6. SUMMERY AND CONCLUSION

The present work was carried out at the Rabbitry of Zankalon (Sharkia) and Laboratory of Anima Production Department, Animal Production Research Institute at Dokki, Giza, Egypt during the year of 2001.

The aim of this experiment was to investigate the effect of replacing clover hay with graded levels (10, 20 and 30%) of either potato peel or coffee pulp in growing rabbit diets on their performance, feed utilization, nutrients digestibility, nitrogen balance, carcass traits and some biochemical blood plasma parameters.

A total of 210weaned NZW rabbits aged 5 weeks old with an average unitial LBW of 520.78g were used in this study. Rabbits were randomly distributed into seven groups of 30 rabbits, each with nearly similar LBW. Each group of rabbits was randomly assigned to one of the experimental treatments (diets).

Seven pelleted diets were used in this study. The control diet (diet 1) contained 30% clover hay as the main source of CF. Diets 2,3 and 4 contained 10, 20 and 30% potato peel replacing 33,66 and 100% of clover hay in the control diet, respectively, whereas, diets 5, 6 and 7 contained 10, 20 and 30% coffee pulp replacing 33,66 and 100% of clover hay in the control diet, respectively. All diets were isonitrogenous and isocaloric and formulated to ensure adequate supply of all nutrients recommended by **NRC (1977)and Cheeke (1987)** for growing rabbits.

Results of this study could be summarized as follows:

1- Rabbits of 10% potato peel fed group recorded the highest LBW at 13 weeks of age followed by those of 10% coffee pulp fed group with no significant differences. Whereas, rabbits of 20% coffee pulp fed group achieved the lowest ($P< 0.05$) LBW. However, the differences in LBW between rabbits fed the control diet and those fed either 30% potato peel or 30% coffee pulp were not significant.

2- Rabbits fed either 10% potato peel or 10% coffee pulp recorded higher ($P< 0.05$) daily WG than that of all other treatments, during the whole experimental period (5-13 weeks of age), while rabbits fed 30% coffee pulp achieved the lowest ($P<0.05$) one .

3- Values of daily FI during the whole experimental period (5-13 weeks of age) claimed that rabbits of the control group and 30% coffee pulp fed group consumed the lowest ($P<0.05$) daily FI, while those fed 10% potato peel and 10% coffee pulp recorded the highest daily FI.

4- The best ($P<0.05$) FC value was achieved by rabbits fed the control diet, followed by that of rabbits fed 10% potato peel and 10% coffee pulp. However, the differences were significant ($P<0.05$) between these three treatments. Rabbits fed 30% coffee pulp exhibited the poorest ($P<0.05$) FC value, followed by those fed 30% potatos peel, with significant ($P<0.05$) differences.

5- Rabbits of the control treatment recorded the lowest DM, OM, EE and NFE digestibility values and the highest CF digestibility one. Whereas, rabbits of potato peel

treatments (10, 20 and 30%) achieved the highest digestibility values for all feed nutrients except NFE digestibility. Moreover, coffee pulp treatments slightly improved the digestibility of DM, OM, EE and NFE as compared with those of the control treatment. Feeding values of the experimental treatments revealed that the control treatment recorded the highest TDN and DE values, while 10% coffee pulp treatment showed the lowest ones. The highest DCP % was achieved by the 20 % potato peel treatment and the lowest one was recorded by the control treatment. However, the differences in feeding values (TDN, DCP and DE/ Kcal/kg) due to treatment effects were not significant.

6- Nitrogen balance was positive for all tested diets. In general, rabbits fed on diets contained 10 or 30% potato peel showed the highest values for N- absorbed g/day and N- balance as g/day, % of N- intake and N- absorbed, whereas, rabbits fed on diets with 10, 20 or 30% coffee pulp recorded almost the lowest values.

7- Generally, feeding rabbits on diets contained different levels of potatos peel slightly improved most carcass traits percentages as compared with the other experimental treatments. Also, percentages of most carcass traits for rabbits fed different dietary coffee pulp levels were similar or slightly better than those of the control group.

8- Dietary treatments had no significant effect on chemical analysis (moisture, EE, CP and ash) of boneless meat of rabbits.

9- Biochemical blood plasma parameters at 13 weeks of age for growing NZW rabbits fed different levels of either potato peel or coffee pulp were significantly higher than those of the control, except for GPT, alkaline phoshatase and creatinine levels.

10- The incorporation of different levels of potato peel or coffee pulp in the rabbit diets decreased the feed cost/ kg WG as compared with the control except for 30% dietary potato peel level. However, the diets recorded the lowest feed cost/kg WG values, achieved the highest (best) EEf values. Therefore, the diet contained 10% potato peel recorded the best EEf value and that with 30% potato peel showed the poorest one, indicating that EEf values decreased with increasing the dietary level of either potato peel or coffee pulp.

Generally, from the results of this study it could be concluded that potato peel and coffee pulp could be safely and economically used as an alternative roughages up to 10% of the diet to replace 33% of the clover hay in the diet of growing NZW rabbits without any adverse effect on the performance and carcass traits of rabbits.