

Fodder Species Adaptability and Potentialities

Southern Xayabury – Lao PDR

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Cattle breeding is presently extending...

Cattle fodder systems in the south of Xayabury can be characterised by limited management costs and low capital investment. Natural pasture lands provide the main fodder resources to the animals. Rice straws are also used to complete cattle consumption.

Genetic race improvement is frequently done by crossing local cows (identified as belonging to "Asian yellow" race) with Brahman genitors imported from Thailand.

A progressive deterioration of natural pasture lands can be observed: compacted soils related to overgrazing, qualitative and quantitative decreasing of fodder resources (generalisation of *Chrysopogon aciculatus* and/or *Imperata cylindrica* cover).

Confronted to such situation, an increasing number of farmers express their wish to improve fodder resources. Initiative of implementing pasture areas are steadily raising.

OBJECTIVES

- To analyse fodder species adaptability according to the various landscape and soil units.
- To define and propose to farmers solutions for pasture lands management in order to improve both qualitatively et quantitatively fodder resources.

MATERIALS and METHODS

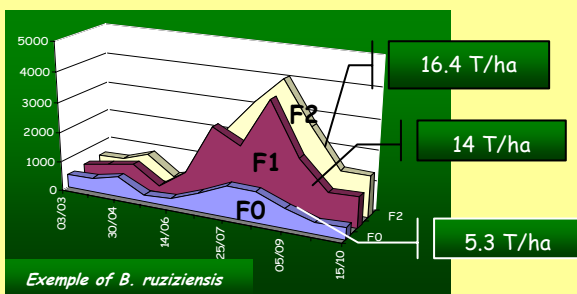
Five fodder species collections from 0.3 to 0.8 ha have been implemented. The following species were tested: *B. ruziziensis*, *B. humidicola*, *B. decumbens*, *B. brizantha*, *B. dictyoneura*, *Panicum maximum*, *Andropogon gayanus*, *Paspalum atratum*, *Centrosema pascuorum* and *Stylosanthes guianensis*. (coming from Thailand, NAFRI-CIAT/FSLP projects, Southedge Seeds...).

The various species were conducted under 3 different levels of mineral fertilisation (F0, F1 and F2) with 3 replicates of 4 m² for each elementary plot (specie x fertilisation level). Every 21 days, biomasses were slashed, weight and then exported.

In parallel, a network of 50 pilot farms was created to analyse new fodder systems introduction with and on-farmers fields situation.



POTENTIALITIES OF TESTED SPECIES

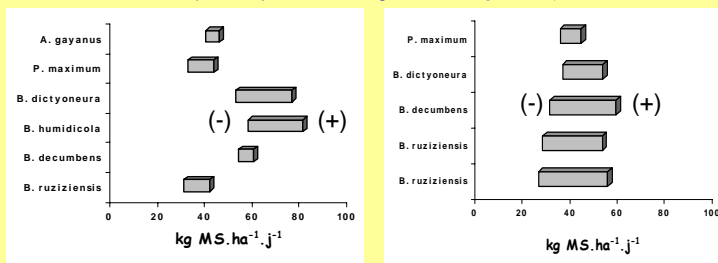


Dry biomass evolution on granite rocks

F0 : no fertilisation - F1 : 300 kg/ha of 9-24-24 + 50 Kg N.

F2 : 600 kg/ha of 9-24-24 + 70 kg N

Daily consumption of a 300 kg cow = 7,5 Kg/dM/day



Sandstones

Basic soils

Daily growth in between March and October 2002 (kg DM/ha/d) with (+) and without fertiliser (-)

TECHNICAL ASSISTANCE TO FARMERS NETWORKS FOR FODDER IMPLEMENTATION AND MANAGEMENT

• Assistance to farmers for fodder seeds provision, overgrazed pasture lands regeneration and management in the south of Xayabury

• 4 species presently adopted by farmers : *B. ruziziensis*, *B. humidicola*, *Panicum maximum* and *Stylosanthes guianensis* (implementation by seeds or root cuttings according to species)



Farmer fields visit



Cuttings of *B. humidicola*



B. Ruziziensis raining season



P. maximum dry season



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