

A Review on Potential Utilization of Water Hyacinth (*Eichhornia crassipes*) as Livestock Feed with Particular Emphasis to Developing Countries in Africa

Authors : Shigdaf Mekuriaw, Firew Tegege, A. Tsunekawa, Dereje Tewabe

Abstract : The purpose of this paper is to make a comprehensive review on the use of water hyacinth (*Eichhornia crassipes*) as a potential livestock feed and argue its utilization as complementary strategy to other control methods. Water Hyacinth is one of the most noxious plant invaders of rivers and lakes. Such weeds cause environmental disaster and interfere with economic and recreational activities such as water transportation and fishing. Economic impacts of the weed in seven African countries have been estimated at between 20-50 million US\$ every year. It would, therefore, be prudent to suggest utilization as a complementary control method. The majority of people in developing countries are dependent on traditional and inefficient crop-livestock production system that constrains their ability to enhance economic productivity and quality of life. Livestock in developing countries faces shortage of feed, especially during the long dry seasons. Existing literature shows the use of water hyacinth as livestock and fish feed. The chemical composition of water hyacinth varies considerably. Due to its relatively high crude protein (CP) content (5.8-20.0%), water hyacinth can be considered as a potential protein supplement for livestock which commonly feed cereal crop residues whose contribution as source of feed is increasing in Africa. Though the effects of anti-nutritional factors (ANFs) present in water hyacinth is not investigated, their concentrations are not above threshold hinder its utilization as livestock feed. In conclusion, water hyacinth could provide large quantities of nutritious feed for animals. Like other feeds, water hyacinth may not be offered as a sole feed and based on existing literature its optimum inclusion level reaches 50%.

Keywords : Africa, livestock feed, water bodies, water hyacinth and weed control method

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