

Participatory forage evaluation for integration in mixed crop-livestock-tree systems in Lao PDR: An entry point for sustainable intensification

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INTRODUCTION

- Cattle production in Laos has notably increased in the past decade, from 1.7 million in 2012 to 2.3 million in 2021^a.
- This suggests a continuous rise in livestock numbers, aligning with the government's efforts to boost cattle production in response to the growing regional demand^b.
- However, despite smallholders being the main players in livestock production, inadequate feed quantity and quality pose a significant challenge, particularly in the dry season.
- Cattle are typically raised in extensive systems, relying on natural/naturalized pastures and low-quality forages as the primary feed source^c.
- To fully leverage the potential for the regional market and enhance smallholder livelihoods, addressing the issue of inadequate feed is crucial.

OBJECTIVE

A farmer participatory forage evaluation was conducted in the northern, central, and southern Laos, to provide farmers with forage options for integration into their farming systems.

METHODOLOGY

- Demonstrations farms with 13 forages, including 8 grasses and 5 legumes, were established in Mok (North), Naxathong (Central), and Thateng (South) districts.
- Farmer field days were held with a total of 90 farmers, 30 from each district, who assessed forage growth, biomass production, and pest/disease incidence using a scale of 1 to 4.

RESULTS

- Farmers across three districts reported an overall preference for forage grasses over legumes, likely due to the higher biomass of the grasses.
- Most preferred grasses were *Urochloa* hybrids for their fast growth, high biomass production. For the legumes, Ubon stylo was scored as the highest in terms of farmers' preferences.

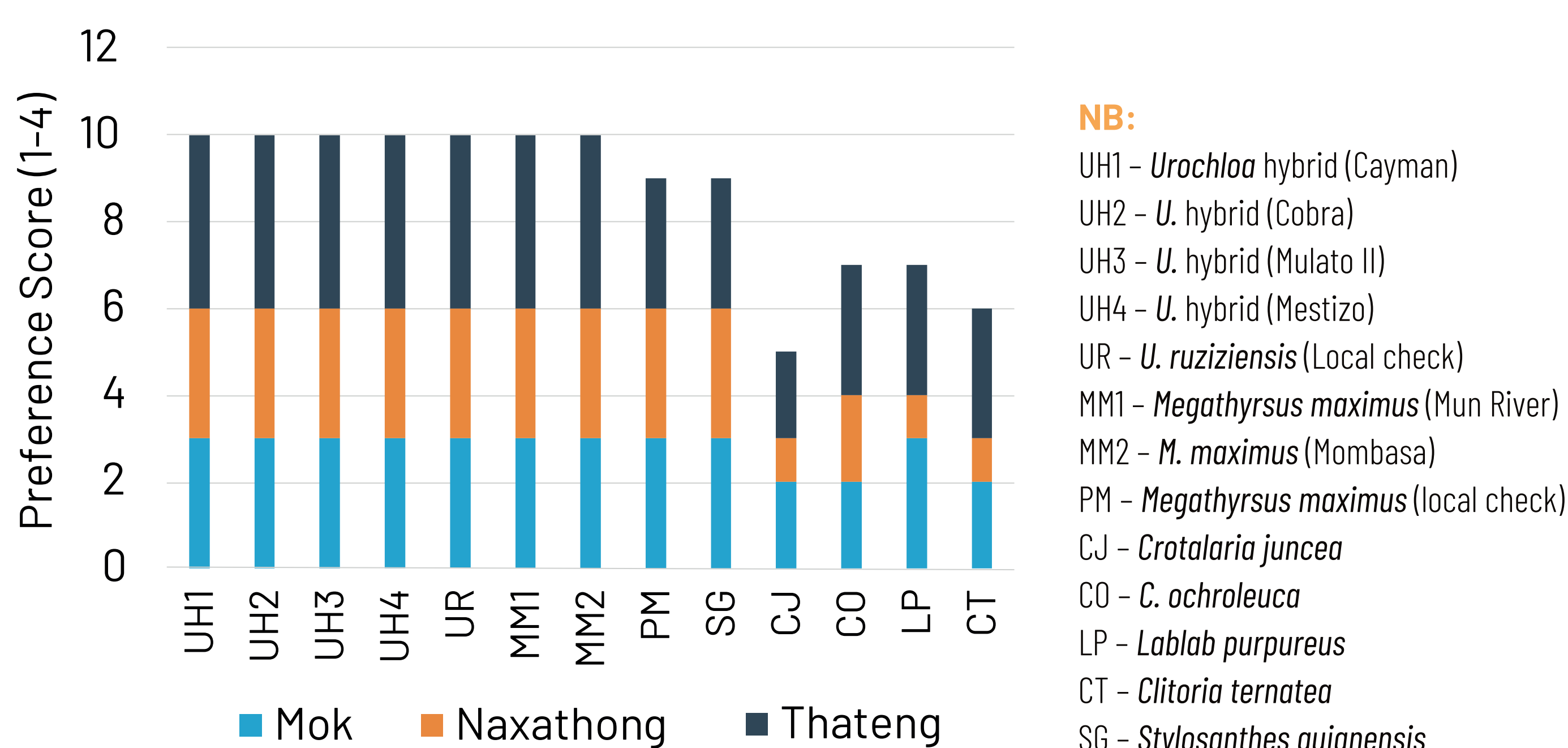


Figure 1. Farmers preference score for 13 forages, 3 months after planting in Mok, Naxathong and Thateng districts.

