



Control Of Ticks Using Utupa In Zebu Cattle

28. Nyailigamba

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Introduction:

The main reasons for tick control are to protect hosts from irritation and production losses, formation of lesions that can become secondarily infested, damage to hides and udders, toxicosis, paralysis, and of greatest importance, infection with a wide variety of disease agents. Control also prevents the spread of tick species and the diseases they transmit to unaffected areas, regions, or continents.

The economy of the country depends heavily on agriculture which accounts for nearly one half of the GDP and employing more than 80% of the force, contributing to more than 85% of the country export. Most of the Lake Zone rangelands of Tanzania are inhabited by agro – pastoralists who depend on substance production.

Their livelihoods are mostly dependent on live stock. Among the major constraints to livestock productively in agro – pastoral areas are ticks and tick borne diseases (TBDs) and Tsetse flies and trypanosomes. These pastoralists are always at the mercy of insects and diseases.

Of the diseases caused by ticks and TBDs, East Coastal Fever (ECF, theileriosis), anaplasmosis, babesiosis and cowdriosis are among the most important and widespread. This therefore calls for the need to come up with solutions that are cost effective to the resource poor farmers. Ticks are the problem in dairy production causing significant economic losses mainly in Zebu cows. The teats are damaged resulting in a reduction in milk yields which is a cheaper source of protein in rural resource – poor farmers. The small holder farmers, being ticks using the conventional acaricides. It is therefore imperative to establish the effectiveness of using *Tephrosia Vogelii* in controlling ticks. However, there is little documentary evidence demonstrating the potency of *Tephrosia Vogelii* utilization in tick control.



MATERIALS AND METHODS

Fields trials

Three herds were selected for the study which was ½kilometre apart and categorized as group A, B, C and D. In each 5 cattle were selected and tagged. Then group A was sprayed with 50g/100ml *Tephrosia Vogelii* extracts, group B was sprayed with 50g/150ml *Tephrosia Vogelii* extracts and group C was sprayed with 50g/200ml *Tephrosia Vogelii* and group D was not sprayed or treated with *Tephrosia Vogelii* extracts for the whole period of the study. It took only a week and the number of ticks was counted.

Extraction methods *Tephrosia vogelii*: (utupa)

Fresh leaves of *Tephrosia Vogelii* were collected and grinded into 3 sets of poultice pastes of 50g each. 50g of *T.Vogelii* pastes were soaked in 100ml water. The soak was done 12hours before use. Then the ticks were damped into a solution and were found dead a few times.

Experimental design:

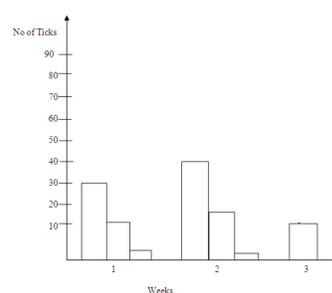
A completely randomized design will be used. Treatment concentrations were randomly applied to 30 animals of which 20 were treated with *T.Vogelii* water mixture and the other 10 were treated with conventional acaricide.

Data analysis:

Chi Square technique was used to analyze data for difference between the treatments from the control treatment using the Statistical Package for the Social Sciences.(SPSS)



Group	No. of Ticks before spray	Treatment	Number of Ticks		
			1 st week	2 nd week	3 rd week
A	80	50g/100ml water	30	10	2
B	90	50/150ml water	40	13	1
C	42	50/200ml water	10	0	0
D	Unsprayed	Unsprayed	50	55	40



Conclusions:

At first we had the hypothesis of whether *Tephrosia Vogelii* (utupa) may be the cure or not to those ticks attacking cows and the result was that it is a real cure for ticks. The hypothesis was actually supported by the Young Scientists Tanzania. The results were very interesting and conclusive because the ticks were decreasing as the time went after the experiment or after we sprayed *T. vogelii* on cows and therefore it is now better that it can be used by agro – pastoralists instead of buying or using much money in buying medicines for treatment. The future direction or plans is to get support such that this *Tephrosia vogelii* is used and people enjoy our creativity instead of investing much money on buying those medicine for treating their cows.

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Further information:

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