

我國 DHI 牛群生產年限與相關繁殖性狀之表現

陳志毅

行政院農委會畜產試驗所新竹分所

為健全 DHI 乳牛健康資料收集系統，並建置完整之 DHI 牛隻異動關聯資料庫查詢平台，DHI 計畫推動各項重要資訊品質改進方案，包括推廣改良式乳牛異動資料表單加強收集乳牛疾病與淘汰資料、核對牧場離群牛隻與現場實際數量之差異校正、新增 DHI 現場紀錄表之生產性狀收集項目健資料收集完整度、加強各乳牛關聯資料庫的整合作業以及建置乳牛異動資料檔（疾病與離群分析資料檔）等，統計乳牛健康相關資料檔，顯示不明確的離群原因紀錄比例，自 2009 年的 60% 下降至 2013 年的 4.5%，目前仍持續強化乳牛健康紀錄以提昇資料之正確率；依據新建立之 DHI 乳牛異動資料檔，分析 2011 年至 2013 年三年期間共 8,172 頭乳牛之離群紀錄，資料顯示平均牛群離群年齡為 65.0 ± 0.3 個月 (Mean \pm SE)、生產年限是 37.4 ± 0.3 個月、平均胎次則為 3.19 ± 0.02 胎；台灣荷蘭乳牛之離群年齡約為 5.4 歲，生產年限約為 3.1 年，初產月齡平均 27.6 個月（約 2.3 歲），以此資料推估乳牛胎距平均長度約在 15 至 16 個月之間，此數值較亞熱帶地區之理想建議值 14 個月稍高，若扣除懷孕估計值約 270 至 280 天左右，空胎日數亦大於 150 天，也高於 90 至 120 天的建議範圍約 30 天以上，由於配種與飼養技術的進步，乳業先進國家的乳牛初產月齡正逐漸下降，離群年齡也以生產性能表現不佳者作為主要的淘汰策略，目的是延長牛群的使用年限，以創造較佳的終生生產效益表現，由此看來我國 DHI 牛群之繁殖效率等生產性狀表現仍有改善之空間。

關鍵語：DHI 牛群、使用年限、離群年齡

REPRODUCTION PERFORMANCE AND PRODUCTION LIFE OF DHI COWS OF TAIWAN

J. Y. Chen

Hsin-Chu Branch, Livestock Research Institute, Council of Agriculture

For enriching the data collection of DHI data system, a new developed subsystem was to record movements and other transactions of DHI cows on the database. A new developed questionnaire was including diseases and cull reasons. Difference was checked between field animal number and submitted culling tables. From collected culling data and related data files, showing the unknown reason for culling ratio fell to 4.5% in 2013 from 60% in 2009. The collecting of health records can improve the accuracy of the dairy cattle information. There was 8,172 cows culled between 2011 to 2013. The average culling age was 65.0 ± 0.3 months (Mean \pm SE), production life was 37.4 ± 0.3 months, and average parity was 3.19 ± 0.02 . The culling age of Taiwan Holstein cow was 5.4 years old, production life was 3.1 years and first calving age 276 months (2.3 years old). The estimated calving interval was about 15 to 16 months, which was higher than the 14 months of the suggested subtropical average. The days open was more than 150 days and which was 30 days higher than the suggested 90 to 120 days open, if 280 pregnant days was subtracted. Due to progress in breeding and feeding techniques, first calving days is decreasing in the dairy advanced countries. Culling police was focusing on reproduction performance. From this study, There is still space for improvement of reproduction traits of Taiwan dairy industry.

Key Words: DHI cows, Production life, Culling age