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STUDIES ON THE EFFECTS OF FERTILIZER ON THE TOTAL DRY MATTER YIELD AND ALKALOID CONTENT DURING THE DEVELOPMENT OF CATHARANTHUS ROSEUS PART II APPLICATION OF FERTILIZERS, MANURES AND STRESS CONDITION

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A field trial was conducted with 3 replicates in a Randomized Complete Block Design (RCDB) with the following treatment: (a) Cattle manure (1500kg/ha); (b) N, P, and K (46kg, 46kg and 30.5kg/ha respectively; (c) N, P, K and Micro elements; (d) Cattle manure and Micro elements; (e) Stress condition (induced by pruning) and compared with no treatment, to determine their effects on the dry matter yields and the alkaloid contents of the Catharanthus roseus.

The fertilizer treatments were given at the time of transplanting and pruning was practiced at the 3rd month of maturity. The plants were analysed at the end of 4th, 7th and 10 months of maturity.

The following conclusions could be drawn from this study.

(a) As a result of pruning the dry matter yield of the roots decreased while the alkaloid content increased (b) Mixtures of cattle manure of NPK with micro elements gave higher dry matter and alkaloid yields than, when used alone (c) NPK and micro elements gave the highest increase of dry matter and alkaloid contents (d) Effect of NPK was observed to be higher than that of cattle manure.

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