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| Induction of True Estrous and Super Ovulation Using Licorice Extract (*Glycyrrhiza glabra*) in Local Iraqi Does . | | | | | | Research Title |
| Single | Ihsan Hammodi Saeed AL-TIMIMI and Wafir Mahdi Saleh | | | | Shared name | Shared or Single |
| Al-Anbar J. Vet. Sci. | | | | | | Published Journal title |
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| 76-88 | | | | | | Page |
| 2010 | | | | | | Year |
| This study was carried out in the animal production field of the college of veterinary medicine/Baghdad University. The effect of licorice extract, on reproductive performance of 40 mature local Iraqi does were studied, aged between 2.5-5 years, and three mature and fertile bucks to observe does sexual behavior. The 1st experiment was conducted from 1-28 February 2008 on 25 does divided in to 4 groups which were treated weekly for 4 successive weeks with 300, 400 mg/Kg B.W. water solution of licorice extract weekly, 57 mg powder licorice extract with food/Kg B.W daily respectively with control group. Does were kept free for 4 hours daily with apronized bucks to notice their sexual behavior. Their weight and health were recorded.  The aim of the 2nd experiments was to evaluate the effect of licorice extract in induction of estrous and super ovulation in comparison with PMSG in the period the sexual regression (from 1-27 march 2008) using vaginal sponges impregnated with 40mg MAP for 14 days in synchronization except the control group (Gc). The experiment was conducted on 28 does divided into 5 groups, (G1) and (G2) were treated with 300mg and 400mg/Kg B.W. of licorice extract respectively, (G3) injected with 500 IU of PMSG IM 48 hr before removal of the sponges, (G4) treated with normal slain 48 hr before removal of the sponges. Does were left with apronized bucks to observe their sexual behavior for 7 days then, Exploratory laparotomies were done for does of each group to record the gross changes on ovaries and genitalia.  The 3nd experiment was conducted to evaluate the effect of licorice extract (in 2 different times of administration) in induction of estrous and super ovulation at the sexual regression period (7 April – 9 May 2008). In this experiment 30 does divided into 5 groups, estrous cycle of all groups had been synchronized using vaginal sponges except in (Gc). G1 was treated with 300mg licorice extract/Kg BW. 28 hr before removal of the sponges, G2 was treated with 300mg licorice extract/Kg BW, G3 treated with 500 IU PMSG at the day of removal of the sponges and G4 was treated with 300mg licorice extract/Kg BW + 500 IU PMSG at the day of removal of the sponges. Does were left with apronized bucks to observe their sexual behavior for 7 days then, Exploratory laparotomies were done for two does sowed estrous signs from each group.  In the 1st experiment, results showed the effect of licorice extract on does reproduction performance, include the results were recorded 83.3%, 50%, 33.3% estrus percentage for does treated with 400 mg, 300 mg water solution of licorice/ kg B.W. weekly and 57mg powder of licorice/kg B.W daily respectively, as compared to 28.5% for controls at the end of breeding season.  The results of 2nd experiment were recorded on estrus induction, 50% for groups which had treated with 300 and 400mg licorice/kg B.W and 60% for 500 IU PMSG, before 48 hrs of sponges removal, as compared to 0% control, with 4,1,1 prolificacy of 1st three groups outside of breeding season.  In the 3rd experiments, treated groups with 300 mg/Kg licorice solution 48 hrs of sponge’s removal, 500 IU PMSG and 300 mg licorice/kg + 500 IU PMSG at the time of removal of sponges, showed that induction of estrous and super ovulation were higher than those treated with 300 mg water solution of licorice at the time of removal of sponges and the control group. Group treated with 300 mg licorice/kg + 500 IU PMSG showed high ovarian activity and ovulation rate, ovarian size was 35x30mm, these ovaries known as (Herculean ovary), and the number of ovum was ranged from 3-13 ovum/doe as recorded by laboratory. From this study, we concluded that licorice can be used for induction of estrus and super ovulation in doe. | | | | | | Abstract |

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| Estrus synchronization in cows using PGF2α analogue in two regimes. | | | | | | Research Title |
| Single | Ihsan Hammodi Saeed AL-TIMIMI and Wafir Mahdi Saleh | | | | Shared name | Shared or Single |
| Al-Anbar J. Agriculture Sci. | | | | | | Published Journal title |
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| Forty non-pregnant cows divided into two groups 20 cows each, first group (A) received 15 mg of prostaglandin analogue loprosteol (Prosolvin\*) depending on the presence of the corpus luteum (CL) their ovaries, while the second group (B) received two injections of 15 mg loprosteol each at (11) days apart. Oestrus was appeared on those injected cows at 48-72 hr in group (A) and at the same time from the second injection in group (B), signs of oestrus were mentioned.  Eleven cows of group (A) showed signs of heat at 48hr, while 4 cows showed same signs at 72 hr, but 4 cows showed no signs at 48-96 hr.  Fourteen cows from group (B) showed signs of oestrus at 48 hr from second loprosteol injection and 5 cows at 72 hr, while one cow showed no signs.  The study showed that, the two PGF2α injections at 11 days interval increased the number of synchronized cows from that of one injection. | | | | | | Abstract |