PRESENT STATUS, PROBLEMS AND RESEARCHABLE ISSUES OF BETEL VINE (Piper betle L.) PRODUCTION WITH SPECIAL REFERENCE TO NORTHERN KARNATAKA

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ABSTRACT

Betel vine (Piper betle L.) is a perennial climber Betel vine (Piper betle L.) is a perennial climber cultivated for its leaf. In India, 55000 ha and in Karnataka 7143 ha area covered under this crop. This paper is the outcome of series of field visits made to the betel vine growing areas. Significant diversity observed in production aspects and also problems related to crop production. Lack of alternative standard for vine climbing, irrigation methods, fertigation, wilt, snail and un organized marketing are major problems in northern part of Karnataka. To solve these problems identified researchable issues are identification of alternative standard, standardization of fertigation schedule, integrated pest management practices and development of organized market.

INTRODUCTION

Betel vine (Piper betle L.) is known by its many names across the country and abroad. In Indian subcontinent it is known as pan in Hindi, Tambula in Sanskrit, Villayadela in Kannada, Vettilakkoti in Malyalam, Vettlli in Tamil, Tamalapaku in Telugu, Videch-pan in Marathi, Nagarbel in Gujrati and pan in Bangla It belongs to piperaceae family and is a perennial climber cultivated for its leaf. It is a shade loving plant and originated from Malaysia according to De Cando. Historically, the word pan in Hindi and other Indian languages is probably a derivative of the Sanskrit word ‘pan’ meaning leaf. It has been very intimately connected with the ancient Indian history, religion and culture as is evident by many references in the early Sanskrit literature (3000 BC), like Vedas, Ramayana, Mahabharata, Mahavansha etc. Marcopolo (1295 AD) took notice of the pan chewing habit of the people in south India. Over the centuries, pan chewing had become so prevalent that serving and chewing of pan had been raised to the level of a fine art at the Mughal Darbar, particularly during the Akbar’s regime. In course of time, offering the ‘bida’ of betelvine has become a symbol of offering and acceptance of mutual love and friendship. Betel vine has been under cultivation in India for centuries. In fact, no Hindu religious ceremony is complete without pan. It is also offered after lunch and dinner and also during other social get together.

Area and production of betelvine

In India, the major states producing betelvine include West Bengal, Maharshtra, Karnataka, Andhra Pradesh, Orissa, Tamil Nadu and Kerala. Haveri, Davanagere, Tumkur, Bagalkot, Bijapur, Belgaum and Chitradurga Districts are the major production areas in Karnataka. The area, production and productivity of betelvine are given in Table 1 (Anonymous, 2012). This paper discusses the present status of betelvine, problems faced by the growers and traders and the researchable issues to address those problems mainly in Northern parts of Karnataka comprising Haveri, Bagalkot, Bijapur and Belgaum districts. This paper is the outcome of series of field visits made to the betelvine growing areas; survey of sample group of 49 farmers representing four districts through a preset questionnaire and an interaction programme organized at University of Horticultural Sciences, Bagalkot by involving growers, researchers and officers from the Department of Horticulture. Essentially, betelvine is a small holder crop in this region owing to the intensive cultivation practices and the amount of labour involved in harvesting. The villages surveyed are given in Table 2. Betelvine is cultivated under partially shaded humid micro-climatic conditions. Intensity of light in the plantation is regulated by periodical lopping of branches. In northern parts of Karnataka shade is regulated just before the commencement of monsoon (May-June) by lopping the branches of live standards for optimum growth of vine.
Problems related to crop production

- Problems related to crop production
- Problems related to crop protection
- Problems related to post-harvest technology
- Problems related to marketing

Problems related to crop production

- Lack of standardized integrated nutrient management package and fertigation
- Reduced yield under drip irrigation system
- Reduced yield when the lowered vines are coiled and kept above the ground
- Drumstick: Weak standard (Difficult to maintain after 3 years), stem fly, aphids
- Sesbania: This standard is alternate host for aphids and powdery mildew which severely affects betelvine
- Erythrina: Though, it is a good standard, severely affected by gall wasp, very rare to find
- Ceiba: Though, it is very sturdy and hardy, as per the opinion of farmers, it is found exhaustive with respect to absorption of water and nutrients thus competing with betelvine for those resources. As its surface is smooth, which affects the anchoring of betelvine

Problems related to crop protection

- Phytophthora: As per the opinion of farmers, this problem is found severe during vine lowering (January – March)
- Stem and leaf anthracnose
• Powdery mildew incidence in ‘Kariyele’ variety (Bangla)
• Leaf curl due to aphids, mites and thrips
• Leaf eating caterpillar and defoliator
• Snails (Severe during rainy season)

Problems related to post-harvest technology

• Shorter shelf life of leaves specially during summer months

Problems related to marketing

• Highly unorganized marketing and non-scientific pricing

Researchable issues to address the above problems

• Standardization of low cost, effective and eco-friendly pest/disease management practices for both the standards and the crop
• Standardization of suitable packing method to extend the shelf life

Developmental issues to sustain the betelvine production systems

• Need to organize the growers by forming betelvine growers associations (BGAs) and federation for better marketing and bargaining power
• To promote area expansion, incentives and schemes to be formulated and implemented as in case of other horticulture crops through NHM/RKVY
• Centre of excellence for betelvine is the need of the hour for the betterment of betelvine growers

REFERENCES

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