

酪農端乳牛生產性能資料庫應用系統 (DADF)

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酪農端乳牛生產性能資料庫應用系統 (DADF) 為畜產試驗所新竹分所乳牛場經營管理線上運算網站 (簡稱 SFMC 網站; 網址為 www.tlrihc.gov.tw) 所系列發展研發之養牛技術平台, 本系統主要的 6 項資訊服務功能分別為 (1) 乳牛場經營管理線上運算網站建置, 可提供酪農操作 DADF 系統使用 (2) DADF 資訊報表應用模組, 可產生分娩頻度變化、冬夏乳比率、乳品質變動與個別牛泌乳表現等牧場經營所需之牛群性能進階型分析報表, 讓酪農檢討產期調節配種策略、調整季節性產乳量分布、瞭解生乳品質變動趨勢並追蹤乳牛泌乳曲線變化, 有助經營績效之提昇。此外亦結合乳牛登錄牛圖與證書資料, 建立我國 DHI 乳牛登錄數位證書, 符合 ICAR 動物紀錄規範, 以強化動物出生紀錄品質 (3) DHI 區域觀測站模組, 本模組可以線型圖表動態呈現各縣市目前參加 DHI 之測乳資料及檢定牛群的生產表現 (4) 乳牛雲端文件分享知識模組, 其「畜產知識多媒體」模組, 可播放標準擠乳作業或乳牛繁殖障礙對策等動態影片, 加強酪農專業技術養成; 「雲端文件分享」模組則提供使用者乳牛專刊數位文件下載, 促進乳業知識相互交流 (5) 無線射頻讀取器母牛識別模組, 以分所牛隻為示範對象, 以 125 KHZ 標籤簿標識分娩、配種等資料, 讀取內建日期, 記錄所在的位置的動物編號 (134.2KHZ Animal HDX Tag), 最後以條碼 (Barcode) 進行細項描述, 發展動物事件記錄無紙化技術 (6) DHI 管理報表內容品質改進模組, 包括各種 DHI 報表的資料收集方式改進等, 本系統可擴大 DHI 計畫增值資訊服務功能, 促進「台灣乳牛雲端資訊服務網 (TDC)」之建立, 有利未來全國農業智慧物聯系統之資訊整合。

關鍵語：乳牛、生產性能、應用系統

DATABASE OF MILK PRODUCTION PERFORMANCE FOR APPLICATIONS ON DAIRY FARMER (DADF)

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Database of Milk Production Performance for Applications on Dairy Farmer (DADF) is a new developed sub-series to assist dairy farm management by Livestock Research Institute, Hsin-chu branch (<http://www.tlrihc.gov.tw>). The system is consisted by six different services. (1) Setting Up a Farm Management Online Calculation Network (SFMC), which provides farm management practices online (2) DADF information sheets, which provides advanced management reports of calving frequency, winter-summer milk production ratio, milk quality changes and individual cow performance. Farmers can review breeding strategy, adjust the seasonal distribution of milk production and track the quality of raw milk and changes of the cow lactation curves to enhance the farm operation efficiency. A digital registration proof can be reprinted by this module, which provides image and registration data for following ICAR data recording guide regulation. (3) DHI regional observatory module: This module can provide dynamic linear chart to show the performance of cities and counties by currently participating in the DHI program herds. (4) Cow cloud knowledge file sharing module: "Livestock knowledge multimedia" sub-module can play milking standards or strategies of cow reproductive disorders or other dynamic multimedia files, and cloud file Sharing sub-module provides digital report file downloads. These can promote mutual exchange of dairy knowledge and to strengthen the techniques to develop dairy farming. (5) Radio Frequency Identification Module: Using cows of the branch institute to demo, The module are using 125 kHz Tags to identify calving, mating and vaccination .. etc farm operation data, 134.2 kHz FDX and HDX Tags to recording animals and house or pen of the animal, barcodes to recording the other detail operations/items and using the date-time data from the handheld machine. This module can provide an example of no-paper in farm management. (6) DHI report content quality improvement, which contains up-grading data collection methods and a variety of DHI report programs. The system can be expanded value-added information services, to promote "Taiwan dairy cattle in the cloud, TDC, establishment and can help the internet of things on dairy industry construction.

Key Words: Dairy cows, Production performance, Applications system