

# 台灣牛隻牛結核病流行現況

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## 摘要

牛結核病(bovine tuberculosis, bTB)是 *Mycobacterium bovis* (*M. bovis*)感染所造成的重要人畜共通傳染病，牛為主要宿主，但可感染多數哺乳動物。感染後依感染途徑會於頭胸部淋巴結或腹腔臟器產生特徵性結節病灶。皮內結核菌素試驗(Intradermal tuberculin test, ITT)是國際間貿易用的標準牛結核病檢驗方法，也我國標準檢測方法。在台灣，分離確診之陽性場數自 2012 至 2016 年間逐年降低，但近三年陽性場案例增加，2019 年甚至於屠宰場端出現多隻腦部病變之牛隻。2019 年 *M. bovis* 分離株以結核菌群常用之兩種基因分型方法 Spoligotyping 及 MIRU/VNTR (ETR-A、ETR-B 及 Qub11b 三個位置)分析，共得 6 個舊有之型別。

# **Prevalence of bovine tuberculosis in Taiwan cattle**

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## **Abstract**

Bovine tuberculosis (bTB) is an important zoonotic disease caused by *Mycobacterium bovis*. Although cattle are considered to be the main hosts of *M. bovis*, many mammals can be infected. Depending on the route of infection, characteristic nodular lesions can occur in the head, chest lymph nodes, or abdominal organs. The intradermal tuberculin test (ITT) is the standard method for testing bovine tuberculosis for the monitoring of the international cattle trade. It is also the standard method for bovine tuberculosis detection in Taiwan. The number of culture-positive herds decreased annually from 2012 to 2016 in Taiwan, whereas an increase in the number of positive cases has been observed in the past three years. Starting in 2019, multiple cows with brain lesions were observed in Taiwanese slaughterhouses. The 2019 *M. bovis* isolates were analyzed by two genotyping methods commonly used for the *Mycobacterium tuberculosis* complex: spoligotyping and MIRU-VNTR. Analyses using MIRU-VNTR were based on 3 loci: ETR-A, ETR-B, and Qub11b. Six previously described geno-types were thus characterized.