



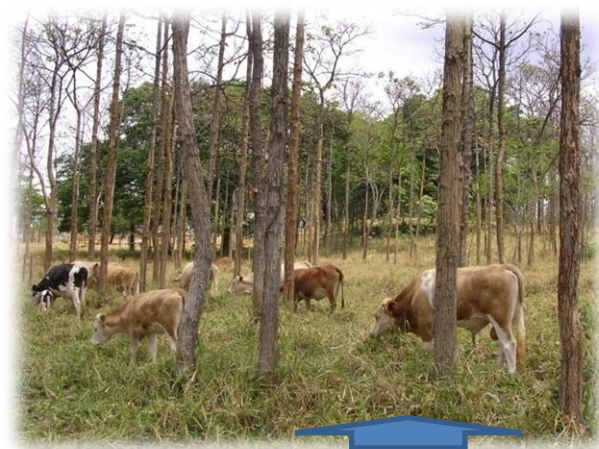
Prof. Rogério M. Mauricio

## BIOMAS DO BRASIL

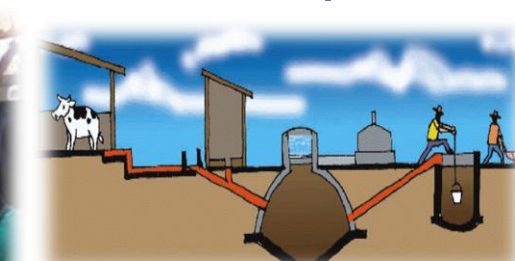
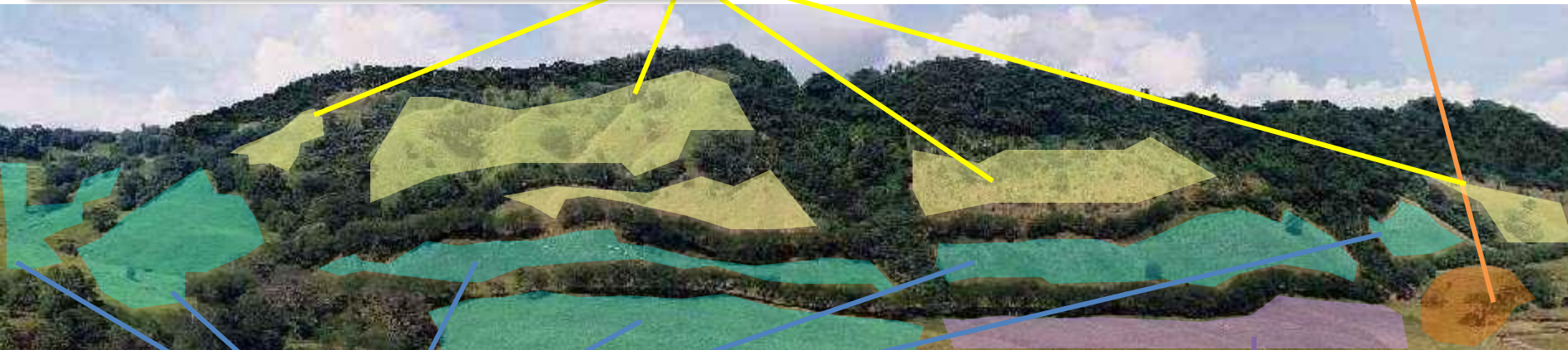


# Introduction





Natural regeneration of native trees (MG)



High density of Leucaena (MA, PA)



