

160 Histopathological changes associated with white striping in broiler breast muscles. V. A. Kuttappan*1, H. L. Shivaprasad2, B. M. Hargis3, F. D. Clark4, S. R. McKee5, and C. M. Owens1, 1University of Arkansas, Fayetteville, 2University of California, Davis, 3Auburn University, Auburn, AL.

White striping is a characterized grossly by the occurrence of white striations, seen parallel to the direction of muscle fibers, on broiler breast fillets and thighs. Based on visual evaluation of the intensity of white striping, breast fillets can be categorized into normal (NORM), moderate (MOD) and severe (SEV) categories. A detailed microscopic evaluation of the fillet samples could provide information regarding the structural and compositional changes associated with the occurrence of white striping. The present study was undertaken to evaluate the details of histological changes occurring in the fillets with respect to the 3 degrees of white striping. Representative breast fillets, for each degree of white striping (n = 20), were collected from 45-d-old broilers, around 2 h post mortem. From each fillet, 2 tissue samples were obtained and fixed in 10% neutral buffered formalin. To identify and differentiate the histological changes, slides were prepared and stained using Hematoxylin and Eosin and Masson’s Trichrome stains. Major changes observed in the MOD and SEV samples consisted of loss of cross striations, variability in fiber size, increased eosinophilia, flocular/vacuolar degeneration and lysis of fibers, mild mineralization, occasional regeneration (nuclear rowing and multinucleated cells), mononuclear cell infiltration, lipodosis and interstitial inflammation and fibrosis. Lesions were visually scored mainly for degeneration and necrosis, fibrosis and lipodosis in the samples. The scale used to score the samples ranged from 0 (normal) to 3 (severe). There was a significant (P < 0.05) increase in mean scores for degenerative or necrotic lesions, fibrosis and lipodosis as the degree of white striping increased from NORM to SEV. The histopathological findings from the present study show that the changes occurring in white striping are similar to muscular dystrophy of unknown cause.

Key Words: white striping, broiler breast fillets, histopathological changes, fibrosis and lipodosis, muscular dystrophy

161 The efficacy of two Mycoplasma gallisepticum vaccines in laying hens. N. Ferguson-Noel*, S. Williams, and V. Laibinis, University of Georgia, Athens.

AAAP abstract†

162 Tracking infectious laryngotracheitis CEO vaccine: Field to processing. D. L. Brinson*, M. Garcia, G. Zavala, S. Riblet, L. Chappell, L. Dufour-Zavala, A. Vagnozzi, P. O’Kane, and R. Espinosa, Poultry Diagnostic And Research Center, Department of Population Health, College of Veterinary Medicine, The University of Georgia, Athens.

AAAP abstract†

163 The effect of vectored HVT+IBD (Vaxxitek HVT + IBD) vaccination on body weights, uniformity and virus shedding in commercial broilers. A. T. Garrity*, Merial Select Inc., Gainesville, GA.

AAAP abstract†

164 Protection and virus shedding after challenge with various infectious bursal disease virus isolates in commercial broilers vaccinated with a vector HVT + IBD vaccine. E. Montiel*, N. Pritchard, and D. Smith, Merial Select Inc.

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