



Taking apple production from rags to riches, avoid leaving money on the table, and reducing a dime a dozen

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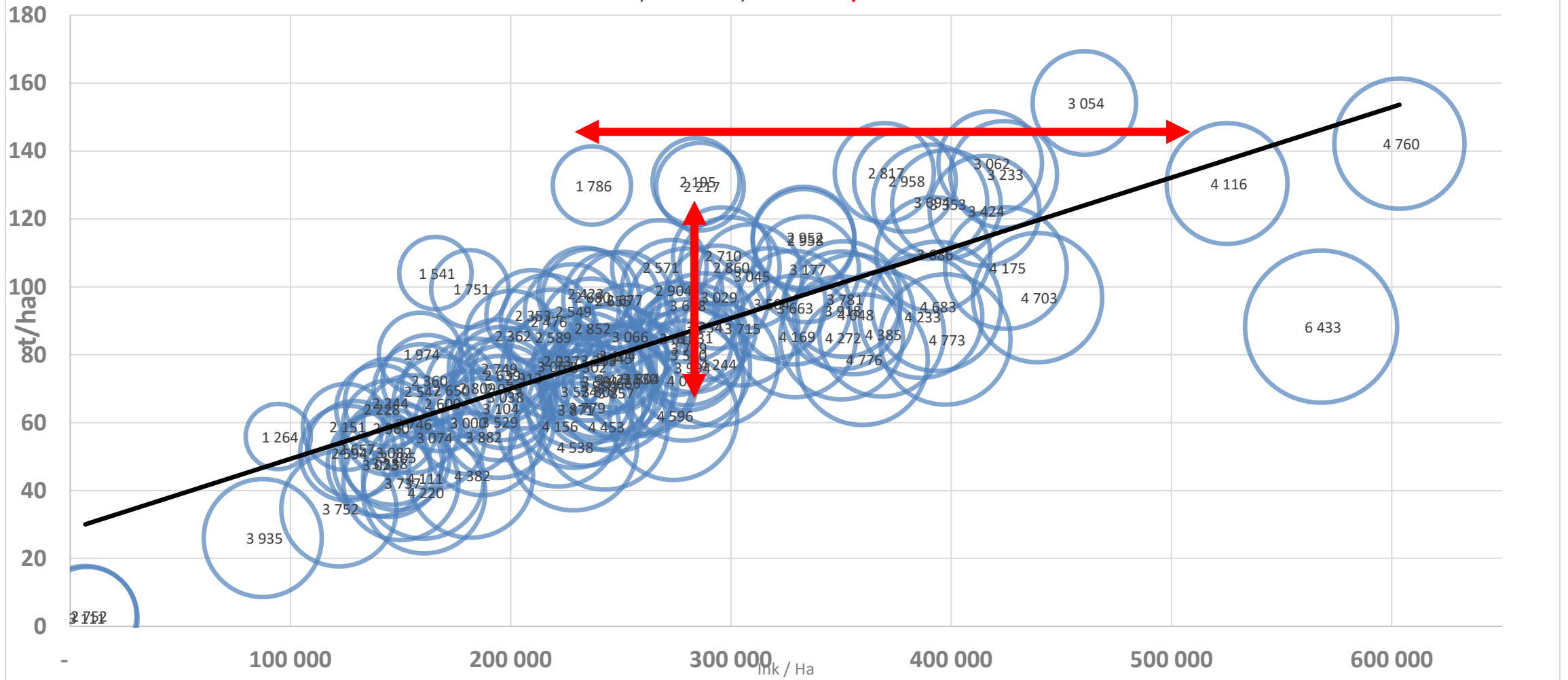
The risk of falling behind

1	Increase picking tempo	Increased picker defects Bruising, fruit drop, shoulder injuries, stem pulls
2	Pick more mature fruit	Pitting, browning, cracking, water core
3	Lose optimum pick of the next variety	Reduced storage time

Put effort into getting accurate yield estimation, This is first part of you game plan.

