SUMMARY

SUMMARY

Recently , the attention of many institutes has been focused upon certain materials extracted from plants that show an activity similar , in many respects , to oestrogens and to which the term phytoestrogens is given.

Serious breeding problems , such as infertility and other reproductive disorders , has been attributed to the presence of these oestrogen like compounds incorporated in the food of farm animals .

One of these prevailing plants is the Trifolium alexandrinum **(Berseem)** which is considered the most important local food stuff for animals . B - sitosterol is the most potent member of phytoestrogens which is isolated from berseem . Hence , the present experiments have been conducted in order to study the effect of B-sitosterol on the fertility of female rats .

Some histological studies were carried out to show the effect of maternal administration of different doses of B-sitosterol injected subcutaneously at different durations on the implantation of rats (between day six to day nine of pregnancy) and on the ovaries and uteri of mature female rats with a state of failure in implantation . Also , the effect of B-sitosterol dose and time factor on the ovarian follicular distribution was also studied. Estimation of the FSH , LH ,

Prolactin , oestrogen and progesterone were carried out in one of the groups that failed to conceive under B-sitosterol treatment .

In this study female albino rats were divided into four groups as follows :

Group I (Text. Fig. 1) :

It consisted of seven subgroups of intact , untreated , pregnant females . Animals were killed at 12hr intervals beginning 129 h p.c. (day 6 at 10 a.m) to 201 h p.c. (day nine at 10 a.m)

Group II (Text. Fig. 2) :

It consisted of 3 subgroups of pregnant female rats which were treated S/c with 350 ug B-sitosterol in 1.0 olive oil for different durations and their embryos at day 7 at 10 a.m (153 h p.c) and day 9 at 10 a.m (201 h p.c) were studied .

Group III (Text. Fig. 3) :

The mature females in this group were assigned to 2 subgroups according to the duration of treatment. The animals in each subgroup were treated S/c. with different doses of B-sitosterol (50 ug, 100 ug, 250 ug and 350 ug in 1.0 olive oil.) for 7 and 30 days as a daily injection. After the end of each period , the animals were allowed to mate with normal males. The vaginal plug was not recorded and the uteri and ovaries were taken and prepared for histopathological examination .