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## **Epidemiological Investigation of Abortion in Ewes in Algeria**

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**Abstract :** A study was conducted in order to determine the prevalence and risk factors associated with abortion in ewes in the region of M'sila, located in central-eastern Algeria. A questionnaire was carried out to obtain information about the occurrence of abortion, sheep housing conditions, vaccination, feeding and management practices, and whether the farmers kept other livestock. This cross-sectional study was conducted for 36 months (between 2016 and 2019). A total of 71 sheep flocks were visited. Among 8168 ewes, we recorded 734 (8.99%) abortions and 3861 lambings. The risk factor analysis using multivariable logistic regression showed an association between abortion and vaccination against brucellosis (CI 95%= 2,76-1,35; p<0,001). Abortion decreased when dogs are owned (CI 95%= 0,36-0,84; p= 0.006), however, abortion increased with the presence of cats in farms (CI 95%= 1,24-2,8; p=0.003). There was a significant association between abortion and keeping goats (CI 95%= 1,18-2,40; p= 0.004), bovins (CI 95%= 0,3-0,68; p<0,001) and poultry CI 95%= 0,39-0,77; p= 0.001) in farms. Through this study, it is noticed that a strong association between the occurrence of abortion and estrus synchronization, stillbirth occurrence, and feed supplementation (p<0.05). Identification of the causes of abortion is an important task to reduce foetal losses and to improve livestock productivity.

**Keywords:** abortion, ewes, questionnaire, risk factors

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