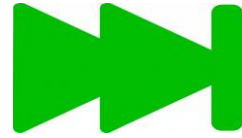
Ink/ha vs t/ha vs **R/ OR ton**

$R^2 = 0,6138$





Helicopter view



		Blue	Green	Yellow	Orange	Red
Production	100%	100 % +20%	+100%			
Fixed	45%			+ 50%	-50%	0%
Variable	55%			100%	100%	-100%
Ha		x	x	x	x	14
Tons		x	x	x	x	356
% of Ha		60%	14%	15%	9%	1%
% of tons		70%	13%	12%	5%	0%
% of Profit		111%	4%	-4%	-8%	-2%

FAST FORWARD = Production of quality



Canopy structure

Number of branches

Branches on top of each other

Growth

Shading

Light within the tree is even more important with nette and RFM.

We don't need all those branches.



Reflective mulch used 2 times in one season

Kanzi

R/ton reflective mulch	R	6 315
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R/ton Control	R	5 274
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Yield	t/ha	75
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Increased income R/ha	R	70 284
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Rosy Glow

R/ton reflective mulch	R	8 017
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R/ton Control	R	7 381
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Yield	t/ha	75
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Increased income	R	47 752
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Total value added in 1 season	R	118 036
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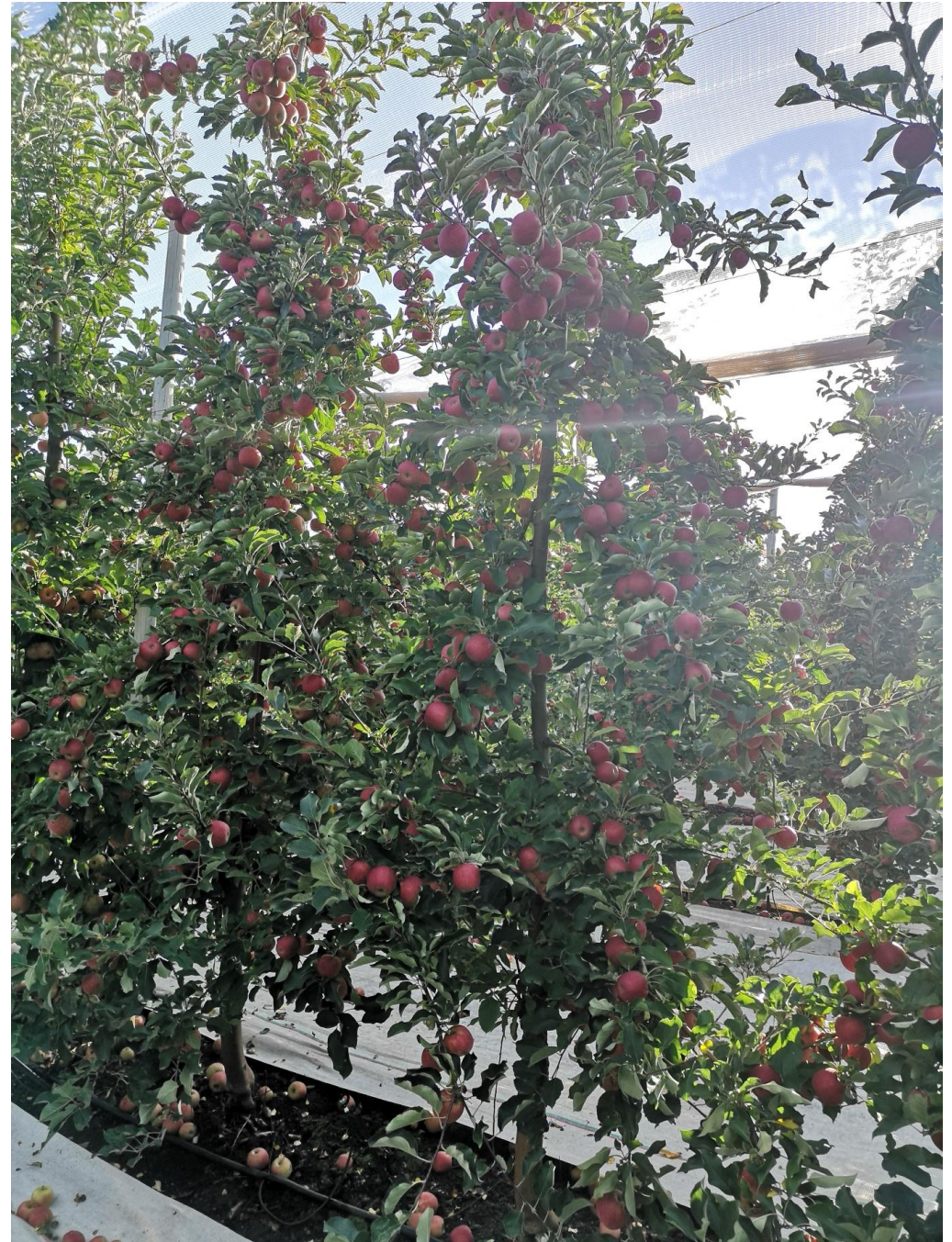
HA	Plan	Cost	Total
14	Remove	R 220 000	R 3 080 000
15	Draped netting	130000	R 1 950 000
15	Reflective mulch	76000	R 1 140 000
			R -10 000

