

**Study of the Combination Effect for Certain Blend of Some Extracts of
Hypoglycemic Medicinal Plants on the Normal and Diabetic Rabbits and the
Preparation of these Blends as Tablet Form.**

A Thesis

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Summary

Combined effect for the extracts of some hypoglycemic plants, which have the ability to reduce the blood glucose level through the association in a defined blend within the normal and alloxan-induced diabetic rabbits, had been studied. The hot water extract of the *Lupinus termis* (L.), the aqueous extract at 70°C of the *Trigonella foenum graecum* (L.) leaves, the 50% ethanol water extract of *Trigonella foenum graecum* (L.) seeds and saponin extract of fruit rind *Citrullus colocynthis* (L.) Scharde have been chosen due to their induce in reduction the blood glucose level more than the other extracts of these plants, many blends of the chosen extracts with different ratios had been prepared. Their ability to reduce the blood glucose level was found out that the most active blend have the extract ratios as extract of *lupinus termis* seeds 40%, extract of *Trigonella foenum graecum* leaves 40%, extract of *Trigonella foenum graecum* seeds 18% and extract of *Citrullus colocynthis* fruit rind 2%. This blend was more active when it was alkaline than that when it was acidic or neutral.

The test of acute toxicity for the alkaline active blend had been done on the experimental mice, and the oral LD₅₀ for the half of the experiment animals was 3.7 gm/kg, the female were more effected than male. Some of the obvious changes in the mice behavior were recorded and the side effects of the alkaline active blend were recorded too.

The influence of the alkaline active blend on the diabetic rabbits by alloxan had been studied.

The study involved giving a dose of 350 mg/kg, this dose reduced the blood glucose level for 24 hr., without reaching the normal level, thereafter the treatment continued for two weeks later by giving the same dose per day and after this period the blood glucose level in rabbits reached its normal level. The result of oral glucose tolerance test proved that the alkaline active blend was contributed in consumption the glucose inside the body of the treated rabbits.

The active alkaline blend was formed as a tablet form, which represent the preferable form of oral dosage and perfect for diabetic patient, sodium aluminum silicate was used as additive in the tablet with ratio of 40%. The tablet is effected by light but it is stable against moisture and mechanical chock at room temperature.