# Natural regeneration of native trees for the implementation of silvopastoral system

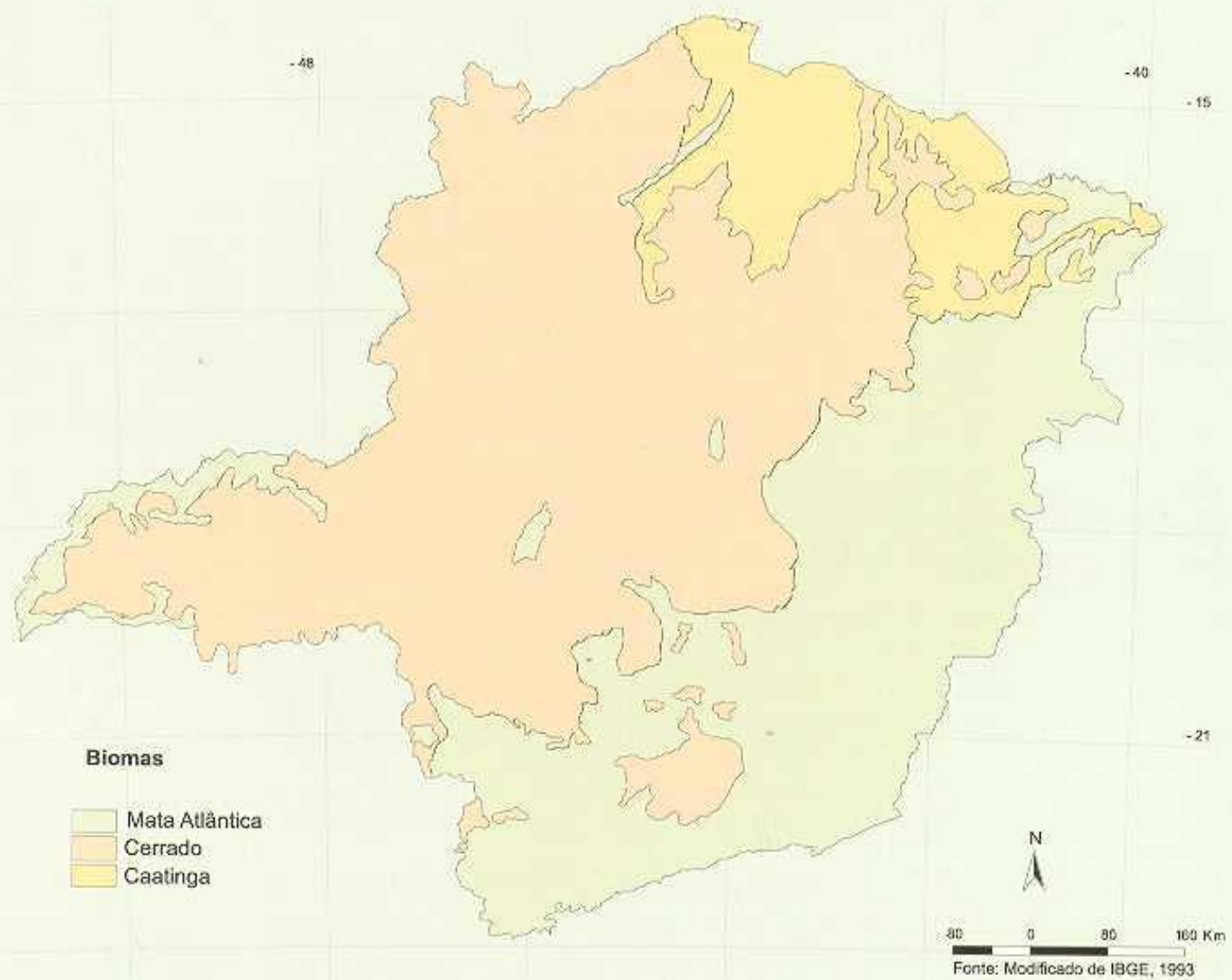
Cerrado bioma (Minas Gerais State)