R/ton	R	8 000.00	R 3 200.00	R	2 000.00
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Packout	Class 1 %	Class 2 %	Class 3 %	R/ton	t/ha		
Normal	35%	35%	30%	R 4 520	95	R	429 400
Net + Mulch	50%	30%	20%	R 5 360	95	R	509 200
						R	79 800
					15 ha	R	1 197 000
	Class 1 %	Class 2 %	Class 3 %	R/ton	t/ha		
Normal	35%	35%	30%	R 4 520	95	R	429 400
Mulch	43%	30%	27%	R 4 940	95	R	469 300
						R	39 900
					30 ha	R	1 197 000

Total R 2 394 000

Having uniform quality



Cripps Red



Defoliation???

Draped netting



Some solutions are more obvious

Maturity

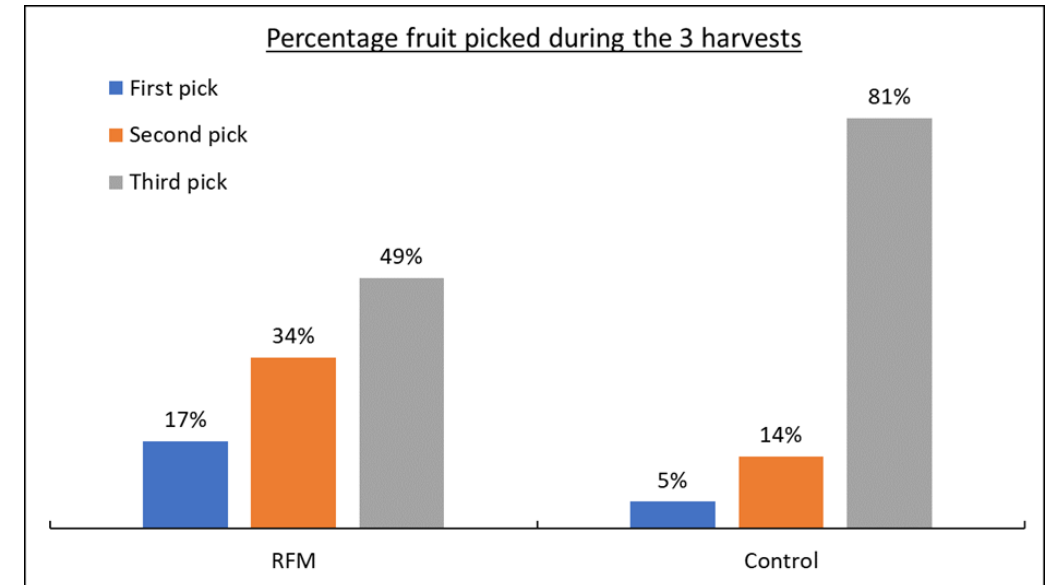
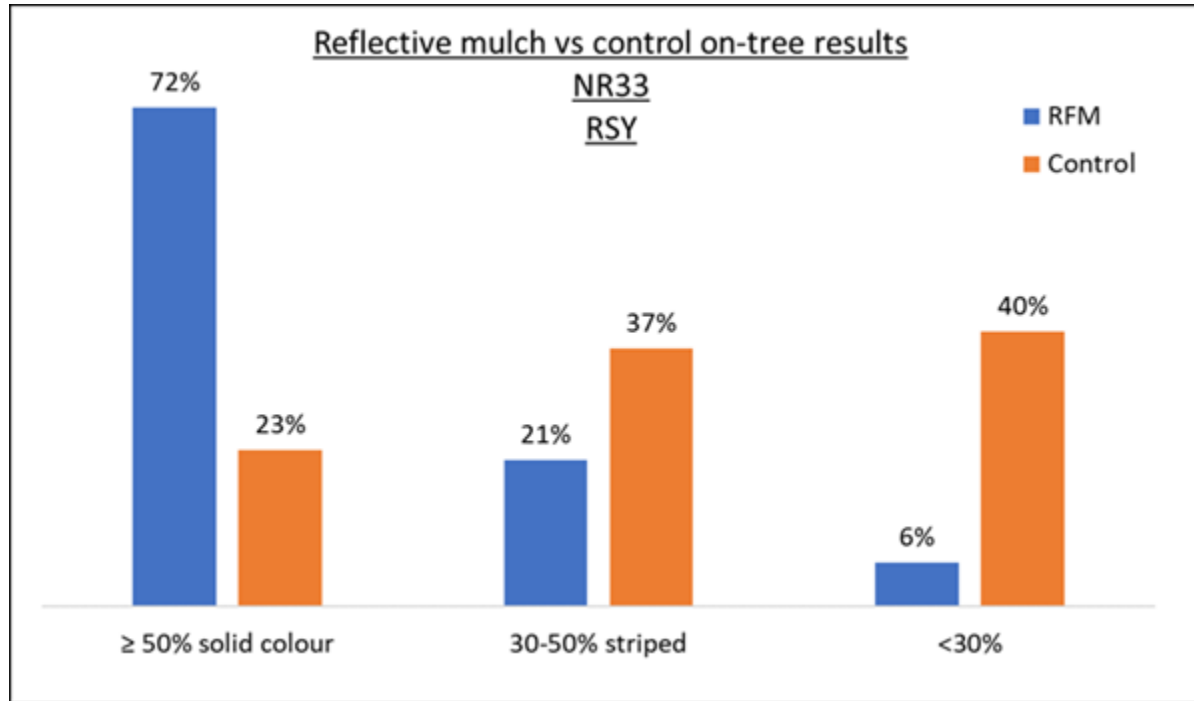
Harvest 1



