



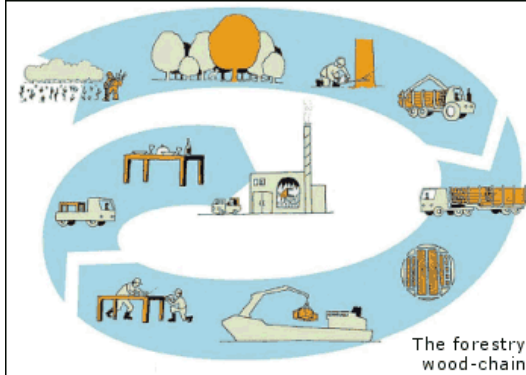
UNIVERSITEIT•STELLENBOSCH•UNIVERSITY  
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# Forest Economics and Management





# Research focus



Forest Operations Accounting



Enterprise Development



NTFP and  
Environmental Services



# Forest Operations Accounting



- Development of a Forest Enterprise Simulator
  - Web-based ForEntSim

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Forest economics and finance

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Institute for Commercial Forestry Research

Forest operations

**Werner Meyer**



Commercial Partner

Forest Economic Services – <http://www.forec.co.za/>

Subject field: Forestry Cost Data



science  
& technology

Department:  
Science and Technology  
REPUBLIC OF SOUTH AFRICA



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# Forest Operations Accounting

(3)



[www.forestsimsim.com](http://www.forestsimsim.com)

ForEntSim

info@forestsimsim.com

Register Log in

F.E.R. Home Forest Enterprise Research ForEntSim Project Toolbox About Contact

### Welcome to Forest Enterprise Research

Forest Enterprise Research (FER) focuses on operational and financial improvements along the forestry value chain.

#### Research

Forest Enterprise Research aims at reducing operational costs and increasing profits by improving operational efficiencies and cost management.

#### ForEntSim

ForEntSim will help you to calculate the Net Present Value, Equivalent Annual Income, Land Expectation Value and Internal Rate of Return of one hectare of plantation based on your income and costs

#### Toolbox

Toolbox gives you access to a collection of useful forest operations and costing tools currently available on the web.

#### The Initiative

Forest Enterprise Research is a joint initiative between the Department of Forest and Wood Science at Stellenbosch University, the Institute for Commercial Forestry Research (ICFR) and Forest Economic Services (FES)

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[Project Info](#)

[Land Preparation](#)

[Establishment](#) ▾

[Tending](#) ▾

[Harvesting](#)

[General Annual Costs](#) ▾

[Cash Flow Analysis](#)

 **Help:**

## Welcome to ForEntSim

ForEntSim will help you to calculate the Net Present Value, Equivalent Annual Income, Land Expectation Value and Internal Rate of Return of one hectare of plantation based on your income and costs.

Please populate the simulator by completing the costs and income items on the left. All costs should be expressed in R/ha unless otherwise stated.



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**i Help:**

### Project Information for Pine

**Land Area (ha)**

**Land Value (R/ha)**

**Nominal Interest Rate (%)**

**Inflation Rate (%)**

**Rotation Age**

**Site Quality**  ▾

[Update](#)



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[Land Preparation](#)

**Establishment ▾**

- Planting
- Regeneration
- Fertiliser
- Blanking

[Cash Flow Analysis](#)

**Help:** Insert all costs related to establishment. Choose between regeneration and planting

### Planting

#### Pine

##### Plants and Stocking

##### Cutting

Stocking / ha

Cost per Plant (R)

##### Seedling

Stocking / ha

Cost per Plant (R)

##### Planting Costs (R/ha)

Manual Planting

Mechanical Planting

Watering

Hydrogel Material

Hydrogel Application

Pesticide Material

Pesticide Application

Post Plant Water

Other

#### Wattle

##### Plants and Stocking

##### Cutting

Stocking / ha

Cost per Plant (R)

##### Seedling

Stocking / ha

Cost per Plant (R)

##### Planting Costs (R/ha)

Manual Planting

Mechanical Planting

Watering

Hydrogel Material

Hydrogel Application

Pesticide Material

Pesticide Application

Post Plant Water

Other



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**Help:**

**Pine: Harvesting at Rotation Age 25**

**Income**

Product Name  ✕

Product Value (R/m<sup>3</sup> or tonne)  Product Quantity (m<sup>3</sup> or tonne/ ha)

Product Name  ✕

Product Value (R/m<sup>3</sup> or tonne)  Product Quantity (m<sup>3</sup> or tonne/ ha)