# BIOMAS DE MINAS GERAIS



# Cerrado (Monoculture of Braquiaria)





# Silvopastoral system - Natural regeneration of native trees



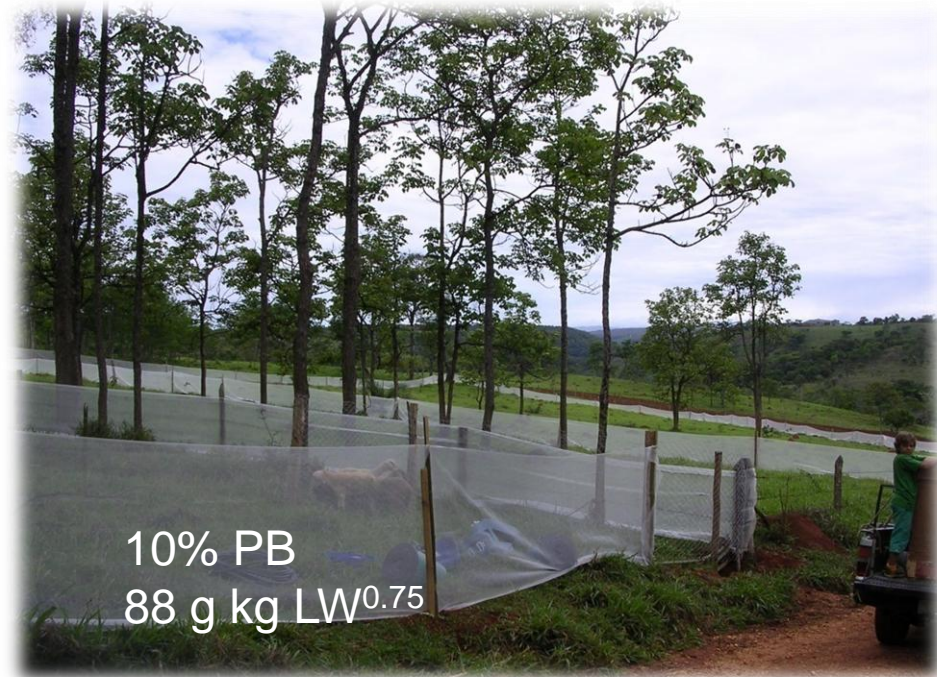


# Results

## Monoculture

## Silvopastoral system

- Lower DM production
- Higher forage PB
- Higher forage intake
- Lower water intake in the system



# Natural regeneration of trees for the implementation of silvopastoral system

Amazonia bioma (Maranhão & Pará State)





Maranhão State (10.000 ha of pasture without shadow)





