

FOREWORD

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Tick infestation of livestock is a problem of immense magnitude in Africa. The blood loss and anorectic effects arising from infestation impose debility on animals. Furthermore, during feeding, ticks transmit many devastating diseases to livestock, especially heartwater, East Coast fever, babesiosis, anaplasmosis and streptothricosis, all of which cause high mortality in the animals. Ticks also cause severe damage to hides and skins as well as teats and udder, resulting in big losses in revenue and milk. Unlike all other continents and unlike the tsetse, in Africa the more than 160 species of ticks infest livestock in all climatic and vegetational zones and about 90% of the currently estimated 200 M cattle in the continent are infested with ticks, about 70% of them by multiple species.

The livestock production losses arising from tick infestation in Africa are the highest in the world and constitute an impediment to viable livestock production in the continent. The Food and Agricultural Organization (FAO) estimated in 1979 that the annual global losses in livestock production due to tick infestation was US\$ 7000 M, the African share of this loss being at least half of this figure. Unfortunately, this production loss is greatest in the low resource livestock farming system, which constitutes about 96% of the livestock farming in Africa.

Like elsewhere in the world, tick control in Africa relies mainly on acaricide application which, like other chemical pesticides, has several disadvantages, such as environmental pollution, development of resistance and the escalating costs. It is estimated that Africa spends approximately

US\$ 720 M annually for importing acaricides. This is an enormous financial burden especially considering that the acaricides are paid for in foreign currency. It is probably even more burdensome to the resource-poor farmers who pay the cost of dipping their livestock. This cost element, together with various logistical problems associated with acaricide treatment, have made the control of ticks in Africa by acaricides very unsuccessful and it is estimated that only 2% of cattle owned by the resource-poor farmers benefit from this method of tick control. From the foregoing, it is obvious that if ticks have to be effectively controlled in Africa, alternative methods of control, which use little or no acaricides, and which are environmentally friendly, economically-affordable and socially acceptable have to be developed.

The objective of the International Symposium on Integrated Tick Management in Africa was to bring together tick scientists from all over the world to share their experiences on problems of tick infestation, tick control by chemical acaricides, and on the emerging new technologies such as biological control, natural acaricides, anti-tick vaccine, and anti-tick pastures that can be used individually or in combination as an Integrated Tick Management strategy.

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