

## INVESTIGATION ON POTENTIAL UTILIZATION OF UNUSED LAND STRIPS IN MAHAWELI SYSTEM 'H' FOR FODDER GRASS VARIETY HYBRID NAPIER CO-3 PRODUCTION

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Total annual expenditure on importation of milk powder in Sri Lanka is 15 billion rupees. Therefore, enhancing nutrition of the animal is important to increase the milk production as a short term measure to reduce this expenditure. Main objective of the present study was to evaluate the performance of Hybrid Napier var.CO-3 (*Pennisetum purpureum X Pennisetum americanum*) on unused land strips or reservations of irrigation canals in the system 'H' of Mahaweli. CO-3 was cultivated on three selected locations along D5 distributary channel in Eppawala. Three reservations were selected as treatments such as, reservations on inside of the bank of irrigation channel (T1), on outside of irrigation channel-on flat terrain (T2) and outside of irrigation channel-on ridges (T3). First harvest was done at 60 days after transplanting where as 2<sup>nd</sup> and 3<sup>rd</sup> harvests were done at 45 days interval from first harvest and, dry matter yields were calculated. Sub samples were analyzed for chemical composition using standard methods. In conjunction with the field trial, a field survey was also done using randomly selected 70 dairy farmers with respect to livestock population, herd composition, productivity, feeds and feeding methods. Data were statistically analyzed using randomized complete block design using the SAS computer package.

According to the field trial, chemical composition of fodder was not affected by land type but total dry matter yield was significantly ( $P < 0.05$ ) higher in reservations inside the channel bank compared to other treatments. Sixty percent of dairy farms were located within 50 m distance from the irrigation channel. Eighty eight percent of dairy farmers reared cattle under semi-intensive system compared to 2.9% and 8.6% in intensive and extensive systems, respectively. Combination of stall feeding and tethered grazing was the most common feeding practice used in the area. According to the results, inside channel bank is the best land type for CO-3 fodder production when the production per unit area is considered.

**Key words:** Hybrid Napier var.CO-3, Dry matter yield, Chemical composition