

## MAESOPSIS EMINII

### Economics of production

A study by Buchholz et al (2005) looked at costs and benefits of *Maesopsis eminii* production, the study carried out a financial analysis and internal rate of return under two scenarios; A) with labour and supervision costs, i.e if investor employs people to work for him on his land and B) without labour cost i.e the farmer is using his own land and labour. The study indicates that even if labour costs 1 USD a day and management costs 10 USD a day, maesopsis yield an attractive rate of return (table 1 and 2)

Table 1: Financial analysis of a 1 ha Maesopsis agroforestry system

Activities	Scenario A			Scenario B
	Material costs (USD/ha)	Labour costs (USD/ha)	Management costs (USD/ha)	Material costs (USD/ha)
Seed collection	0.87	2.31	5.79	0.87
Seed preparation	0.58	1.16	5.79	0.58
Potting & raising seedlings	3.47	11.57	6.94	3.47
Site preparation	4.63	6.94	23.15	4.63
Planting	0	4.63	23.15	0
Weeding	0	23.15	34.72	0
First thinning	6.94	40.51	115.74	6.94
Second thinning	20.25	40.51	115.74	20.25
Harvesting	4.05	81.02	115.74	4.05
Total costs	40.8	211.81	446.76	40.80
Revenue from fuelwood	454.28			
Revenue from timber	1262.67			
Returns to labour (USD/day)				9.38

Source: Buchholz et al 2005; 1USD=Ush1728

The study further notes that the negative cash-flow in the first yeas and the late return from the investment are crucial for tree farmers (table 2)

Table 2: Calculations of the internal rate of return

Year	Scenario A	Scenario B
	Annual cash flow in USD	Annual cash flow in USD
1	-100.98	-9.55
2	-57.87	0
3	0	0
4	-96.64	56.61
5	0	0
6	0	0
7	0	0

8	-72.34	83.91
9	0	0
10	0	0
11	0	0
12	1,345.43	1,712.91
Internal rate of return (IRR)	17.23%	(Depends on opportunity cost of own labour provided)

Source: Buchholz et al 2005; 1USD=Ush1728

### Further Reading

Buchholz T, Fehr C, Nakku A, Tennigkeit T, Brandi-Hansen E, Wajja N, Boffa J, Katende A, Mukasa H. 2005. Useful trees for farming: *Maesopsis eminii* for wood production in agroforestry systems in Uganda. Kampala, Uganda: ICRAF Uganda. 31p.