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A HIGH YIELDING FORAGE GRASS FOR PROFITABLE DAIRY ENTERPRISE



HYBRID NAPIER

TAR - IVLP



ICAR RESEARCH COMPLEX FOR GOA
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INTRODUCTION :

Milk production in Goa is far below the daily requirement of the State. One of the reasons for this low production is unavailability of sufficient green forage particularly during summer months. The present cultivated forages not only yield less per unit area but are also of poor quality. It is therefore, necessary to intensify our efforts towards more efficient production of high yielding forage crops that would bring maximum outturn of forage with better quality from minimum land to improve milk production of the State.

INSTITUTION VILLAGE LINKAGE PROGRAMME

ICAR Research Complex for Goa is one of the Centres implementing the Technology Assessment and Refinement through Institution Village Linkage Programme (TAR-IVLP) successfully under National Agricultural Technology Project (NATP) from September 2000 in five villages of Goa viz., Pilar, Agacaim, Goa Velha, Priol and Veling. The problems about the agro-ecosystem in the villages have been diagnosed through suitable Participatory Rural Appraisal Techniques (PRA). The problems recognized with cultivation of forage crops in the adopted villages are as follows:

- * Limited area under forage crops
- * Lower yield of forages
- * Lower nutritive value
- * Lesser palatability



These problems are being tackled through the introduction of high yielding forage grass PBN-16 which performed consistently better at the Institute trials, in terms of yield, palatability and nutritive value.

CULTIVATION OF HYBRID NAPIER (PBN-16)

It is a vigorous, hardy, high yielding perennial grass and requires a warm and moist climate. Propagation is done by root slips and stem cuttings. In case of stem, it should be vertically planted with a minimum of one node inside the soil. The crop can be taken up to 3-4 years economically and hence requires a good land preparation. The root slip is to be planted at a spacing of 90 x 60cm. The crop responds better to irrigation and manuring. About 45kg N, 60kg P₂O₅ and 40kg K₂O per hectare as a basal dose and similar quantity after every six months is required to meet the nutrient demand. Further, 45kg N/ha as top dressing after each harvest is required. The crop is to be irrigated at 15-20 days interval during *rabi* and at 8-10 days interval during summer. There is no much problem of disease and pests in Hybrid Napier. The first harvest can be taken at 75 days and subsequently at every 55-60 days interval. About 5-6 cuttings can be taken in a year.

The performance of Hybrid Napier (PBN-16) was assessed at IVLP adopted villages Veling, Priol, Pilar, and Goa Velha. It suited well to the local conditions of these villages.

SALIENT FEATURES OF PBN-16

- * Good tillering
- * High yield (81.5t/ha/year as intercrop in coconut)
- * High leaf to stem ratio (0.49)
- * Highly palatable
- * Nutritious containing 5 to 7 percent crude protein with both calcium and phosphorus
- * Good for gaining live weight
- * Nutritive value can be improved by growing cowpea or any legumes in between



FARMERS' ASSESSMENT

- * High yield
- * Palatable to livestock
- * Good for gaining live weight/milk production

Thus, it is suggested that cultivation of hybrid napier forage grass need to be taken up by the dairy farmers of the State.

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