

## Posters

### 33. Effects of incorporating 3% and 6% nettle powder on zootechnical performance, oxidative status and physicochemical characteristics of commercial turkey meat.

Sadoudi A.<sup>1</sup>, Ait-Kaki A.<sup>2</sup>, Bellik Y.<sup>3</sup>, Touazi L.<sup>4</sup>, Iguer-Ouada M.<sup>5</sup>, Hornick J.L.<sup>1</sup>, Moula N.<sup>1,6</sup>

1. Dept of Veterinary Management of Animal Resources, FARAH, FMV, ULiège ; 2. Faculty of Sciences, Department of Biology, University of M'Hamed Bougara, 35000 Boumerdès, Algeria ; 3. Department of Biology, Faculty of Life and Nature Sciences, Mohamed El Bachir El Ibrahimi University, Bordj Bou Arreridj, Algeria ; 4. Dept of Agronomy, Faculty of Nature and Life Sciences, Ferhat Abbas University of Setif, EL Bez, Setif, Algeria; 5. Associated Laboratory in Marine and Aquaculture Ecosystems, Faculty of Nature and Life Sciences, University of Bejaia, Algeria ; 6. GIGA Animal Facilities, ULiege

**Corresponding author:** [Nassim.Moula@uliege.be](mailto:Nassim.Moula@uliege.be)

The aim of this study was to investigate the impact of incorporating nettles (*Urtica dioica* L.) on the zootechnical performance, biochemical and physicochemical parameters of the meat and the oxidative status of the turkey (*Meleagris gallopavo*) reared under intensive conditions. The evaluation of the potential of this ingredient was carried out by comparing two rates of dietary incorporations, 3 and 6%, of nettles powder in three commercial feeds corresponding to three growth phases, during 12 weeks of rearing. The feed was distributed *ad-libitum* during the whole rearing phase. A total of 72 one-day-old turkeys were assigned to 3 dietary treatments, consisting of three replicates of eight birds each. Results showed that nettle leaves significantly improved the growth performance, with live weight at 12 weeks of age ( $P < 0.05$ ), which is higher in the group fed with 3% nettle powder (NP3%) than in the groups fed with 0% (NP0%) and 6% (NP6%) nettle powder (NP3%: 10534g; NP0%: 9829g; NP6%: 9233g;  $P < 0.05$ ). Over the rearing period, the NP0% group recorded a better feed conversion ratio (NP0%: 2.86; NP3%: 3.03; NP6%: 3.06;  $P = 0.03$ ). Mortality was similar between the three groups (8% average). Oxidative status was significantly affected by supplementation among the three groups ( $P < 0.001$ ). The antioxidant capacity, measured by the way of Total Antioxidant Capacity, Glutathione Peroxidase, Superoxide dismutase, Catalase and Malondialdehyde, was linearly improved with the level of incorporation of nettle powder ( $P < 0.001$ ). No significant differences were recorded between the 3 groups for the chemical composition (water, protein, Fat and ash) and physicochemical parameters (pH24, WHC, Cooking loss, Redness, yellowness and brightness) of the meat.

---