

ABSTRACT

An Investigation into the effects of the Annatto
(Bixa orellana) on the dog

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It is becoming increasingly important for health workers to document the chemical, biochemical, pharmacological and biodynamic properties of herbal remedies used by local communities, so that a scientific evaluation can be made of any therapeutic values, (or lack of them), of such plants, as well as possible toxic side effects.

This thesis examines one such herbal remedy, the annatto plant, which is commonly used to treat diabetes, and investigates its effects on the dog. Studies were done of the effects of the plant on blood glucose levels, and its physical effects on the liver and pancreas of the dog.

It was found that two distinct antagonistic principles are present in the annatto seed, which affect

glucose tolerance. One principle causes impaired glucose tolerance such that hyperglycaemia occurs after a glucose load. The other principle causes a transient hypoglycaemia after a glucose load. It was also found that the hyperglycaemic fraction causes some hepatic and pancreatic damage when given in large doses.

Much more work needs to be done on this plant in order to characterize more fully the properties revealed in this study, to assess the effects of the plant on the diabetic populations who take it in hopeful search of a cure for their disease.