

Kelpak[®] improves table grape quality after cold-storage

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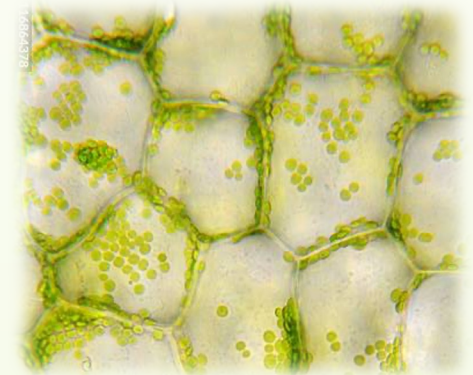
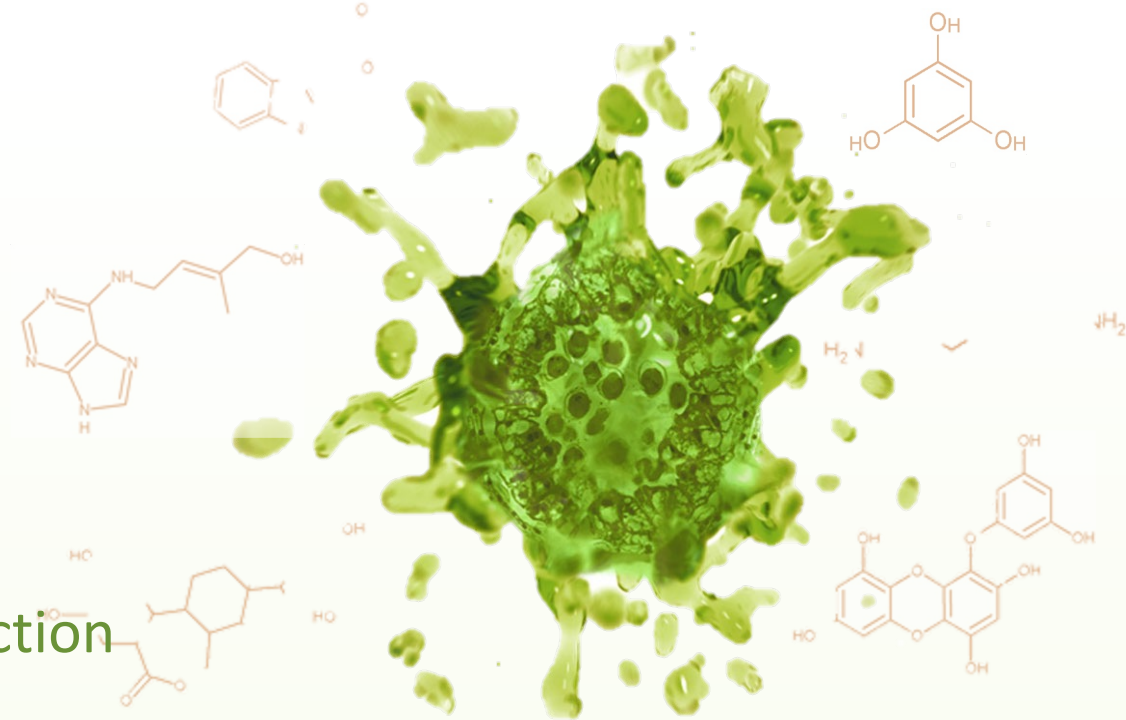