## Mona Lisa Farm – Natural regeneration since 2002











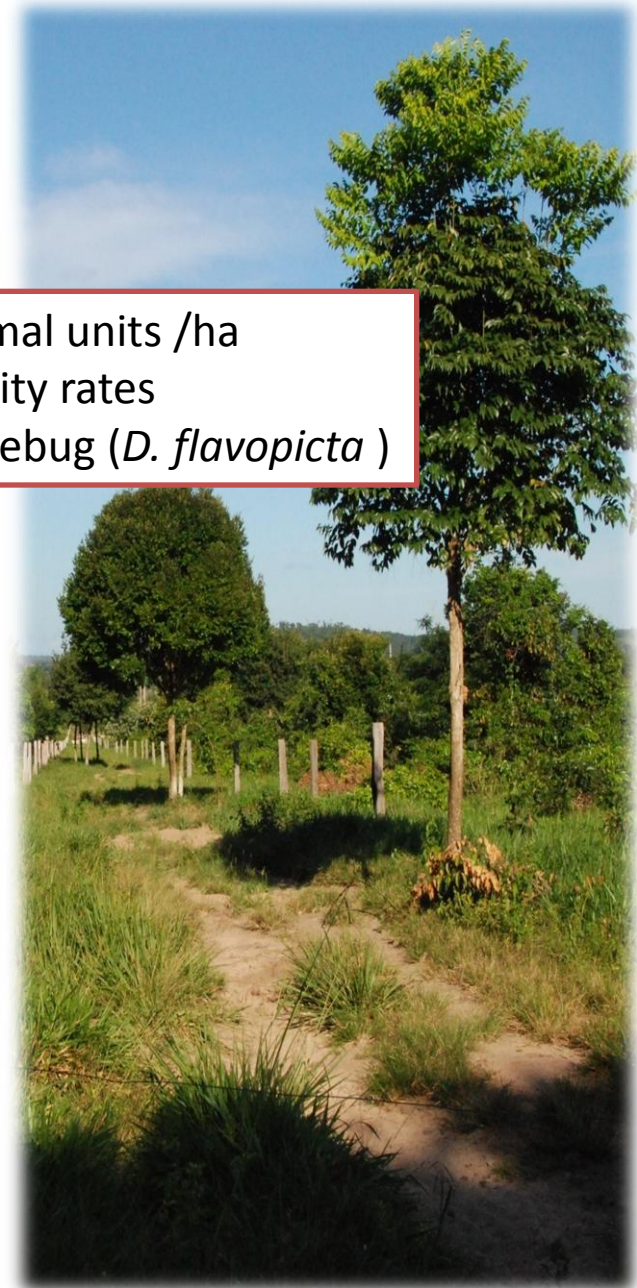
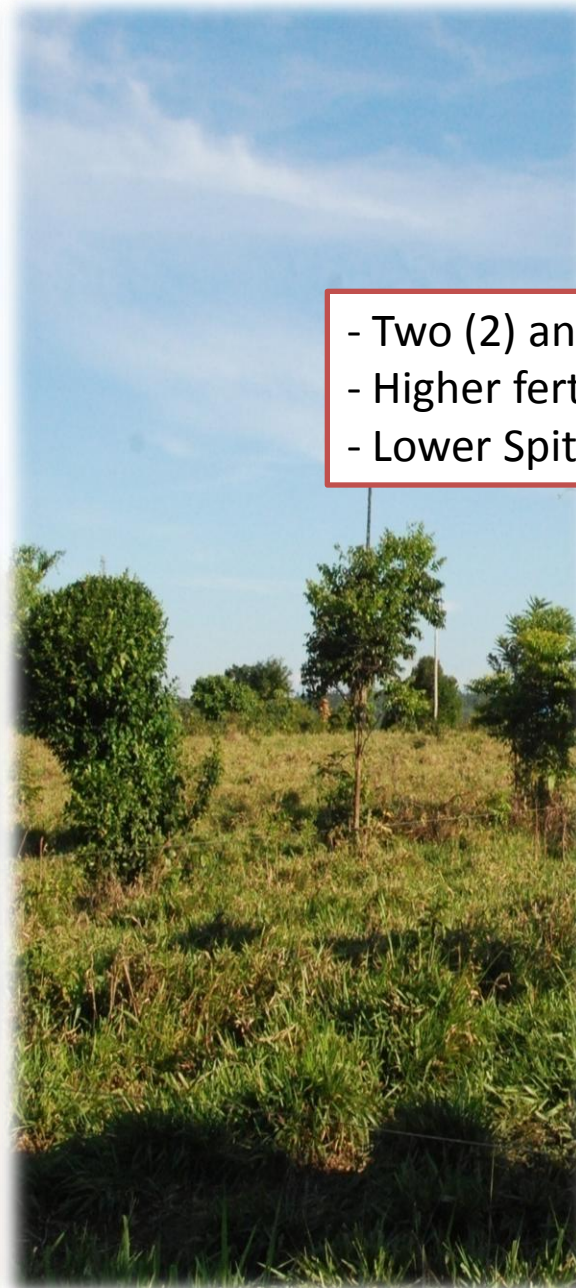
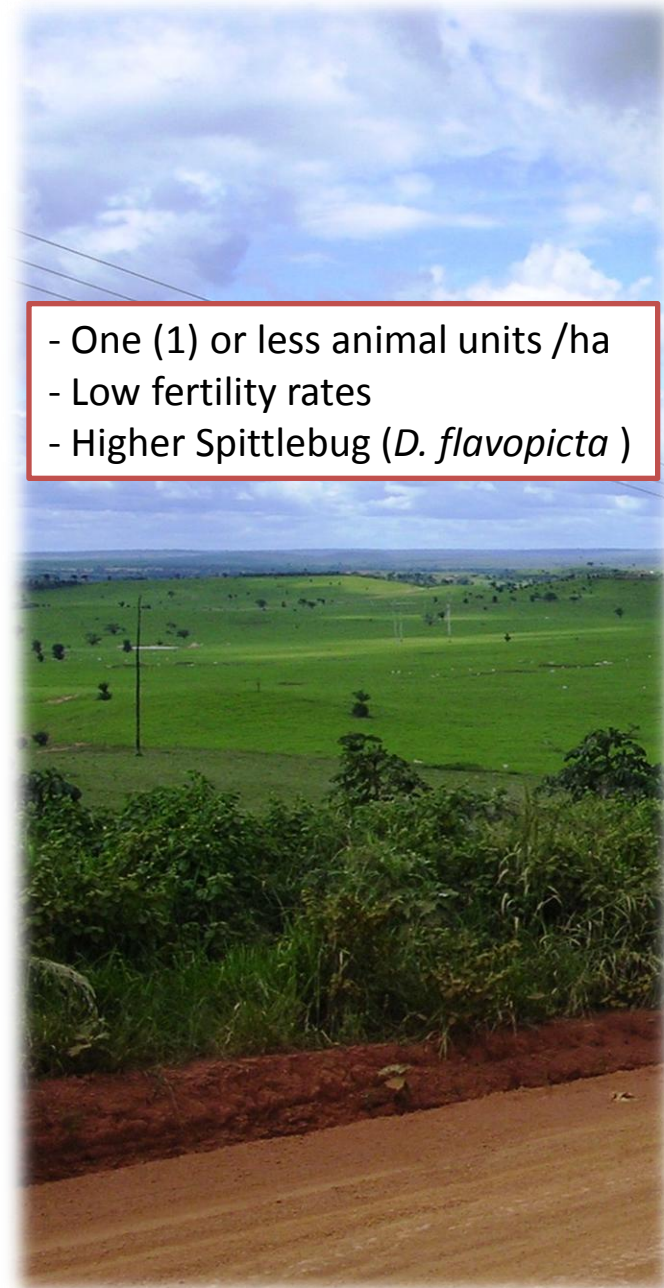


