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IMPORTANCE OF ARECANUT SHEATH USED AS A CATTLE FODDER

Popular Article

Shashikumar^{1*}, M. Anantachar¹, M. Veerangouda¹, K.V. Prakash¹ and Prahlad²

¹Department of Farm Machinery and Power Engineering, CAE, Raichur ²KVK, University of Agricultural Sciences, Raichur, Karnataka *Corresponding author's E-mail: shashibtech935@gmail.com

KEY WORDS

ABSTRACT

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ARTICLE INFO Received on: 02.11.2016 **Revised on:** 05.11.2016 **Accepted on:** 06.11.2016 Arecanut palm (*Areca catechu Linn*) is a tropical crop and it is grown under variety of climatic conditions. The arecanut tree sheds about 10 sheaths per year hence total production of sheaths is around 4380 sheaths per year per hectare. Arecanut is an important commercial crop, considering its higher economic profitability and relatively low investment many farmers have replaced paddy cultivation with arecanut, resulting in shortage of paddy straw for its use as animal fodder. The sheath attached to the leaf of arecanut tree is not only used for commercial plate making. But recently the arecanut sheath was found to be need as a dry fodder for cattle, as an alternative to paddy straw.

Introduction

Arecanut palm (Areca catechu Linn) is a tall tree with slender erect, unarmed and solitary stem living for 60 -100 years. It is a single trunked palm that can grow up to 30 m height with a trunk of 250 - 400 mm diameter. It is grown in high rainfall area of 1500 - 5000 mm and it has been estimated to produce 2.5 - 8 kg of arecanut per palm annually. It has been frequently grown together with long and short term crop. It requires the optimum temperature range of 15.5 - 38 °C. In India, area under the crop is 0.2 Mha and producing annually 0.25 Mt of arecanut and majorly grown in southern part and northeastern region of the country. In India, Karnataka, Assam, West Bengal, Tamilnadu, Maharashtra and Andaman are major arecanut growing states having laterite, alluvial and clay loam soils. In Karnataka area under this crop is 2.11 lakh ha and producing annually 3.26 lakh tonnes of arecanut. Arecanut or Betelnut is the kernel obtained from the fruit of arecanut palm. The kernel shape is ovate. Arecanut is consumed by approximately 10 per cent of the world's population, comprising perhaps 600 million people. It had been estimate that arecanut use at 29.7 per cent and 37.8 per cent respectively among women and men over 35 years in Mumbai and 20 - 40 per cent of the population above the age of 15 years in India, Nepal and Pakistan. The cultivation of areca catechu is traditionally described as an intercrop in India, alongside the piper beetle. It has some beneficial parts, such as husk, leaves and sheath which can be used for different purpose. In this, arecanut leaf sheath is one of the important raw materials obtained from the arecanut palm. Leaf sheath obtained from the farm are highly heterogeneous having variations in structure, shape and thickness. The rear end is thicker and the two edges are thinner. Sheath of arecanut tree is a hard material (good tensile strength), slow in biodegradation and has low calorific value. Quality of areca leaf sheath varies with locations and seasons. Leaf sheath completely encircles the stem forming a protective covering for the developing inflorescence. Freshly fallen sheaths contain 55 - 60 per cent moisture. This reduces to 11 - 16 per cent after drying in open, under shade for 5 - 6 days. The sheath of an adult palm shows a concavity in the center. The outer surface of the sheath is greenish or brown, waxy and tough, while the inner surface is creamy in color and has a natural glossy finish. The constituents of the leaf sheaths are cellulose - 43 per cent, crude fibre - 33 per cent and ash - 5 per cent. From the manorial part of view, it contain N₂ - 0.7 per cent, P₂O₅ - 0.3per cent and K₂O - 1 per cent (Biddappa, 1960). The above

constituents of the leaf sheaths indicated that leaf sheath can be used for both fodder and manure purpose.

Conclusion

The arecanut tree sheds about 10 sheaths per year hence total production of sheaths is around 4380 sheaths per year per hectare (Gaikwad and Bhargav, 2012). In certain regions of Kerala and Karnataka leaf sheath is also used as cattle feed because arecanut is an important commercial crop, considering its higher economic profitability and relatively low investment many farmers have replaced paddy cultivation with arecanut, resulting in shortage of paddy straw for its use as animal fodder,hence the arecanut sheath was found to be used as a dry fodder for cattle, as an alternative to paddy straw.

References

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