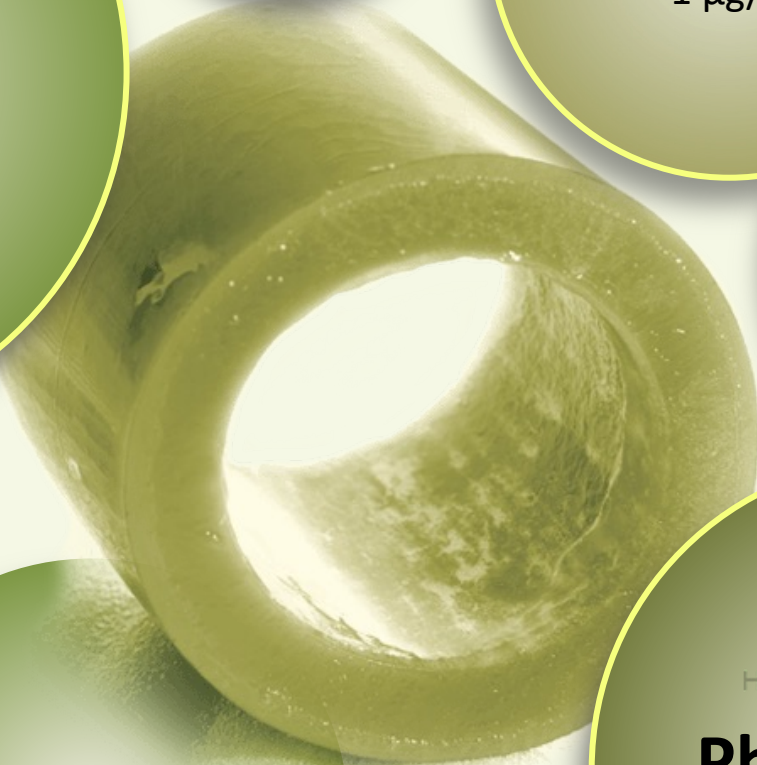
Harvesting



The Process

- Cold cellular burst
- Pressure differential extraction
- No chemicals, heat, freezing or dehydration
- Releasing delicate compounds in natural form
- Rapture ALL cells – including organelles and nucleus





