ECONOMIC EVALUATION OF BOVINE EMBRYO SPLITTING

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The cost/benefit ratio is the main variable that affects the introduction and subsequent application of any new technology in the productive process. The aim of the present study was to evaluate the economic and technical viability of bipartition in a commercial bovine embryo transfer (ET) program. Embryos were split in the development stage of compact morula or blastocyst, with excellent or good morphologic evaluation (grade 1 or 2). The embryos were collected by conventional methods. A stereomicroscope (Carton SCZ-T4) connected with a mechanical device for micro-manipulation (Leitz) and metallic microsurgery blades were used (Ultra-sharp splittting blades-AB Technology). The embryos, split (T1: n=25 and 50 transfers) or intact (T2: n=50 and 50 transfers), were inovulated with the same technique, by the same professional. It was compare by 't' test between groups: average cost of each pregnancy and average costs of each viable calf. The costs of each pregnancy in the different groups were calculated considering the average costs of recipients maintenance for its period of permanence in each group, until pregnancy diagnosis, deducting the weight gain in the period, and added to the values of embryos production (R$ 172.76). The average cost of each product was calculated dividing the value of maintenance of the recipients and the total of embryos used in each group by the total of products born in each group. The pregnancy rate by original viable embryo was 70.37[a] and 51.92[b]% and the average cost of each 60-day pregnancy was R$278.85[a] and R$358.91[b] for T1 and T2, respectively. The average value of each viable offspring originated for group of split embryos was R$361.02[a] and for the group of intact embryos R$442.74[b]. This study shows that embryos splitting in a commercial bovine embryos transfer program, in Brazilian conditions, is a viable technique both economically and operationally. Key words: Bipartition, bovine, embryos