# Monoculture

- One (1) or less animal units /ha
- Low fertility rates
- Higher Spittlebug (*D. flavopicta*)

# Silvopastoral system

- Two (2) animal units /ha
- Higher fertility rates
- Lower Spittlebug (*D. flavopicta*)





# Neighbourhood





# High density of Leucaena for the implementation of silvopastoral system

Amazonia bioma (Maranhão & Pará State)



05/11/2011 09:29

05/11/2011 09:24

















18/02/2012 13:19





05/11/2011 18:27





29/04/2012 12:20





29/04/2012 12:09









19.04.2012



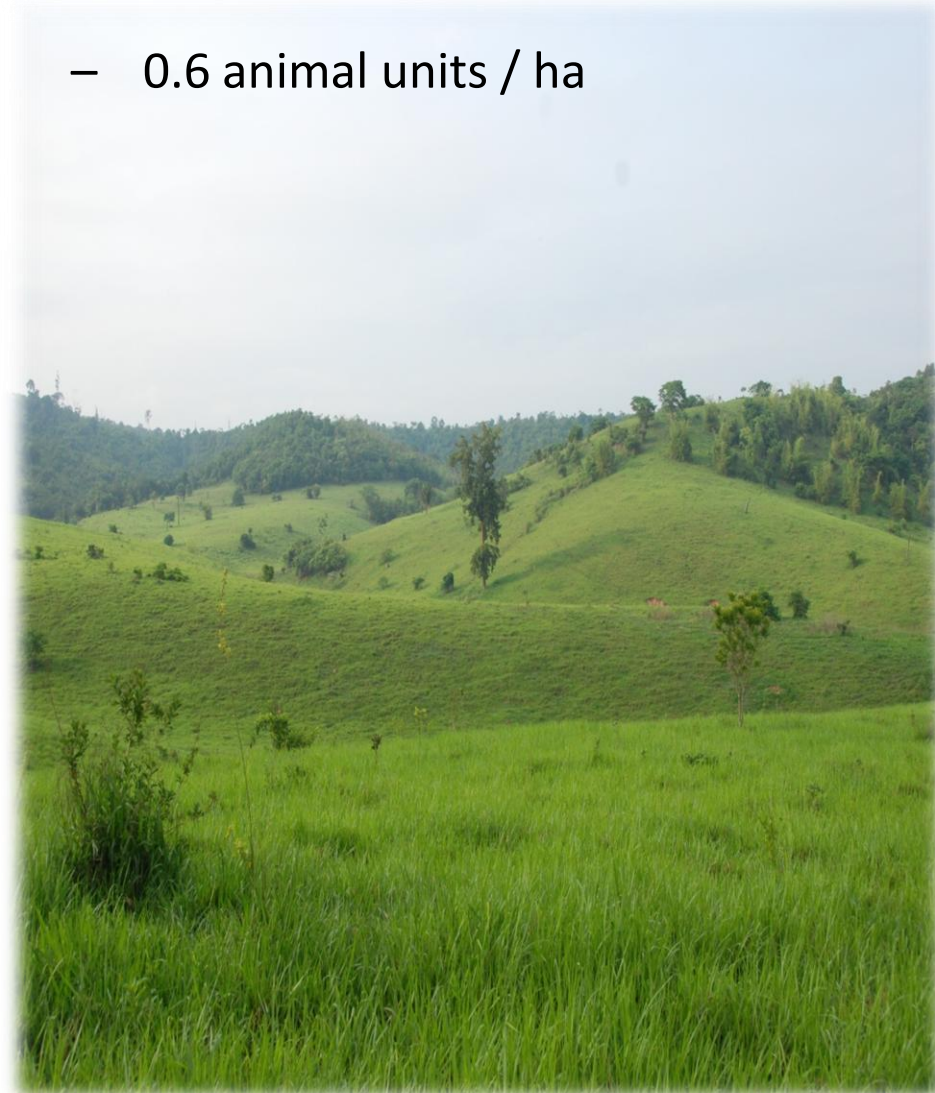




# Results

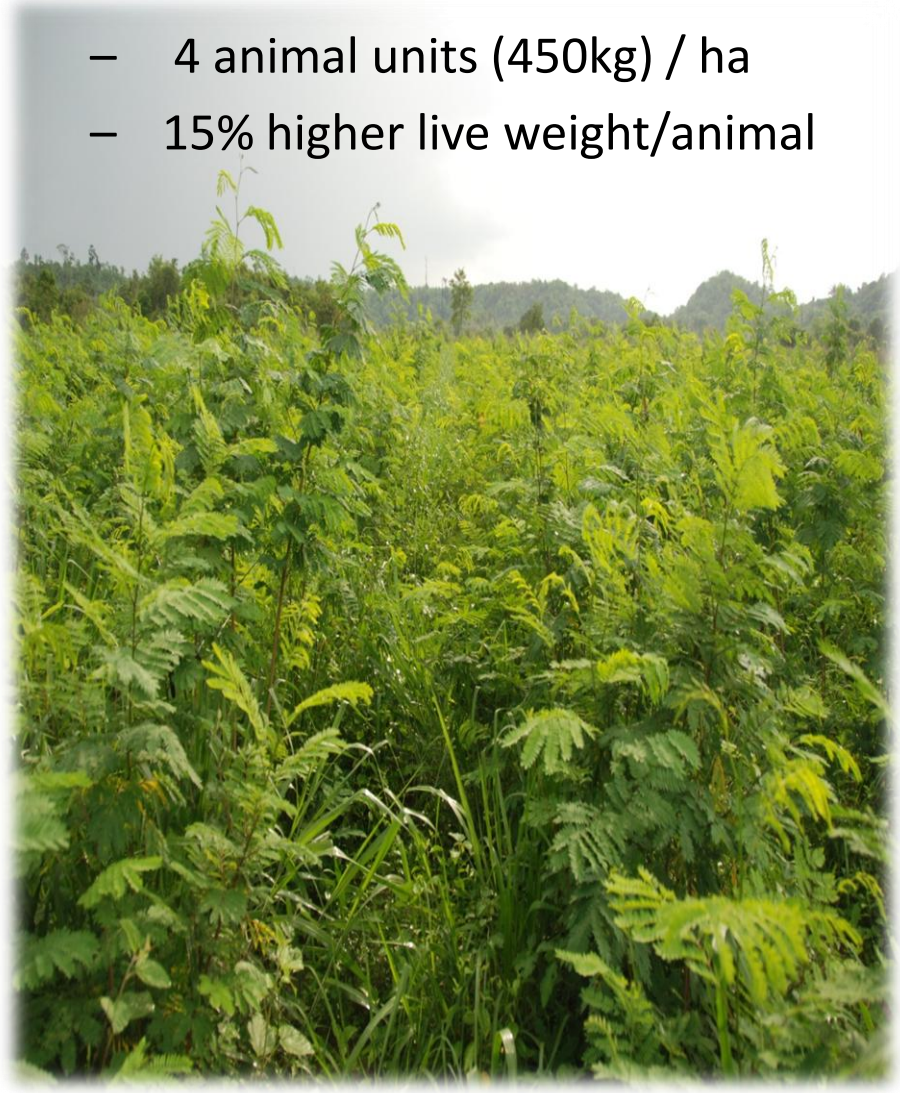
## Monoculture

- 0.6 animal units / ha



## Silvopastoral system

- 4 animal units (450kg) / ha
- 15% higher live weight/animal





# Conclusions

## *for sustainable livestock intensification*

- Natural regeneration of native trees
  - ↑ Higher stocking rate
  - No fertilize
  - Soil seed dependent
  - Lower cost \$
  - Environment services?
- Intensive silvopastoral system
  - ↑ ↑ Higher stocking rate
  - Fertilize during implantation
  - Seed demand
  - Higher cost \$
  - Environment services?

Both are better than monoculture forage system!



# References

- Agroforest Systems 79:189–199, 2010
- Plant Soil 329:185–193, 2010
- Arq. Bras. Med. Vet. Zootec., v.61, n.3, p.706-713, 2009
- Arq. Bras. Med. Vet. Zootec., v.63, n.2, p.382-391, 2011
- Agroforesteria en las Américas, 2008





# VII Latin America Congress on Agroforestry for sustainable animal production

Silvopastoril systems for a green livestock economy

Belém do Pará

8, 9 e 10  
n o v e m b e r

2 0 1 2

Brazil

Amazônia

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Realização:





Thank you!

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