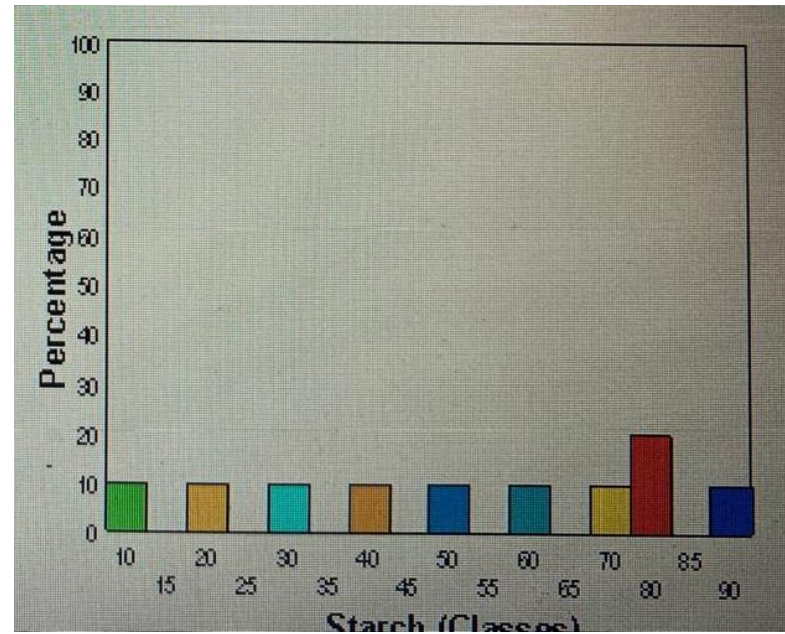
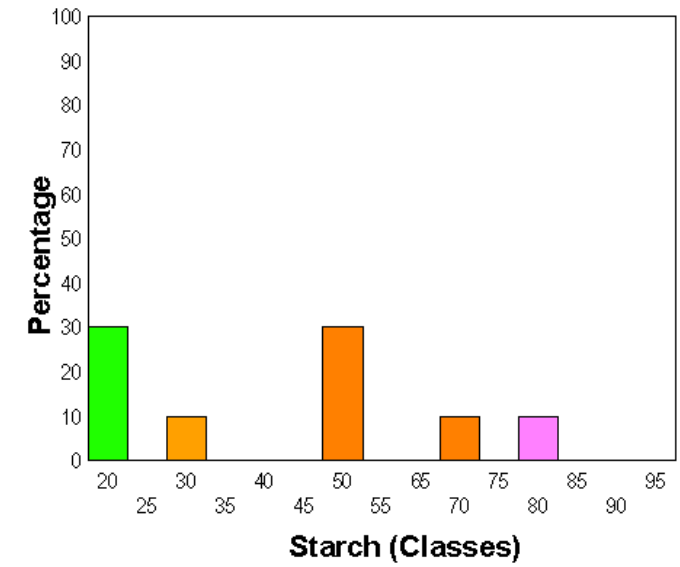
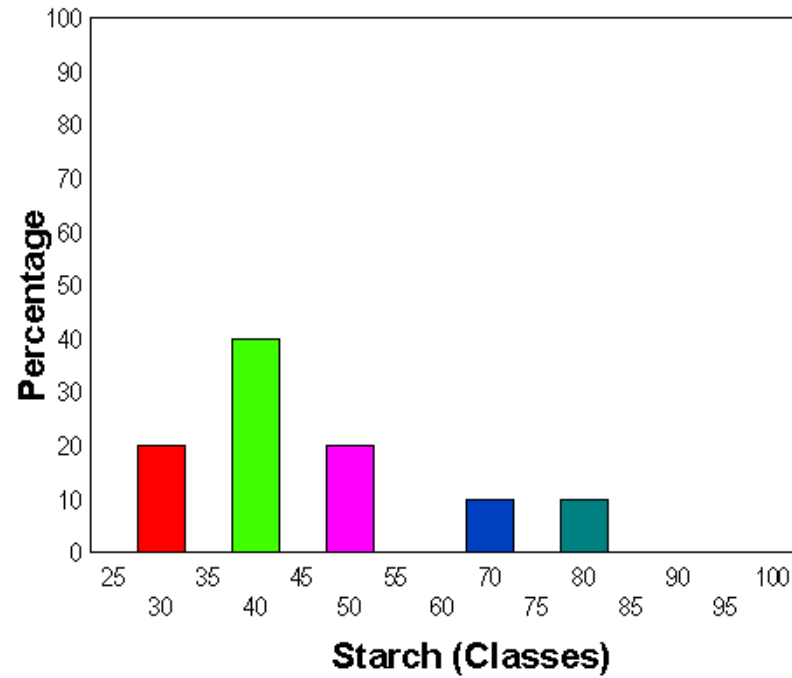
Harvest 2