Cytokinins

Brassinosteroids

1 µg/L

Alginates

Polyamines

4 mg/L

Nutrients

Organic acids

Auxins

0,02-2 µg/L

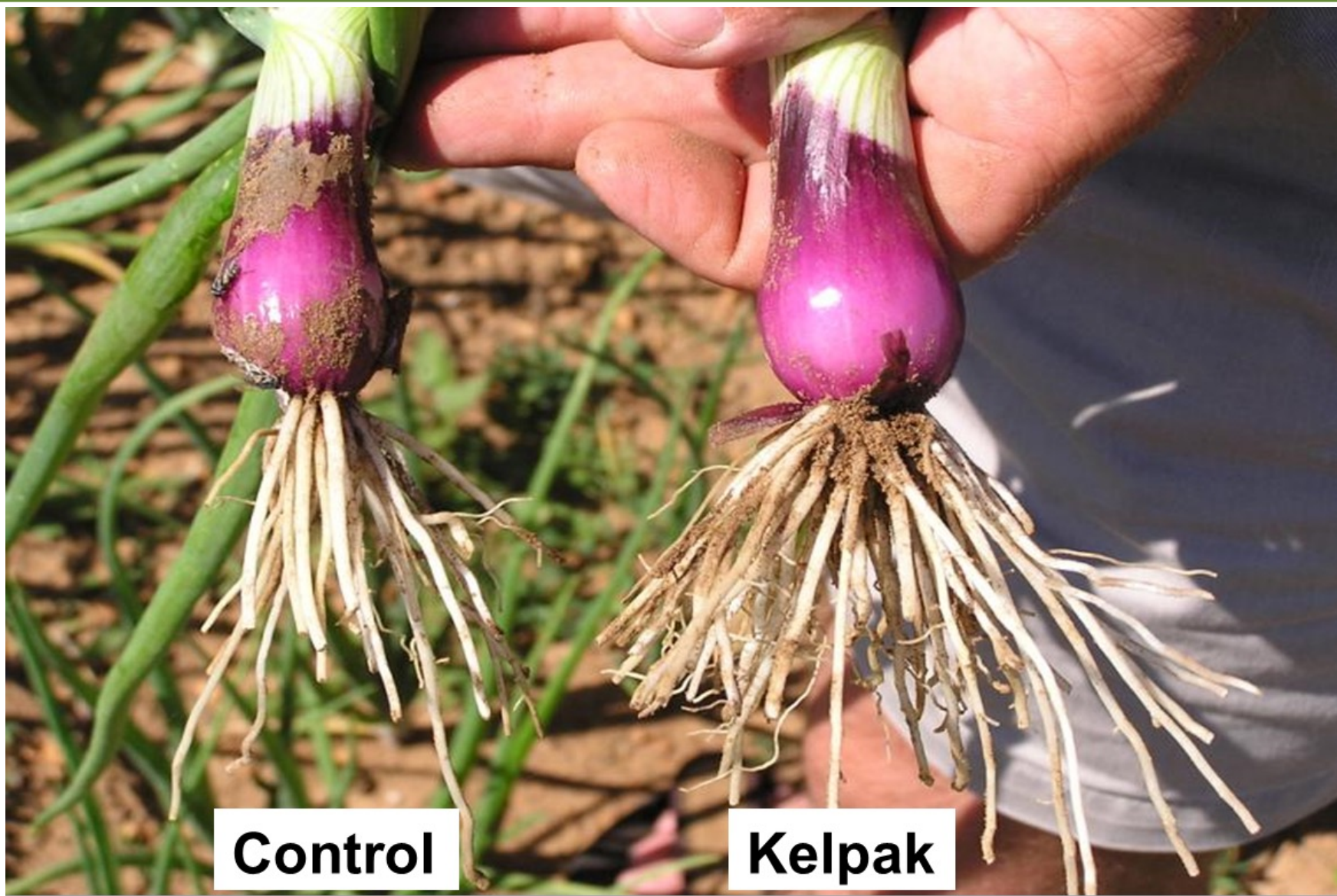
Phlorotannins

2.8 mg/L



Kelpak on rooting

Onions, California



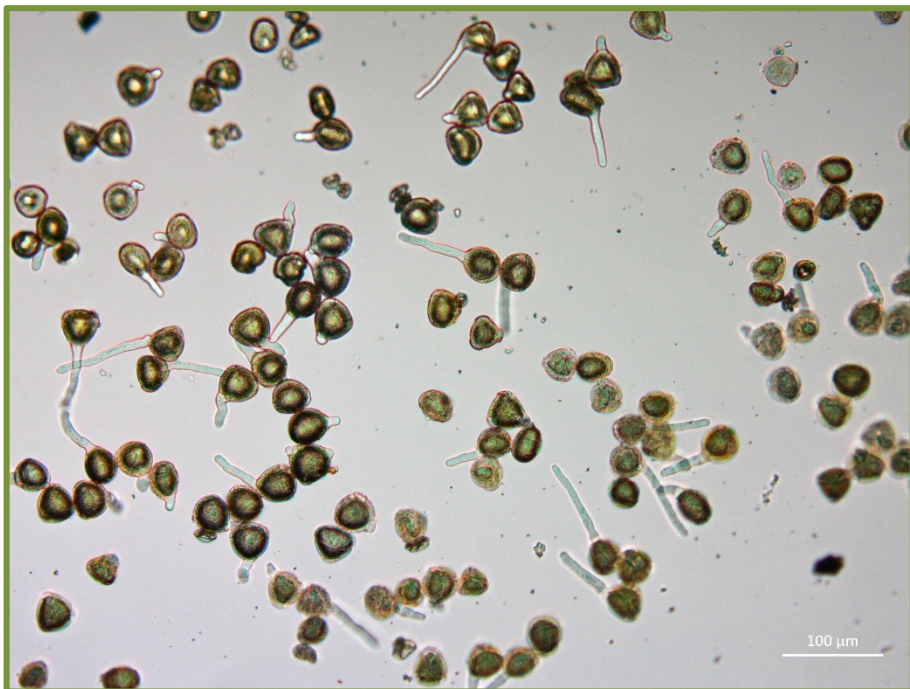
Control

Kelpak



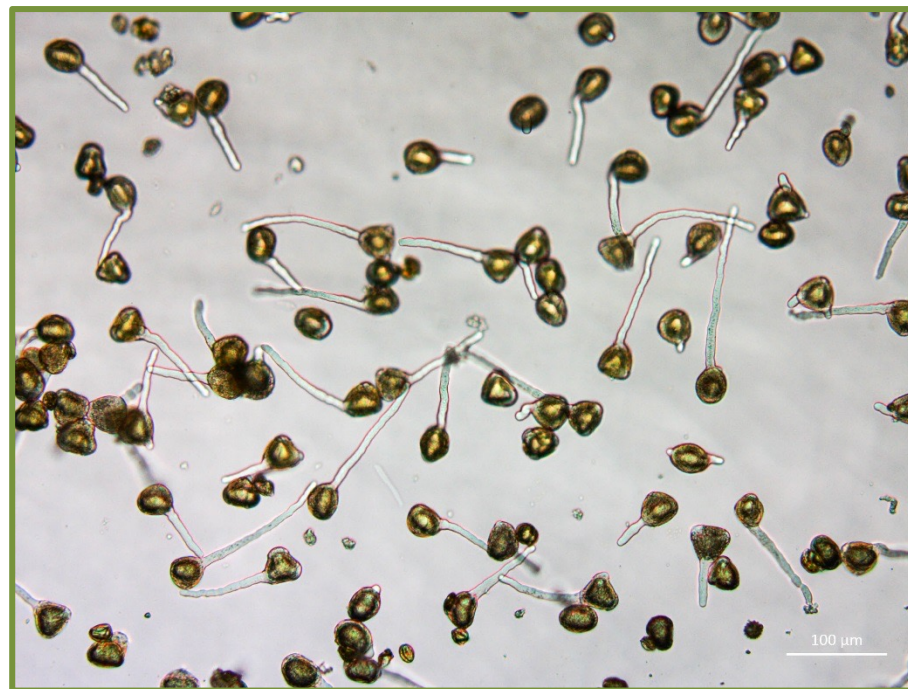
Kelpak on pollen growth

Cherries, South Africa



Control

Average germination = 47%
