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Economic conditions for organic pig production in Sweden

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Today, the certified organic pig production constitutes less than 1% of the total Swedish pig production (approx 35 herds, 26 000 pigs per year). The governmental intention is to increase this proportion. However, the share has been almost constant for the last 15 years. The question is why the production concept has not increased in volume. Are the economic and biologic conditions satisfactory for a sustainable organic pig production, according to the rules set? In this study, the economic records, as well as production records for 12 certified organic pig productions units were analyzed. These results were compared with corresponding information from conventional pig production in Sweden. The results show that organic pig production is difficult to manage, resulting in high variation in productivity between farms. According to figures from a national database, the average production in conventional pig production was 22.4 piglets produced per sow and year. In organic pig production the average production was 18.2 piglets per sow and year, with a variation between 15.8 and 21.0. Costs for organic feed, energy, machinery and labour were higher in organic pig production than in conventional production, but payment per kg carcass was almost double. Results from fattening period showed about 10% lower feed efficiency in organic pig production. In conventional piglet production, the average labour use was 15 hours per sow and year and 0.2 hours per fattening pig produced. In organic herds, the corresponding figures were 30 hours per sow and year and 0.85 hours per fattening pig. Despite of higher costs, the average profitability was comparable between organic and conventional production. However, farmers experienced uncertainty regarding market demands for organic pork production. Thus the willingness to invest and expand production is restricted. There is also a need for improvements regarding new housing systems and technological solutions for organic pig production.

Effect of winter nutritional managements during the postpartum of beef heifers calving in autumn, on milk production and calves performance

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In Uruguay the mating period of beef cows coincides with summer, high temperatures and frequent periods of draughts. Some farmers are changing their production systems to an autumn service period. However, heifers mated in autumn have the challenge to lactate during winter when native pastures (NP) have lowest availability. The aim of this study was to evaluate the effects of 3 different winter nutritional systems during lactation on milk production and calves performance. Forty one heifers with their calves were managed together on NP until 87±4 d postpartum (pp), when they were assigned to one treatment during 90 d of winter: i) grazing NP (NP, n=14); ii) grazing improved pastures with *Lotus subbiflorus* (IP; n=13), iii) cows supplemented with a concentrate on NP (S, n=14). Supplemented cows were offered a concentrate (16%CP) at 1% of body weight (BW). When the treatments finished, all cows were managed together on NP until weaning (Day 210±3.8 pp). Calves BW were recorded at calving and every 28 days. Milk production (MP) was assessed at day 40, 60 and every 30 d until weaning. At 90 d pp all cows produced 3.1±0.3 k/d. At the end of winter S cows produced more (P<0.0005) milk than IP (4.4±0.3 vs 2.8±0.3 k/d) and IP cows produced more (P<0.05) milk than NP (1.9±0.3 k/d). At the onset of treatments calves weighed 86±2.8k. During winter calves presented different (P<0.05) daily weight gain (0.279±0.02, 0.347±0.03 and 0.493±0.02 k/d for NP, IP and S, respectively) and BW at weaning was lower (P<0.01) in calves from NP than calves from IP and S (144±3.4, 161±6.7 and 164±4.7 k for NP, IP and S, respectively). Heifers grazing IP or being supplemented produced more milk and weaned heavier calves respect to cows grazing NP. These managements would be considered in commercial conditions, when lactation coincides with winter.

Development of a methodology to analyse reproduction problems linked to environmental factors in cattle herds in Wallonia with key indicators and decision making trees

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The impacts of decreased of the reproduction performance in cattle herds on the profitability are large. There are many environmental factors which can influence reproduction performance. The clinical signs (poor heat detection/quality, infertility or abortion) are almost unspecific. At farm level, the farmers and their partners are faced with two major difficulties: definition and quantification of the problem and diagnosis of the environmental factor(s) implicated. So two tools were developed to answer these questions. The first one is a computer program available on every veterinarian-inseminator PDA of the Association Wallonne de l'Elevage. This program calculates online relevant retrospective and prospective key indicators. So, at any time, the real reproduction performances of the herd can be compared with targets fixed by the farmer and the inseminator. Watch lists (anoestrus, calving, repeat breeders..) can be printed in the farm after every visit for the monitoring of the reproduction. When the targets are not obtained, a methodology of diagnosis of environmental problems linked to reproduction is available. This is the second tool. Three decision-making trees (one for each reproduction problem: heat detection, infertility or abortion) organised in four levels allow the user to progress with logic and method to adjust the diagnosis. The first level indicates the clinical signs to observe, the second one proposes the complementary exams, the third one shows the different possible diagnosis and the fourth one explains the physiological links to the reproduction problem. The user can highlight specific reproduction problems, prioritize the major causes and propose relevant solutions to the farmer. This methodology is actually tested in 27 dairy and/or beef farms in Wallonia.

Effect of temporary suckling restriction and a short-term supplementation on ovarian cyclicity and early pregnancy in beef cows in low body condition

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Nutrition and suckling are the most important factors affecting the anoestrous period. The use of suckling restriction (SR) with nose plates (NPs) is a useful tool on range conditions but it does not increase consistently pregnancy rate when cows are in low body condition score (BCS). The aim of this study was to evaluate the effect of temporary SR and an increase in the nutritional level by a short-term supplementation, on ovarian cyclicity and pregnancy rate in low BCS cows. Thirty eight multiparous cows (3.6u BCS) were assigned to 3 treatments on 71±2 d postpartum (Day 0): i) suckling ad libitum (S, n=12), ii) calves fitted with NPs for 14 d remaining with their dams (NP, n=13), iii) same as ii) plus cows supplemented during this period (NP+S, n=13). Cows in NP+S were supplemented with rice bran at 0.7% of BW. All cows were in anoestrous at Day 0. Mating started 14 days before onset of treatments (Day -14) and lasted 60 days. BW and BCS were recorded at Day -14 and biweekly thereafter. Presence of corpus luteum (CL) was recorded at Day 14 and early pregnancy rate was considered when cows got pregnant during the first month of mating. Cows in S tended to present lower (P=0.08) BW than cows in NP group (441±4.0 vs 454±3.9k) but no differences were detected respect to NP+S cows (447±3.9k). There was no effect of treatment on BCS and in average cows presented 3.8±0.03u of BCS along the experimental period. By Day 14 more (P<0.0004) cows from NP and NP+S presented CL respect to S cows (62, 54 and 0% for NP, NP+S and S, respectively). During the first month of mating there was a tendency (P=0.08) that more NP+S cows got pregnant respect to S cows (85 vs 50%) but there was no difference respect to NP cows (77%). Fourteen days of supplementation would increase the reproductive response when NP are used in low BCS cows.