Reflective mulch on Rosy Glow



Mixed maturity



Uniform maturity = uniform quality



Don't lose it all again!!



Don't lose it all again!!

We work hard to improve something with 10 tot 20% ! Lots within moments

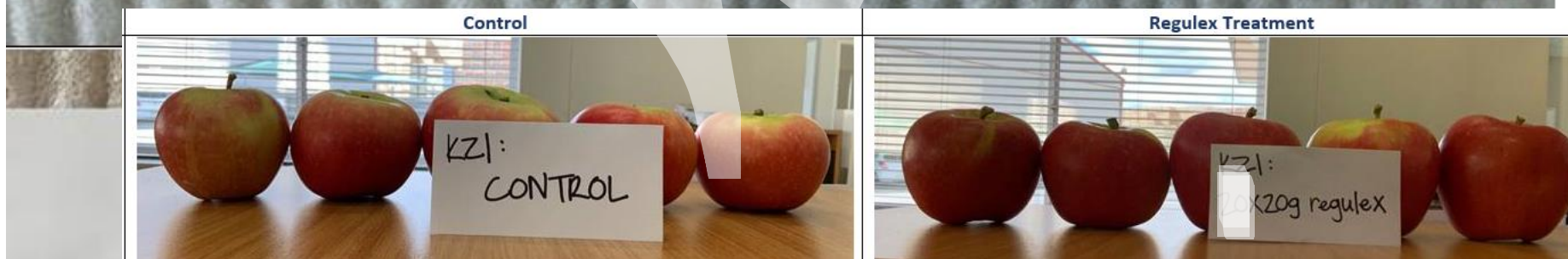
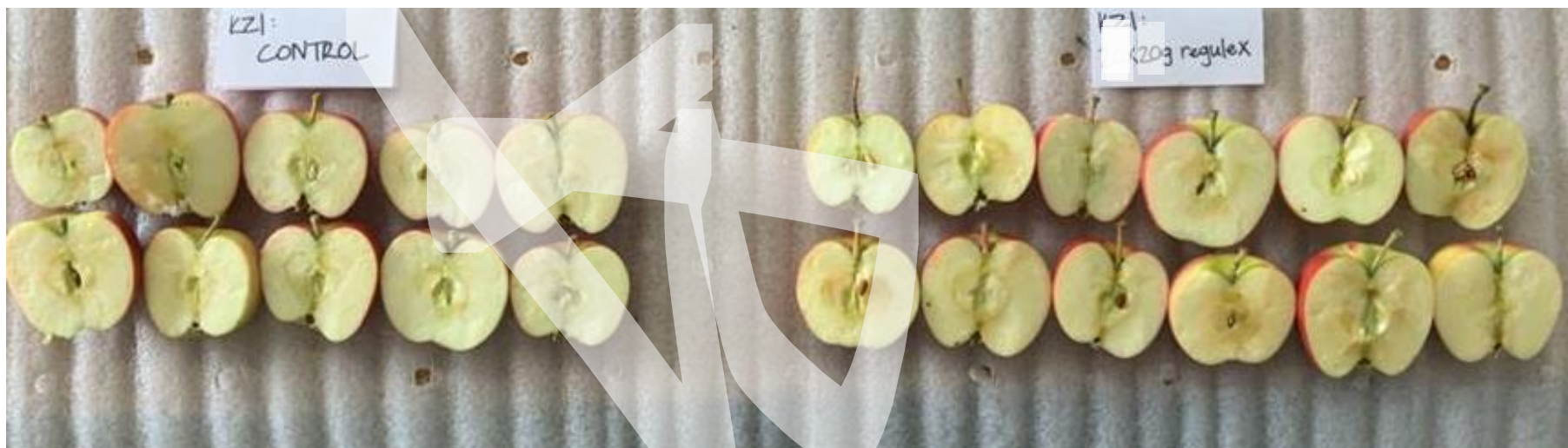


Getting the stems longer and clipping at harvest.



Uniform quality





Tree structure, Yield, multiple picks and Fruitdrop



Orchard	Groen	Oranje
PKW03A	19%	
PKW05B	9%	
PKW06B	9%	
PKO06	10%	
PR05A	12%	
KJ06	9%	
KB02		22%
KB03		21%
KB01		29%
LKAT08		18%
LB17	11%	
VB13	8%	
VE03	15%	
VE08	16%	
VE05	19%	
VC04		19%
VC07		20%
VF06	20%	
VB08	21%	
VC05		24%
VB06	27%	
VE07		37%
VE09		42%
	15%	26%

Draped net

- Class 1: 97%
- Class 2: 1.5%
- Class 3: 1.5%

After packing the fruit

Class 1 reduced to 86 %

We still have a small portion to gain.

In the last 2 seasons we had a big drive to pick
Goldens without ladies at the bin.



