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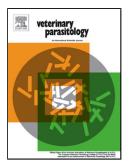
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In vitro bioassays used in evaluating plant extracts for tick repellent and acaricidal

properties: A critical review

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Highlights for review

Ticks cause enormous problems in animal production especially as disease vectors

• There is an increasing resistance of ticks to acaricides used to combat ticks

Important acaricides have been discovered in plants used traditionally

Many different bioassays are used making comparisons difficult or impossible.

Complications with different in vitro bioassays are discussed and proposals are made

Abstract

Ticks are haematophagous arthropods which rank closely with mosquitoes in their capacity to

transmit disease pathogens of importance to animals and humans. Current control of ticks is

based on the routine use of synthetic chemicals administered to animals or their environment.

However, years of use and overuse of these chemicals have resulted in the development of

resistance in these parasites and negative environmental impacts, hence the need for cheaper,

safer and more environmentally friendly alternatives with alternate modes of action. There has

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