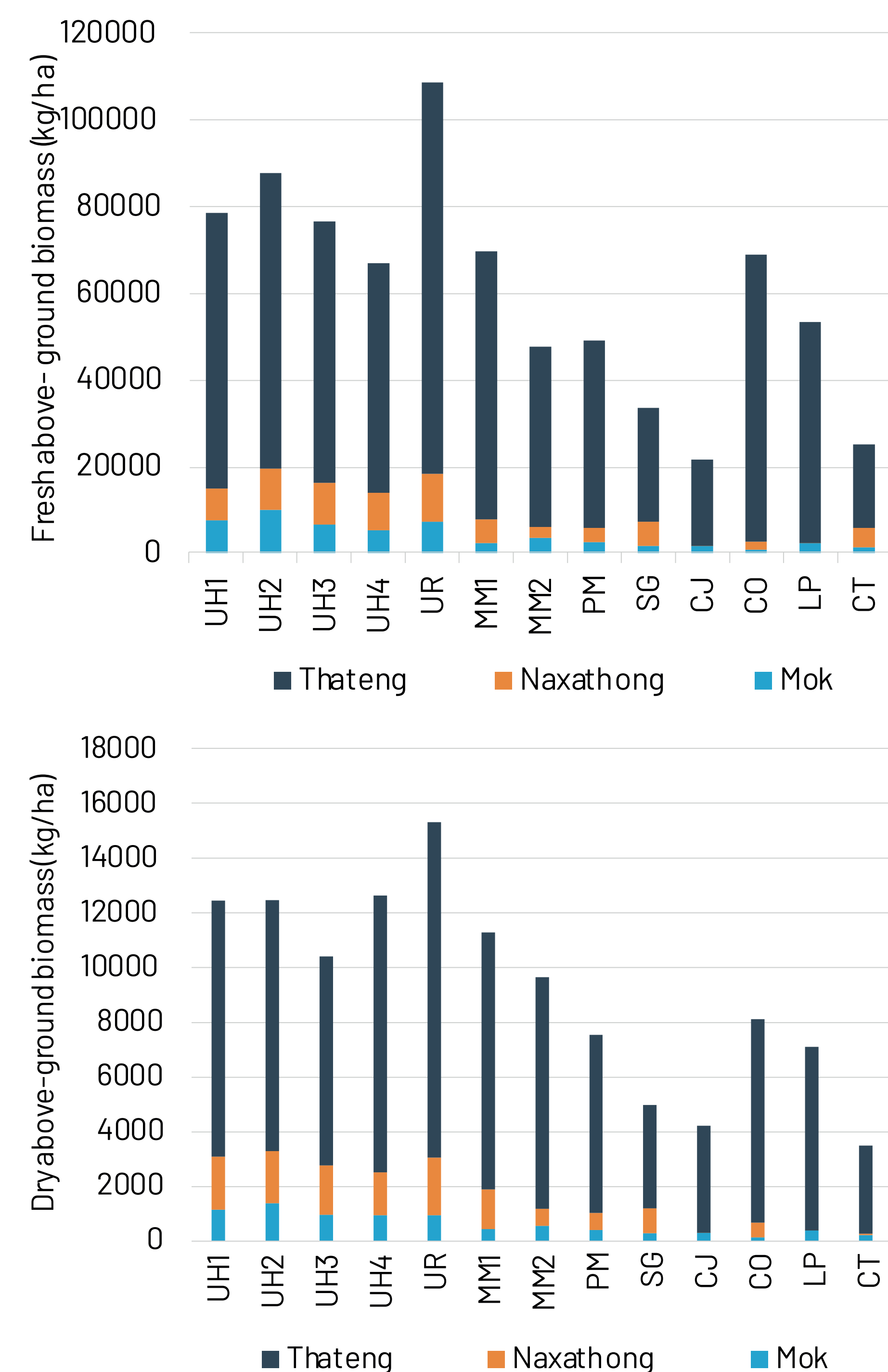


Figure 2. Fresh and dry above-ground biomass production.

CONCLUSIONS

- Although the evaluation is ongoing, initial results indicate the potential for selecting and integrating high-quality forage materials into Laos farming systems, to enhance livestock productivity, improve livelihoods, and offer environmental benefits.
- Moreover, establishment of seed systems is crucial to enable farmers to access their preferred varieties. Collaboration with national and local partners, the private sector, and farmers is essential to ensure sustainability of the seed supply chain.

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ACKNOWLEDGEMENTS

This work was conducted as part of the CGIAR Initiatives on Mixed Farming Systems. We also acknowledge the support of the District Agriculture and Forestry Office (DAFO) in Mok, Naxathong and Thateng districts. We thank all donors who globally support our work through their contributions to the CGIAR System.



POSTER PREPARED FOR
Tropentag 2024
September 11-13, 2024
Vienna (Austria)