Average pollen tube length = 71 µm



Kelpak

Average germination = 64%
Average pollen tube length = 129 µm



Kelpak on fruit size

Autumn Crisp, South Africa



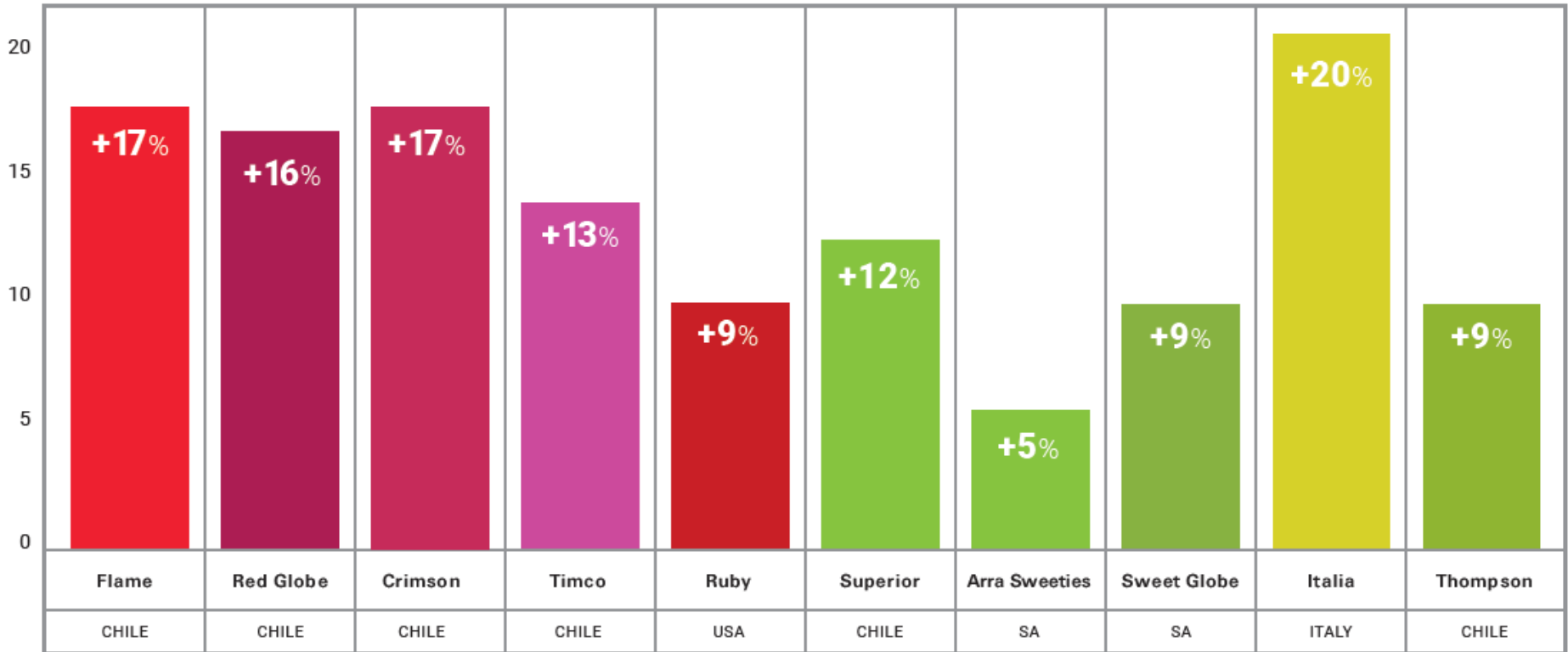


Kelpak on table grapes around the world

Berry size



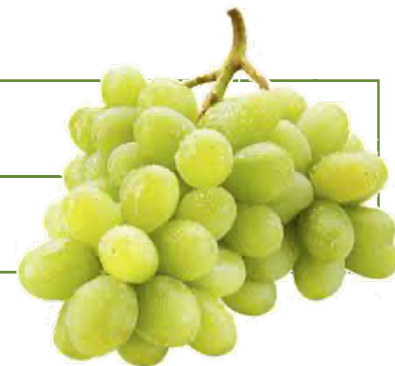
Kelpak on table grape berry size % increase above control





Kelpak on table grape quality

Trial design



- Trial area : Kakamas, Northern Cape, South Africa
- Conducted by : Chemical Research Technology
- Crop and variety : Table grapes var. Sweet Celebration™ and
var. Sweet Globe™
- Foliar application volume : B – 500 L/ha
: C – 750 L/ha
: D – F 1000 L/ha
- Experimental design : Randomized complete block
- Replication : 6
- Experimental unit : 2 vines selected from the centre of a 4-vine
: replicate