Product Name  ✕

Product Value (R/m<sup>3</sup> or tonne)  Product Quantity (m<sup>3</sup> or tonne/ ha)

**Costs (R/ m<sup>3</sup> or tonne)**

**Harvesting Cost** ✕

Labour  Supervision

Management  Transport

Machine Cost (Large)  Machine Cost (Small)

Fuel

**Extraction Costs** ✕

Labour  Supervision

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**Help:**

**Pine**

[Back](#)

<b>NPV</b>	R10,566.37	<b>EAI</b>	R534.06
<b>LEV</b>	R28,302.12	<b>IRR</b>	2.86%

Show  entries

Search:

Name	Year	Value	Present Value
Land Preparation	0.00	-2000.00	-2000.00
Land Value	0.00	-10000.00	-10000.00
Planting	0.00	-2854.40	-2854.40
Regen, Coppice Sowing	0.00	0.00	0.00
Weed Control 1	1.00	-488.00	-478.96
Weed Control 2	2.00	-488.00	-470.09
Weed control 3	2.00	-488.00	-470.09
Weed control 4	3.00	-488.00	-461.38
Pruning 1	5.00	-593.00	-540.08
Pruning 2	6.00	-660.00	-589.97

Showing 1 to 10 of 17 entries

Previous  2 Next



# Forest Operations Accounting

(4)



- Financial value chain analysis
  - Case study research on financial and cost management of timber farmers
    - Systems used, record keeping, benchmarking, cost drivers, etc.



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# Forest Operations Accounting

(5)



- Financial value chain analysis
  - MScFor - Investigating and quantifying the value of forest research results
    - Dannyboy Seboa



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# Forest Operations Accounting

(6)



- Financial value chain analysis
  - MScFor - Forestry Value Chain Improvement
    - Daniel Graham





# Enterprise Development



- Enterprise improvement
  - MScFor - Evaluating the sustainability, development impact and natural capital impact of invasive alien plant based value-adding enterprises
    - Nicci Mander





# Enterprise Development (2)



- Enterprise improvement
  - MScFor – Role of government support in stimulating Value Added Industries



- Ngceba Ngcobo



# Enterprise Development (3)



- Enterprise improvement
  - MScFor – Methods of assessment of bucking options in alien invasive forests
    - Brendan Marais





# Enterprise Development (4)



- Bio-energy enterprises
  - MScFor – Evaluation of the potential of non-woody invasive plants for bioenergy
    - Mandlakazi Melane







# Enterprise Development (5)



- Bio-energy enterprises
  - Development of a value chain evaluation tool for NRM biomass to bio-energy operations
    - Myles Mander and James Blignaut (FutureWorks)





# Enterprise Development <sup>(6)</sup>



- Bio-energy enterprises
  - MScFor – Analysis of various Bioenergy Value Chain options at Shiselweni Forestry Company (SFC) in Swaziland

- Robert Tumber





# NTFP & environmental services



- MScFor - Structure, conduct and performance of honey markets in Zambia's dryland forests

- Bechani Nyawali



- MScFor - The Relationship between Agroforestry and Ecosystem Services: Role of Agroforestry in Rural Communities

- Takalani Tahulela





# NTFP & environmental services

(2)



- MFor - Agroforestry development and implementation in South Africa: An assessment of selected case studies

- Itchell Guiney

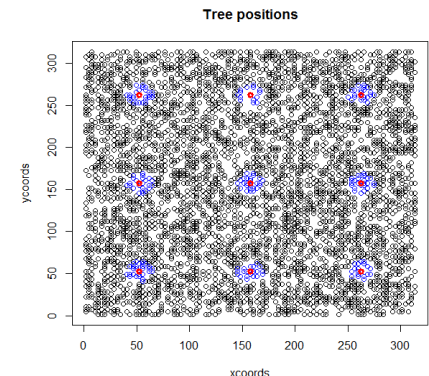




# Other projects



- Governance models for transfrontier conservation areas
  - Chrispin Kambani (PhD study)
- Valuation research and courses
  - IAS 41 methodology - Carl Baptista (MScFor completed )
  - Forest Valuation and finance: What every forester should know
  - Commercial valuations – Siyakhula Property Valuers
- Effect of timber enumeration errors on timber value and decision making
  - Gerard Lindner (MicroForest) & David Drew





- Please give me feedback on ForEntSim

[www.forestsimsim.com](http://www.forestsimsim.com)