

Preliminary Results on the Utilization of Phytotherapy in Organic Italian Mediterranean Buffaloes

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ABSTRACT

It is known that the use of allopathic drugs is forbidden in organic agriculture. For this reason a growing interest has been recently focused on homeopathy and phytotherapy. The aim of this study was to evaluate the efficacy of some phytotherapeutic treatments in organic buffalo breeding. The trial was performed between November and July on 127 pluriparous Italian Mediterranean buffalo cows bred in an organic farm located in the South of Italy. Before the calving period, all buffaloes were divided into four groups according to days of gestation, number of lactations and milk production recorded in the previous year. After calving subjects in each Group underwent the following treatments: 1) Group A (n=36): no treatments during the first 30 days post-calving; 2) Group B (n=32): Intrauterine treatment by Aloe Arborescens, Daucus Carota, Calendula, Propoli, Tea tree oil (Aloe Lesionex gel[®], Nutrizoo, Caserta, Italia), between 20 and 25 days post-calving; 3) Group C (n=32): treatment by 4 vaginal pessaries constituted by Aloe Arborescens, Tea tree oil, Calendula Officinalis, Propolis (Aloe Lesionex Ovuli[®], Nutrizoo, Caserta, Italia), within 4 days post-calving and 4) Group D (n=28): treatment with both pessaries constituted by Aloe Arborescens, Tea tree oil, Calendula Officinalis, Propolis (Aloe Lesionex Ovuli[®], Nutrizoo, Caserta, Italia), within 4 days post-calving and the intrauterine treatment by Aloe Arborescens, Daucus Carota, Calendula, Propoli, Tea tree oil (Aloe Lesionex gel[®], Nutrizoo, Caserta, Italia), between 20 and 25 days post-calving. Buffalo bulls of proven fertility were present in the herd throughout the experimental period. Clinical examinations were performed 15 Days apart on all the subjects until pregnancy was assessed (30-35 days) and confirmed (90 days). The calving-conception interval (CCI) and the fertility rate (FR) was assessed for each Group. Differences among groups in FR were analyzed by Chi-square test and differences in CCI by ANOVA. No differences were observed in terms of pregnancy rate among groups. Fertility rate ranged from 62.5% in Group C to 52.8% in Group A and intermediate value were recorded in Group B (59.4%) and D (57.1%). However, a significantly lower ($P < 0.05$) calving-conception interval was observed in buffaloes treated by vaginal pessari within 4 days post-calving (Group C) compared to Group A and Group B (54.1 ± 18.5 , 68.0 ± 22.4 and 71.8 ± 16.3 in Group C, A and B, respectively). According to these results, in organic buffalo farming a phytoterapeutic treatment by Aloe Arborescens, Tea tree oil, Calendula Officinalis and Propolis within 4 days post-partum reduces the calving-conception interval.

Keywords: Organic, phytotherapy, fertility, Calving-conception interval.

This paper has only abstract