SUMMARY
1) The need for an economic, safe and easily administrable oral contraceptive is very well recognized. Many hormonal preparations are available for the purpose, but they are not free from side-effects. Hence, the search for a suitable product from indigenous medicinal plants which could be effectively used in place of pill is being pursued in a number of research centers. From ancient times, Ayurvedic physicians are using many plant products for contraceptive measures. Hence it was our interest to check the antifertility effect of Cyamopsis psoralioides in male Swiss albino mice.

2) The *Cyamopsis psoralioides* pods were purchased from the local market of Mysore, Karnataka, India. The fresh pods were ground in a grinder and mixed with 90% alcohol (500ml), transferred to a conical flask and tightly covered with aluminium foil, stirred at a constant speed for 12 hrs using magnetic stirrer and then subjected to soxhlation. The required doses of extract were freshly prepared by dissolving it in the appropriate quantity of sterile double distilled water. Adult (age 12-14 weeks) male laboratory mice of the Swiss strain, weighing 30-40 g, were used in the investigations. Mice were maintained under hygienic conditions in well-ventilated room with 12-h photoperiod (8 a.m. to 8 p.m.light) and were fed pelleted food, drinking water was available ad libitum.

3) *Cyamopsis psoralioides* is also called as Guar pea which helps n the controlling the cholesterol, diabetes and obesity etc. The extract were dissolved in 0.1 ml of double distilled water and administered orally for 20 and 40 days at the dose level of 200 and 400 mg /kg body weight and some of the animals from all the groups were allowed for 30 days without any
treatment to check the reversibility. Fertility test was done at the ratio of 2:1 at the end of the experiment.

4) The ethanol extract of Guar pea gave positive result to the Alkaloid, Steroid, Saponin, Flavones, Oils and Fats, these compounds will helps in controlling the fertility in male mice.

5) At the end of the experiment after 24 h of the last dose of the treatment the animals were autopsied, the blood was drawn from the heart to check the testosterone level. From one part of the animal, testis and other accessory reproductive organs were taken for the histological study and from the other side, the organs were kept in -20ºc for the biochemical study like protein, cholesterol, glycogen and ascorbic acid.

6) The body weight was checked intermittently throughout the experiment to know the toxic side effect. The reproductive organs were removed from the fat and weighed to the nearest milligram.

7) In all the group animals, body weight did not change significantly when compared to the control groups. In Group I animals, we did not see statistically significant difference in fertility test; whereas in case of Group II animals, 50% reduction in fertility was seen when compared to the control groups. In Group III and Group IV animals, the fertility rate was reduce to 50% and 100% when compared to the control groups.

8) The sperm count, abnormalities of sperm and testosterone level did not show any statistically significant difference when compared to the control animals. Whereas, in case of Group II, III and IV animals, statistically significant difference was seen.

9) The biochemical study was done for Protein, Glycoge and Ascorbic acid, from testis, epididymis and vas deferens. Cholesterol estimation was done only in testis and epididymis. Group I animals did not show any statistically significant difference when compared to the
control animals. Whereas in case of Group II, Group III and Group IV animals statistically significant difference was seen when compared to the control animals.

10) In Group I animals, the diameter of the seminiferous tubule and Leydig cell did not change significantly when compared to the control animals; whereas in case of Group II, Group III and Group IV animals statistically significant difference was seen when compared to the control animals.

11) In reversibility experiment, all the treated groups regained their fertility after the withdrawal period.

12) From the above results we can use the ethanol extract of *Cyamopsis psoralioides* as antifertility agent in male system.