Kelpak on table grape quality

Treatment description



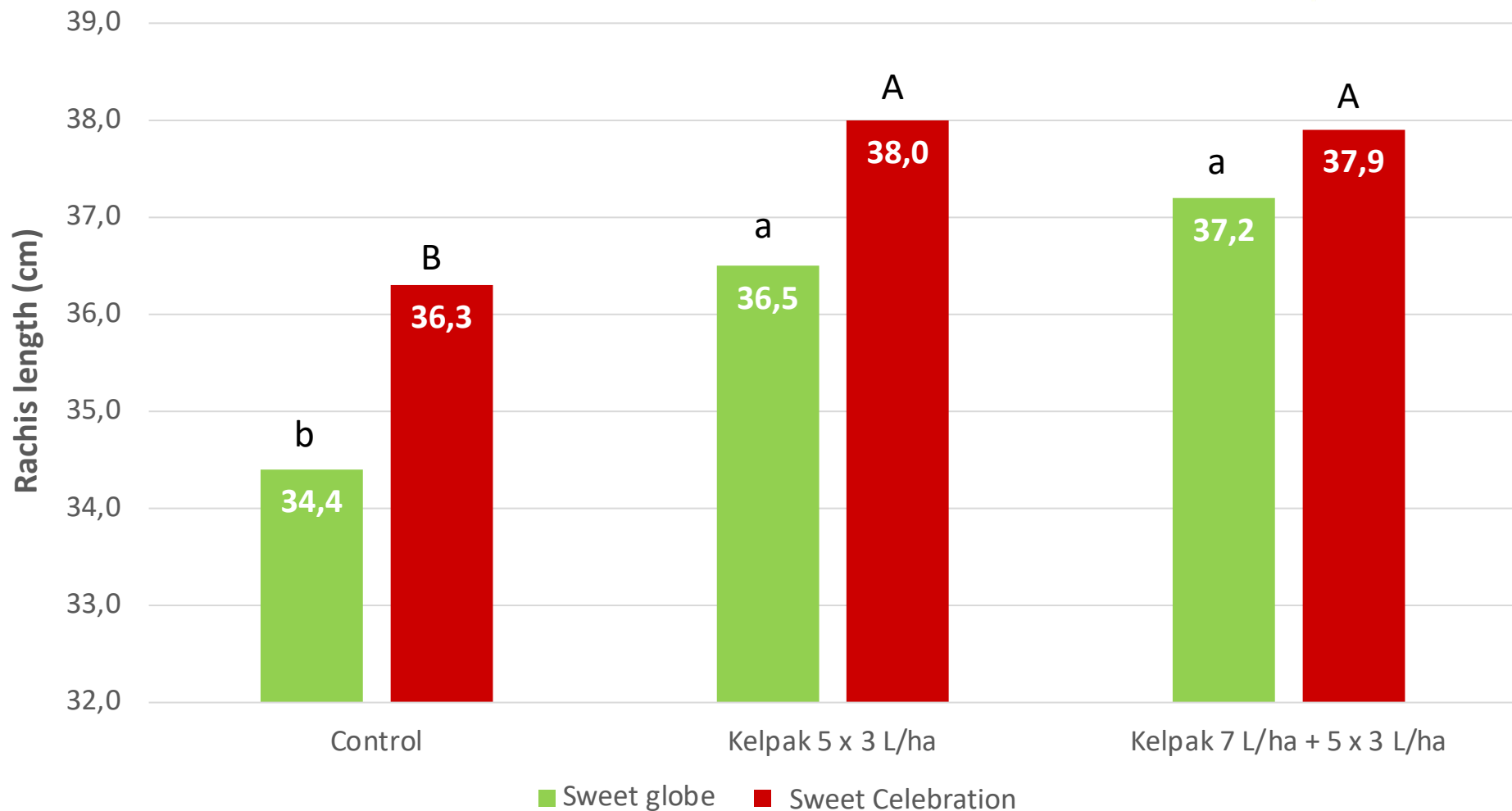
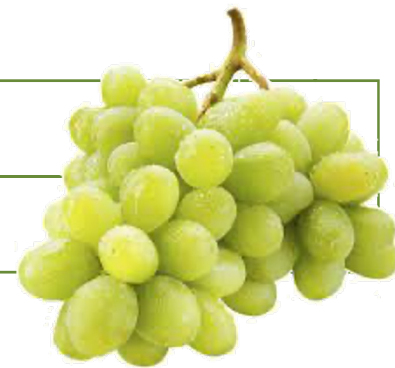
	A	B	C	D	E	F
<i>Treatments</i>	Bud burst	5 cm shoot length	Fruit set	Berries pea size	Berries beginning to touch	Veraison
<i>Control</i>	-	-	-	-	-	-
<i>Kelpak foliar sprays</i>	-	3 L/ha	3 L/ha	3 L/ha	3 L/ha	3 L/ha
<i><u>Kelpak fertigation</u> + foliar sprays</i>	<u>7 L/ha</u>	3 L/ha	3 L/ha	3 L/ha	3 L/ha	3 L/ha

Treatments applied in combination with the farmer's standard spray program which includes GA₃ and CPPU.



