

Workshop 1 – Optimisation, value-adding & Modern Production

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Ridging



Ridging



Ridging



Maluma²⁰¹⁶DAY
Principles and practices for modern farming



Ridging



Maluma²⁰¹⁶DAY
Principles and practices for modern farming



Ridging



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Principles an

Ridging

Accuracy is crucial



Ridging

Aantal rye	23	98 m			
Tyd per ry	5 ure		Aantal Ha	1,4	
Totale Tyd	115 ure				
Tyd per TLB/dag	8 ure				

Aantal TLB's	1	2	3	4	5
Aantal dae benodig	14,375	7,1875	4,791666667	3,59375	2,875
Cost	R28 750,00	R28 750,00	R28 750,00	R28 750,00	R28 750,00
Koste/ha	R20 535,71	R20 535,71	R20 535,71	R20 535,71	R20 535,71



Netafim – Drip trials

So...Micro Sprinklers are more effective than drip?



Netafim – Drip trials



Planting



Planting

Rate of planting – Approx 100 trees/team/day





Allesbeste
Boerderij & Bloembereik

Orchard task sheet

Blok

D5

KultivarMaluma

Oppervlak

12,9Ha

Aantal Bome10709

Aktiviteit	Verwysings nommer	Beskrywing	Rondte	Datum Uitgereik	Datum Begin	Datum Voltooi	Ure	Arbeiders	Ure Per Ha	Min Per Boom	Manuur per Blok	Manuur per Ha	Loon Per uur	Berekende Arbeidskoste per blok	Berekende Arbeidskoste per Ha
Besproeiing (H/O)		Mcros skuif		20/08/2012	18/09/2012	11/10/2012		150,50	10,10	11,66666667	1520,05	117,8333333	12,41	18863,8205	1462,31166
Bossiekapper		Onkruid		30/01/2013	31/01/2013	14/02/2013		90,00	2,80	6,976744186	252	19,53488372	12,41	3127,32	242,42790
Snoei (Hand)		Hand snoei		18/01/2013	19/01/2013	08/02/2013		143,00	1,80	11,08527132	79,44444444	6,158484065	12,41	985,9055556	76,4267872
Kompos / Chips		Mulsh		10/09/2013	12/09/2013	12/09/2013		9,00	4,00	0,697674419	2,25	0,174418605	12,41	27,9225	2,16453488
Kompos / Chips		Mulsh		10/09/2013	10/10/2013	12/12/2013		243,00	1,20	18,8372093	202,5	15,69767442	12,41	2513,025	194,808139
		Bome plant		20/02/2013	22/02/2013	26/02/2013		20,00	2,30	1,550387597	8,695652174	0,674081564	12,41	107,9130435	8,36535220
Snoei (Hand)		Hand snoei		08/07/2013	09/07/2013	18/09/2013		54,00	2,00	4,186046512	27	2,093023256	12,41	335,07	25,974418
Bokbompies		Boompies toe		15/10/2013	16/10/2013	16/10/2013		5,00	2,00	0,387596899	2,5	0,19379845	12,41	31,025	2,4050387
Bossiekapper		Onkruid		18/10/2013	19/10/2013	24/10/2013		54,00	1,00	4,186046512	54	4,186046512	12,41	670,14	51,9488372
Kunsmus		Hand kunsm		11/12/2013	11/12/2013	12/12/2014		13,50	7,00	1,046511628	1,928571429	0,149501661	12,41	23,93357143	1,85531561
Screen spuit		screen		12/12/2013	13/12/2013	16/12/2013		59,00	1,60	4,573643411	36,875	2,858527132	12,41	457,61875	35,4743217
Bossiekapper		Onkruid		10/01/2014	27/01/2014	29/01/2014		27,00	2,00	2,093023256	13,5	1,046511628	12,41	167,535	12,987209
Slash		Trekker slash		06/02/2014	13/02/2014	14/02/2014		13,50	1,00	1,046511628	13,5	1,046511628	12,41	167,535	12,987209
Snoei (Meganies -Hand)		Snoei mag		31/01/2014	13/02/2014	14/03/2014		87,00	2,00	6,744186047	43,5	3,372093023	12,41	539,835	41,8476744
Snoei (Meganies -Hand)		Snoei mag		31/01/2014	17/03/2014	07/04/2014		80,00	2,00	6,201550388	40	3,100775194	12,41	496,4	38,4806201
Bokke Fens		Bokke net		22/09/2014	22/09/2014	24/09/2014		27,00	1,00	2,093023256	27	2,093023256	12,41	335,07	25,974418
Kompos chips		Mulsh		15/09/2014	15/09/2014	29/09/2014		99,00	2,00	7,674418605	49,5	3,837209302	12,41	614,295	47,6197674
Kompos chips		Mulsh		30/09/2014	30/09/2014	06/10/2014		28,00	2,00	2,170542636	14	1,085271318	12,41	173,74	13,4682170
Trekker slash		Onkruid		31/10/2014	31/10/2014	07/11/2014		33,00	1,00	2,558139535	33	2,558139535	12,41	409,53	31,7465116
Bossiekapper		Onkruid		06/11/2014	06/11/2014	18/11/2014		80,00	1,00	6,201550388	80	6,201550388	12,41	992,8	76,9612403
Bome verf		Bome verf		18/12/2014	18/12/2014	14/01/2015		90,00	2,00	6,976744186	45	3,488372093	12,41	558,45	43,2906976
Bome verf		Bome verf		18/12/2014	15/01/2015	26/01/2015		48,00	1,00	3,720930233	48	3,720930233	12,41	595,68	46,1767441
Hand snoei		Compressor snoei		18/12/2014	07/01/2015	22/01/2015		166,00	2,00	12,86821705	83	6,434108527	12,41	1030,03	79,8472868
Bossiekapper		Onkruid		04/02/2015	04/02/2015	17/02/2015		90,00	1,00	6,976744186	90	6,976744186	12,41	1116,9	86,5813953
Boronat		Kunsmus		27/03/2015	27/03/2015	10/04/2015		23,00	3,00	1,782945736	7,666666667	0,594315245	12,41	95,14333333	7,37545219
Kompos /chips		Mulsh		24/08/2015	24/08/2015	28/08/2015		45,00	2,00	3,488372093	22,5	1,744186047	12,41	279,225	21,6453488
Kompos / chips		Mulsh		18/08/2015	20/08/2015	03/09/2015		99,00	2,00	7,674418605	49,5	3,837209302	12,41	614,295	47,6197674
Kompos /chips		Mulsh		17/11/2015	19/11/2015	20/11/2015		18,00	3,00	1,395348837	6	0,465116279	12,41	74,46	5,77209302
Snoei		Compressor snoei		10/08/2015	10/11/2015	14/12/2015		213,00	2,00	16,51162791	106,5	8,255813953	12,41	1321,665	102,454651
Pva verf		Verf		10/11/2015	12/11/2015	14/12/2015		103,00	1,00	7,984496124	103	7,984496124	12,41	1278,23	99,087596
Bossiekapper		Onkruid		09/02/2016	11/02/2016	22/02/2016		63,00	1,00	4,88372093	63	4,88372093	12,41	781,83	60,6069767



