

# EFFECTS OF THE SOME FOREST CONTEXT FACTORS ON THE GROWTH OF *Calamus tetradactylus* Hance IN LUC YEN DISTRICT, YEN BAI PROVINCE

Le Duc Thang, Pham Van Ngan, Nguyen Ngoc Quy,  
Dang Ngoc Vuong, Ha Tien Cong

## Summary

The *Calamus tetradactylus* Hance is one of the non-timber forest products with great potential for forest development in the direction of a new economy, generating early income and bringing high economic efficiency. In order to have a basis for applying appropriate silvicultural techniques to *C. tetradactylus* under the canopy of the forest, the study has evaluated the influence of some contextual factors on the growth of the *C. tetradactylus* in Luc Yen district, Yen Bai province. The results showed that context factors such as different altitudes, direction (East, West, South, North), different levels of slope and canopy clearly affect the biomarkers of diameter and length of the *C. tetradactylus* at the age of 1 and 2.5 years old. The *C. tetradactylus* is planted at altitude of < 300 m, in the West, with a slope 15 - 25° and the canopy cover from 0.3 to 0.5 is recorded as the best growth compared to the altitude, direction, slope and canopy cover rest. At the age of 2.5 years, the average survival rate reached 52.1 - 61.4%, stem with sheaths to about 0.86 cm in diameter; stem climbing to 0.94 m in length and average internodes to 16.6 cm in length, in which, 75% of the *C. tetradactylus* species surveyed had an average annual growth of  $\Delta Di \leq 0.44$  cm/year,  $\Delta Li \leq 0.54$  m/year and the average internodes to 17.5 cm in length.

**Keywords:** *Calamus tetradactylus* Hance, canopy cover, forest context, growth, Luc Yen.