Orchards with variation



Save between 10% and 20% on N-fertilized with correct application



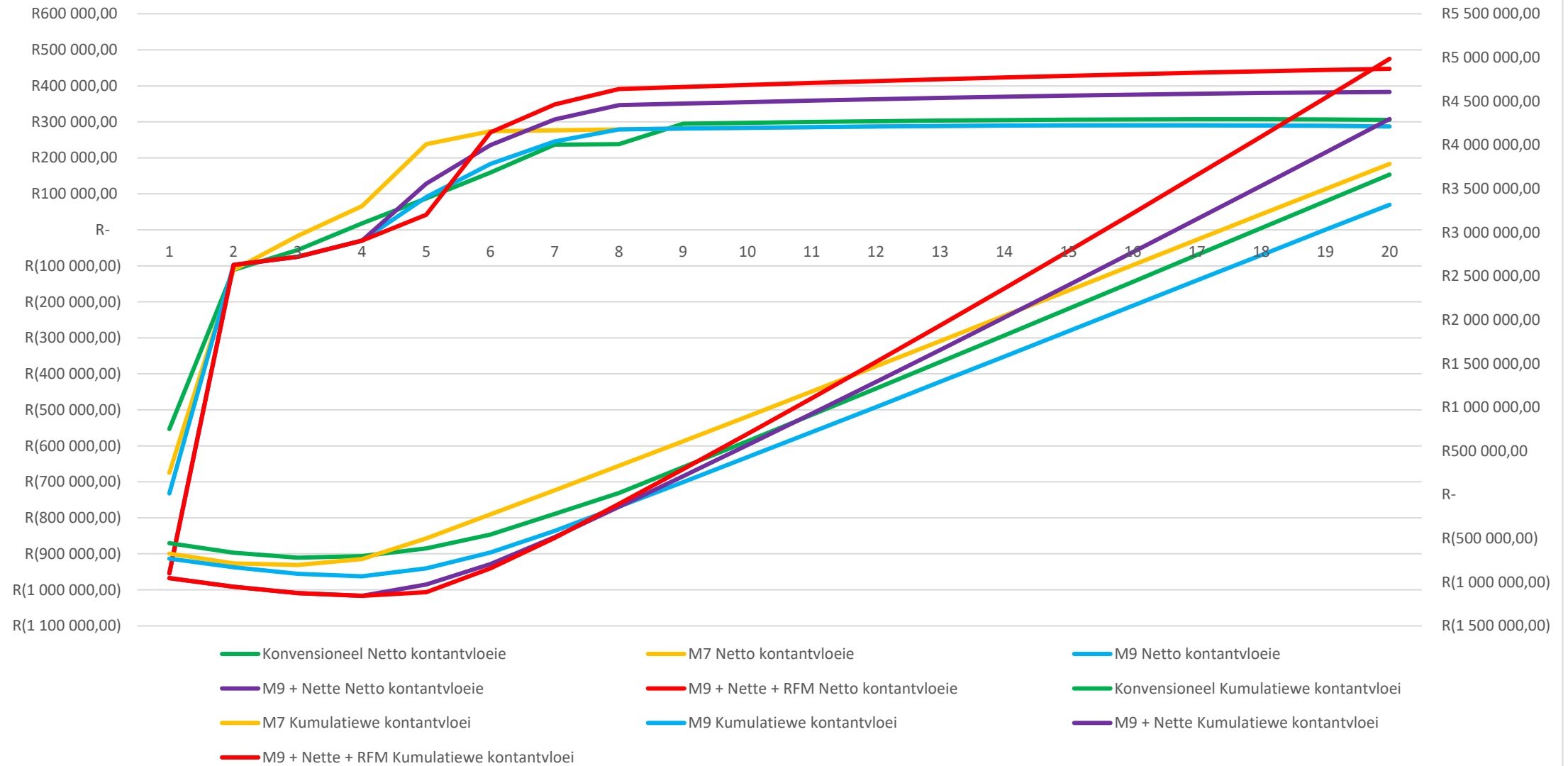
New tool on the market that can help us to get orcards more uniform and profitable.

Zone Label	Predicted Yield [Tons]	Ton/Ha	Area [Ha]
Low	13.8	44.26	0.31
Low/Medium	30.13	66.18	0.46
Medium	40.84	81.61	0.5
Medium/High	45.05	97.02	0.46
High	39.48	119.41	0.33
Total	169.31	82.09	2.06

Revolute estimation 82 t/ha
Final yield 83t/ha

Some areas that only produce 44t/ha and 66t/ha ?
Only 0.5ha of 2.06 ha was managed optimal (2%)

Nett and cumilative cash flow for new plantings of Rosy GLOW



Do the analysis

- Focus improvement where we can get good results!
- Most of additional systems have a fast payback time
 - (Quality and Class 1, uniformity)
 - Just don't lose it all again.
- Environments differ, but the combinations should be tested to find solution.
 - Leaf removal before harvest is a good example. It just not good to loose 50% of the effort again to sunburn!
- Budget and plan realistic
 - Resources are under pressure, make sure its used where its needed.
- Plan new orchards with long term sustainability in mind.