

## 85. 水簾式肉豬舍空氣品質調查

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本試驗旨在探討豬隻進養前後水簾式肉豬舍外水簾端 (P1)、豬舍內水簾端 (P2)、豬舍內空污防治設施前端 (P3) 及後方 (P4) 等 4 個位置，測定風扇不同運轉功率 (40%、50%、60%、70%、80%、90% 及 100%) 對豬舍空氣品質之影響。結果不論豬隻進養前及豬隻生長期豬舍 4 個測定位置，皆未測得 CO 及 H<sub>2</sub>S，O<sub>2</sub> 皆維持正常的 20.8% 濃度。豬隻生長期時豬舍的 NH<sub>3</sub> 濃度明顯較豬隻進養前為高。在豬隻平均體重約 50 kg 時在 P3 與 P4 位置測定異味濃度結果分別為 194 及 40，異味去除率約為 79%。

關鍵語：空氣品質、異味濃度、水簾豬舍

### Investigation on air quality of water-pad cooling pig house

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The purpose of the experiment is to investigate the water-pad end (P1) outside the pig house, the water-pad end (P2) in the pig house, the front (P3) and the rear (P4) of the air pollution prevention and control facilities in the pig house before and after the pigs are raised. Four positions were used to measure the effect of different fan operating power (40%, 50%, 60%, 70%, 80%, 90% and 100%) on the air quality of the pig house. Results regardless of the four positions in the pig house before the pigs were brought in and the growing period of pigs, no CO and H<sub>2</sub>S were detected, and the O<sub>2</sub> concentration was maintained at a normal 20.8%. The concentration of NH<sub>3</sub> in the pig house during the growing period of pigs was higher than that before the pigs were raised. When the average weight of pigs is about 50 kg, the odor concentrations measured at the P3 and P4 positions are 194 and 40, and the odor removal rate is about 79%.

Key Words: Air quality, Odor concentration, Water-pad cooling pig house