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Development of a non-destructive detection system of Deep Pectoral Myopathy in poultry by dielectric spectroscopy

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1 **DEVELOPMENT OF A NON-DESTRUCTIVE DETECTION SYSTEM OF**
2 **DEEP PECTORAL MYOPATHY IN POULTRY BY DIELECTRIC**
3 **SPECTROSCOPY**

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12 **ABSTRACT**

13 The trend in meat consumption has changed drastically in the last years, mainly due to
14 the relationship of red and processed meats with cancer and cardiovascular diseases,
15 which has caused a substantial growth in poultry meat consumption, 8% in 2016.
16 Therefore, poultry production has suffered an intensification that has led to an increase
17 in the incidence of internal malformations in chickens and turkeys for fattening,
18 especially in the pectoral muscles, as Deep Pectoral Myopathy (DPM). Currently,
19 industry is not able to detect DPM breasts when sold as whole carcasses. In this context,
20 the use of dielectric spectroscopy, complemented by a deep study of the chemical,
21 biochemical and microstructural transformations of the muscle and the effect that these
22 changes have on the electrical dispersions in radiofrequency range, may become
23 feasible for online DPM detection. For this paper, non-damaged and affected by DPM

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