

Effet de l'entraînement de porcelets avec du saccharose ou du glutamate monosodique sur les résultats ultérieurs de tests d'appétence

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Avec la collaboration technique de Carles COLOM (1)

Effect of training piglets with monosodium glutamate or sucrose on subsequent palatability test results

Palatability tests are a useful tool to assess the sensory properties of feed ingredients and additives. A training period is often necessary prior to testing so that animals become familiarized with the experimental procedure. However, little has been published on this topic and particularly with piglets. Three studies, using preference (double-choice) and acceptance tests were conducted to assess the effect of a piglet training strategy on subsequent palatability test results. One hundred and twenty piglets (10.5 ± 2.2 kg BW, 35 to 42 day-old) were trained during three consecutive days with either sucrose (SUC) or monosodium glutamate (MSG) for sweet and umami taste, respectively, and then tested with both compounds. The SUC and MSG were added to the feed or dissolved in water for the preference and acceptance tests, respectively. For each compound, the preference (% consumed relative to total consumption) or consumption rate (g/sec) were recorded and means compared according to the training strategy received. In both preference and acceptance tests, the palatability recorded for MSG was significantly higher ($P < 0.005$) and variability in response lower if piglets were trained previously with MSG. On the other hand, the training strategy did not affect subsequent palatability scores recorded for SUC. In conclusion, palatability results may be influenced by prior training strategy and are compound-dependent.