EFFECTS OF BOVINE SOMATOTROPIN ON CHANGES IN UDDER DIMENSIONS AFTER CE~SATION OF MILKING IN WEST AFRICAN DWARF GOATS

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ABSTRACT

A study was conducted to determine the effects of bovine somatotropin (bST) on changes in udder dimensions (UD) including udder length (UL), udder width (UW), udder circumference (UC) and distance between teats (DT) after cessation of milking in twelve West African Dwarf (WAD) goats, which were divided equally into four treatment groups, each comprising three does. The first group (control, To) received no bST while the other groups received bST (T_1^r, 20 mg; T2,40 mg; T3,60 mg) injected at 2-week intervals commencing from the 5th week postpartum for 8 weeks. Does were milked twice daily (7:30 am and 7:30 pm). Twenty four hours after the twelfth week, measurement of UD commenced for 35 days. The results revealed that UL, UW, UC and DT were significantly ($p<0.05$) influenced by bST dose, day after cessation of milking and parity and the UD increased with increased doses of bST. There was maximal distension of udder by day 3 to 5 in treated goats than in the control which was on day 2 before declining progressively up to 35th day after cessation of milking. This showed a greater capacity to retain secretions as explained by the larger udder size. Th"-ef~~3, the administration of bST to WAD goats during lactation extended its effects on mamnMy glandS after cessatior of milking and slowed down the rate of udder regression, thus, enabling the potential of bST treated goats for greater milk synthesis in the next lactation cycle.

Keywords: Bovine somatotropin, udder dimensions; WAD goats; WAD sheep