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Spoilage of light (PSE-like) and dark turkey meat under aerobic or modified atmosphere package: microbial indicators and their relationship with total volatile basic nitrogen

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5 and 12. This evaluation was extended to include d 19 and 25 when samples were under MAP conditions.

3. The dark meat group after 12 d of storage in aerobiosis presented significantly higher plate counts of aerobic mesophilic, psychrotrophic micro-organisms and higher TVB-N than other meat colour categories. The shelf life of turkey meat under MAP was one week longer for intermediate and light colour meat (20 d) than for dark meat. TVB-N values of 20 to 30 mg NH_3 /100 g turkey meat correspond to advanced spoilage stages. We proposed 14 mg NH_3 /100 g as the limit of freshness acceptability for turkey meat.

4. TVB-N was an indicator of turkey meat microbial spoilage but was not a suitable early predictor for microbial spoilage and in particular for turkey meat stored under MAP conditions because counts of micro-organisms were moderately correlated (*Pseudomonas* spp. and *Enterobacteriaceae*) with this index, as they were inhibited by MAP gas mixture and storage temperature used in the present study.

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