52. 雞糞加工產品製程研發

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本試驗旨在探討以模組化乾燥設備進行蛋雞糞乾燥，並進行異味處理模組開發，對蛋雞糞成分、大腸桿菌群菌落形成數及氨氣的減排效果。結果顯示，以自來水（A 組）及自來水加鹽酸（B 組）進行噴霧處理異味，分別可減少約 75 及 85%的氨氣排放，蛋雞糞經乾燥後各項成分均符合雞糞加工肥料（5-08）品目標準，A 組及 B 組的鋅含量分別為 481 及 485 ppm，均接近品目標準上限，A 組及 B 組乾燥後雞糞大腸桿菌群菌落形成數分別為 2.96×10^2 cfu/g 及小於 1。綜上，後續可嘗試由降低飼糧中鋅含量或添加鋅含量較低的調整材，以降低成品的鋅含量。

關鍵語：空氣污染物、雞糞乾燥、蛋雞糞

Research development of chicken manure processing products

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The purpose of this experiment is to investigate the effect of using modular drying equipment to dry layer manure and develop the odor treatment module to reduce the emissions of layer manure components, the number of E. coli colony and ammonia emission. The results show that the use of tap-water (group A) and tap-water plus hydrochloric acid (group B) to spray the odor can reduce ammonia emissions by about 75% and 85%, respectively. After drying all the ingredients are accord with the product standards of layer hen manure processed fertilizer (5-08). The zinc content of group A and group B are 481 and 485 ppm, respectively, which are close to the upper limit of the item standard, and the number of colony formation of E. coli in chicken manure after drying of group A and group B is 2.96×10^2 cfu/g and less than 1, respectively. In the future, you can try to reduce the zinc content in the diet or add low-zinc content adjustment materials to reduce the zinc content of finished products.

Key Words: Air pollutant, Chicken manure drying, Laying hen manure