

## SUMMARY

In this study, it was aimed to investigate the effect of deslorelin, a GnRH analogue - which can postpone the sexual activity in some male animals- on the levels of plasma testosterone, testes size and side effects in Angora goat bucks. As a animal material, 12 Angora male goat aged between 2-5 years and provided by Lalahan Livestock Central Research Institute. Animal were divided two equal groups. Deslorelin implants were replaced under the ear skin of goats (Group I, n=6) and left for 15 days. The animals of control group (Group II, n=6) had placebo treatment. After removal of implants, testicular size and epididymal and plasma testosterone levels were determined. Plasma testosterone levels of deslorelin ( $4.08 \pm 1.9$  ng/ml) estimated on 3rd day before implant removal was significantly higher than the those of control group ( $6.79 \pm 5.0$  ng/ml) ( $P < 0.05$ ). Plasma testosterone levels estimated on day 6 th, ( $P < 0.01$ ), day 9th ( $P < 0.05$ ), day 12th ( $P < 0.01$ ), day 18th ( $P < 0.05$ ) and day 21st ( $P < 0.05$ ) after removal of implant were significantly different between the groups. The values of testicular volume, length, diameter, radius and epididymal measurement were not significantly different ( $P > 0.05$ ) in groups. No side effects were seen during the deslorelin treatment, and sexual activity returned to normal after removing of implants, therefore it was suggested that deslorelin could be safely used as a successful anti-fertility agent.