|  |
| --- |
| University of Baghdad  |
| Veterinary Medicine | College Name |
| Surgery & Theriogenology | Department |
| Najlaa Sami Ibraheem  | Full Name as written in Passport |
|  | e-mail |
|  **Professor**  |  **Assistant Professor** |  **Lecturer** |  **Assistant Lecturer**  | Career  |
|  PhD  |  Master  |  |
| Effect Of Hemicastration Of Young Buck On Puberty And The Level Of ICSH And Testosterone | Thesis Title  |
| 2006 | Year |
| This study was included two main experimental work, the first one which carried out on mature Iraqi bucks, while the second one contained young kids.**Experiment No.1** : Twelve (12) mature Iraqi Bucks aged 2.5 – 4.5 years were obtained from the goat flock of Colloge of Veterinary Medicine . These animales were trained for seminal collection by artificial vagina, once a week and extended for twelve months. These animales were divided into two equal groups; the first group was hormonal treated with five doses of GnRH (40µg) I/M injected with an intervales of 48 hrs. among the doses. The level of ICSH and Testosteron hormones in the serum were measured. Semen was diluted by Tris diluent at a rate of ( semen 1 : diluent 9 ). The diluent semen samples were divided in to two equal parts; the first one kept in the referegeretor 4cº, while the second ones kept in the water bath 37cº to find out the motility rate up to 50 %. The results reveled the fowlloing : 1. The highest level of ICSH and Testosterone in serum (0.73 , 3.07 ng /ml respectively) recorded on July which were significatly ( P< 0.01 ) higher compered with their levels during winter monthes.
2. By injection of GnRH (40µg) for six bucks cause significatly increase in ICSH and Testosterone levels in the serum (3.45 and 8.05 ng /ml respectively ) compered with the control group .
3. Bucks treated with hormone cause an improving in semen physical charactersitics compered with those non treated .
4. Month of collection has significatly ( P< 0.01 ) effect on semen physical charactersitics.The best results obtained in July and August which the volume was(1.05 ),(0.97)ml respectively,while sperm concentration were (3.40),(3.34) bilion/ml respectively , however the sperm mass and individual advanced motility was ranged between (85-86%).
5. The results showes significantly increas in the duration of the spermatozoa which kept alive in water bath(37ºc) for 69 h. compered with the control group 58 h. While the duration of the spermatozoa which kept alive in the refregerator (4ºc) for the treatment & control group was 25 & 11 h. , but no significant differences was obtained.

The mating percentage reached 100% while the kidding percentage was 90% for does those treated with vaginal sponges contain 40 mg of progesterone and injected with 40µ GnRH before inseminated with the treated bucks in addition to their semen quality when kept in water bath or referegeretor**Experiment No.2:** Twenty four kids (24) goat were used. Six kids at age of 6-7 month were trained for semen collection by using artificial vagina , at age of 9-10 month it could be obtained semen from those males to evaluate the physical characteristics of the semen . Testis mesurment and sexual behavior were taken and noticed at different periods at the study. Surgical hemicastration for 10 kids at age of 8-10 weeks was done for the left testis , at the same time swaps from epididymus and tissue from testis were taken . At age of 14-16 weeks five & four kids were intramuscullary injected with five doses of GnRH ( 10µ each). After hemicastrated and hormonal injection, blood samples were taken to assess the Levels of ICSH & Testosterone hormone. Drops from seminal fluids were taken directly on glass slides and stain. At age of 18-20 weeks second surgical operation for the right ones was done for 6 males of different groups , and smears samples were taken .the results showed the following : 1- The average of the removed testis weight was 13.28 g. , length and diameter were 4.31 & 3.50 cm. Respectivly. The epididymus length was 6.02 cm, the tail length was 1.31 cm. it can’t obtain any sperm in the smears which taken from epididymus or testis at 8-10 weeks old . 2- The hemicastrated kids showed better sexual behavior and numbers of spermatozoa were found on slides in collected seminal drobs indecated puberty age .3- Data analysis showed that male of 1.4 – 1.6 years old could produced semen quality simillar to that produced from adult bucks , therefor , it could be used such males at this age to inseminate females. 4- It can be intiate the early puberty stage by removing one testis and/or GnRH injaction of Iraqi kids at age of 14 -16 weeks.  |  Abstract  |