

牛流行熱油質疫苗研發

製劑研究組

林玖慧 助理研究員

摘要

為改善牛流行熱疫苗的效力，於 2020 時將本所販售的牛流行熱疫苗佐劑成分由磷酸鋁膠改為油性佐劑。田間有部分牛場反應使用新的油性佐劑疫苗後，產生一些狀況。建議疫苗使用前需充分回溫、只施打健康的動物上、疫苗注射部位為頸部的三角區域、應更換針頭，及免疫後泌乳量降低會在數天內恢復。2020 年在實驗動物(牛及兔)進行的疫苗佐劑最小有效劑量試驗及單劑量多次免疫試驗結果顯示含不同比例 (40%、33%、25%) 的油性佐劑疫苗皆會誘發高於建議保護力價的抗體，且證實本所販售的牛流行熱疫苗具安全性。

Development of Bovine Ephemeral Fever Oil Vaccine

Chiu-Hui Lin

Abstract

To improve the efficiency of bovine ephemeral fever (BEF) vaccine, we changed AHRI BEF vaccine adjuvant from aluminum phosphate to oil in 2020. There were some cattle farms reporting bothering problems after immunizing the new oil-adjuvant vaccine. We recommended that the vaccine should be fully warmed up before immunizing, injected in the triangular mass of muscle on the side of the neck in healthy animals. Besides, immunization with changing needles is important. A sudden drop in milk production after immunization will get back in a few days. Minimal efficient adjuvant test and multiple immunizations with single dose each test were conducted in laboratory animals (cattle and rabbits) in 2020. The results showed that vaccines with different percentages (40%, 33%, and 25%) of oil-adjuvant all stimulate antibody titers higher than those recommended for protection from BEF, and multiple immunizations proved that the commercial AHRI BEF oil-adjuvant vaccine was safe.