

AN ASSESSMENT OF SPECIFIED TECHNOLOGICAL
PRACTICES AVAILABLE IN THE POMEGRANATE INDUSTRY,
AIMING TO IDENTIFY THE MOST COST-EFFECTIVE AND
EFFICIENT PRACTICE

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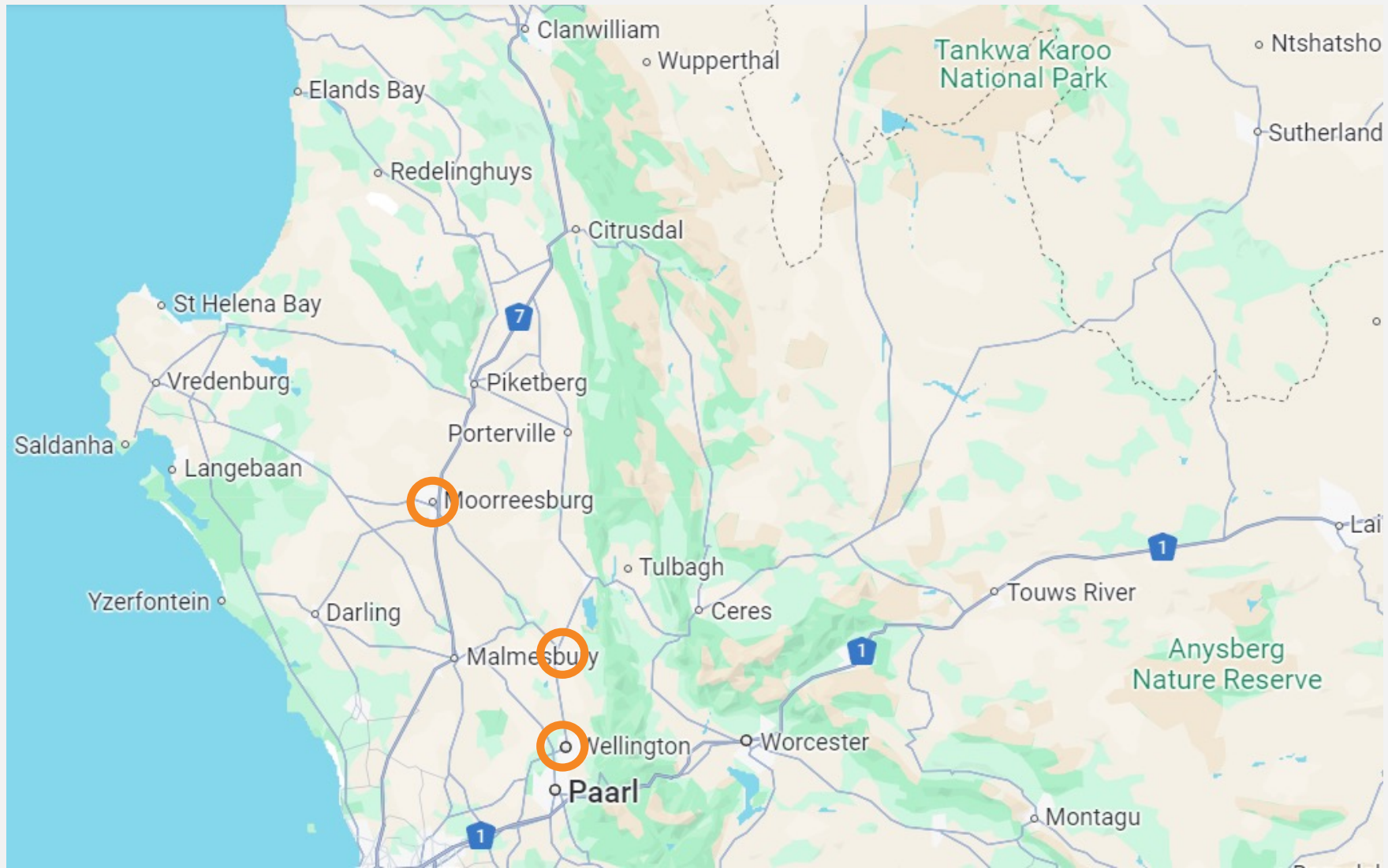
INTRODUCTION

Doel van die model:

- Net Present value (NPV) (verskil tussen huidige kontant invloei en kontant uitvloei)
- Internal Rate of Return (IRR) (die verwagte koers waarteen 'n belegging jaarliks groei)

Verdiskonteringskoers:

Repo koers – inflasie koers + 1% (vir risiko)



IMPLEMENTING SHADE NETTING

Implementing shade netting (Cost per ha)		
Adding shade netting (cost)	R	280 000,00
Nett		R140 000,00
Structure		R140 000,00
Annual shade netting maintenance (R/ha)	R	2 500,00

Fruit packout % assumptions:		
Shade netting can result in estimated	35,4%	increase in yield
	39,1%	increase in marketable fruit
Fruit bagging can result in estimated	N/A	increase in yield
	31,5%	increase in marketable fruit

IMPLEMENTING FRUIT BAGGING

Implementing fruit bagging	
Average no. fruit bagged per labourer per hour (first year / not reusing bags)	5,5
Average no. trees' bags removed per labourer per hour	10
Bags per full bearing tree	35
Average no. additional bags to buy in following years	5
Cost per new bag and wire	R0,32

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Activities					
HARVESTING					
	Block	ha	yield per block (ton)	Wage method	Picking cost per block (R)
Variety 1					
Variety 2					

Activities Assumptions	
Current annual activities	
Average weight per bin delivered (kg)	
Average weight per picking bag (kg)	
Average hours pick through / ha	
wage / hour	
harvesting cost per ha (full bearing)	
Average hours prune ha	
Cost to prune a ha	
Average hours fruit & flower thinning ha	
Flower and fruit thinning cost per ha	

Capital Budget

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Gross Margin																					
Total Gross Margin (a)																					
Fixed costs																					
Total Fixed Cost (b)																					
Capital Items																					
Total Land																					
Fixed improvements																					
Total fixed improvements																					
Electric pumps																					
Machinery and equipment																					
Tractors																					
Other equipment																					
Net Yearly flow																					

IRR	
NPV	
Discount rate	3,8%

FARM A COMPARISON

FARM A			
	Current practices	Adding shade netting	Adding fruit bagging
NPV	R47 625 010.68	R77 461 329.10	R55 495 063.69
IRR	41.94%	38.49%	45.14%

FARM C COMPARISON

FARM C			
	Current practices	Adding shade netting	Adding fruit bagging
NPV	R24 497 314.65	R71 794 544.11	R41 945 413.96
IRR	14.48%	23.08%	18.78%

ESTABLISHING, THAT THE USE
SPECIFIED TECHNOLOGICAL
PRACTICES IN POMEGRANATE
PRODUCTION IS **ADVANTAGEOUS.**