Pruning analysis

High-density pruning 800/ha – 4-8h/ha 0,5-1min /tree

Hand pruning – 7,3h/ha & 1,06min/tree

Mechanical Pruning – 12h/ha & 1,7min/tree



Process management

Brush cutter – 4-7h/ha (7x3,5)

Tractor slash – 1,4h /ha (7x3,5)

PVA Painting (sunburn) – 4-18h/ha (depending on cycle)

Herbicide – 16h/ha & 2,26min/boom (5x5)

Chemical application

3															
4	GEWAS: AVOKADOS					KULTIVAR: FUERTE					BLOK: B1		OPPERVLAK:		
5															
6	TOEDIENINGSBESONDERHEDE										TOEDIENINGSBEREKENING				
7	DATUM	PRODUK	AKTIEWE BESTANDEEL	METODE	RONDTE	FINANSIELE JAAR	VERW NR	LITERS	DOSIS L/100	AANTAL ARBEID	URE	L/ BLOK PRODUK	L/ HA PRODUK	L/ BOOM PRODUK	L/HA
24	28/11/15	Dimeldex	Koperoksichloried	Newelblaser	2	2016		7000	0,4	1	5,5	28	5,6	0,06	
25	02/12/15	Dimeldex	Koperoksichloried	Hand	2	2016		86000	0,3	7	50,5	258	51,4	0,52	1
27	06/01/16	Dimeldex	Koperoksichloried	Newelblaser	3	2016		8000	0,4	1	5	32	6,4	0,06	
28	19/01/16	Dimeldex	Koperoksichloried	Hand	3	2016		87000	0,3	7	56	201	40	0,4	
29															
30															

@R50/kg

Mistblower estimate - 5,8kg/ha = R290/ha

Handgun estimate – 51,4kg/ha = R2570/ha

In conclusion...

I think the first step we need to take towards
“*modern farming*” is to *measure* and to
understand.

