

histological examination of the ovaries (2 mm × 3 mm in size) from three females.

This study demonstrated that ovarian hypoplasia due to gonadal dysgenesis and cytogenetic abnormalities should be ruled out in maiden females with repeat breeding. Practitioners should develop transrectal ultrasonography skills necessary for the diagnosis of this condition. Failure to diagnose these anomalies may result in secondary uterine infection and compromise of the welfare of the females due to repeat breeding. Aspects of familial inheritance of gonadal dysgenesis in alpacas merit more studies.

Keywords: Alpaca; Sterility; Gonadal dysgenesis; Behavior; Laparoscopy

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COMPARISON OF THE PERFORMANCE OF SOWS RETAINED WITH AND WITHOUT HEALTH PROBLEMS DURING PERIPARTURIENT PERIOD IN THE SUBSEQUENT PARITY

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Sows are usually removed from breeding herds due to poor productivity or compromised welfare. Although, it may be relatively easy to make removal decisions based on performance and to validate the decisions made by evaluating the improvement in herd performance, it may be difficult to evaluate removal decisions associated with welfare reasons due to the lack of well-defined criteria. The periparturient period is a high-risk event for removal for both production and welfare reasons. The objective of the present study was to compare the performance of sows retained with and without health problems (lameness, other disease symptoms, e.g. vulvar discharge, fever, off-feed, diarrhea, respiratory problems) during the periparturient period (while the sows were in the farrowing crate for 3–4 days prior to farrowing and during lactation) in the subsequent parity in order to validate the decisions to remove/retain a sow. Data from a commercial swine breeding herd was used in this study ($N = 1407$). Information on health problems during the periparturient period was collected from sow records and data on the performance of the sows in the subsequent parity (wean-to-service interval, sows farrowed, farrow-to-farrow interval, piglets born alive, mummies, stillborn, preweaning mortality of piglets and sow longevity)

were collected from the PigCHAMP database of the herd. The production performances of the sows that were retained with and without health problems ($n = 555$ and 663 , respectively) during the periparturient period in their subsequent parity were compared using *t*-test and two-sample proportion test (SAS v 9.1, SAS Institute Inc, Cary, NC, USA). The sows retained despite health problems were not included for comparison of performance if they developed any condition other than the one reported during the periparturient period. Those sows retained without any reported health problems were excluded from the comparison if they developed health problems before the subsequent parity. Thus, out of 1407 sows retained, 189 sows were excluded from the comparison. The results indicated that the number of piglets born alive was higher ($P < 0.05$) among the sows without any reported health problems during previous periparturient period. The groups did not differ in terms of wean-to-service interval, farrow-farrow interval, pre-weaning mortality, mummies and stillborn. The number of sows farrowed was also higher ($P < 0.05$) in the group without any health problems. A higher ($P < 0.05$) number of sows were culled from the group with health problems during periparturient period than those without health problems. However, there was no difference between the groups in terms of number of sow deaths. The results were suggestive that a decision to retain sows despite health problems during the periparturient period may adversely affect the herd performance in the long-term.

Keywords: Sow performance; Periparturient risk factors; Sow longevity

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