Kakamas, South Africa 2021-2022

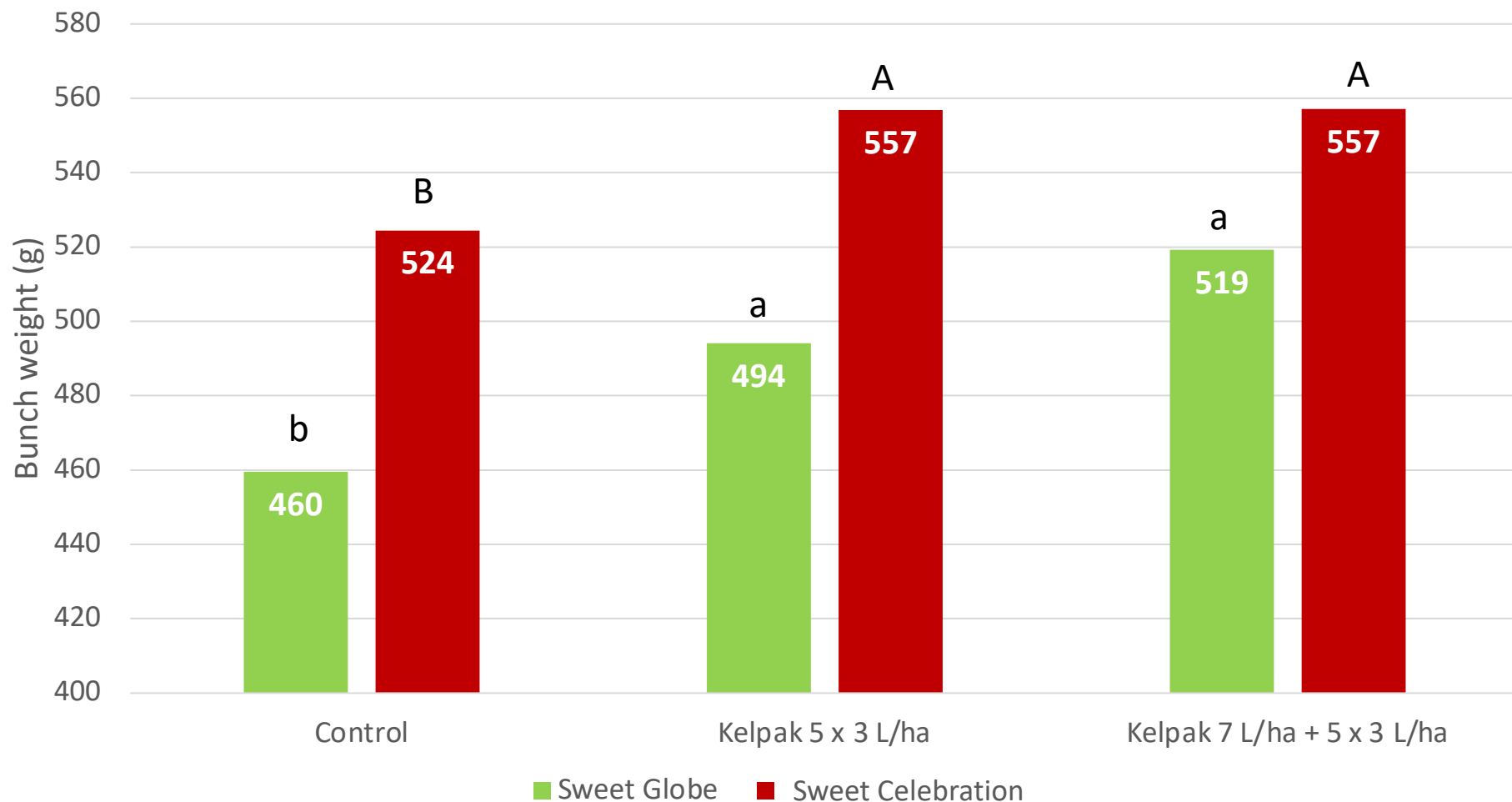
Sweet Globe™ & Sweet Celebration™





Kakamas, South Africa 2021-2022

Sweet Globe™ & Sweet Celebration™





Kakamas, South Africa 2021-2022

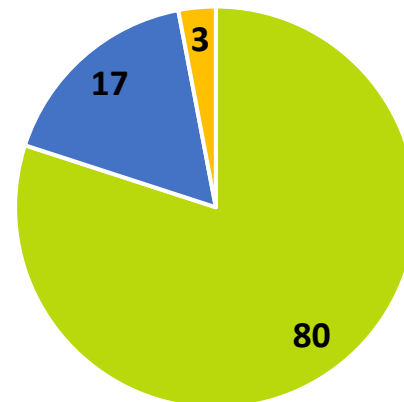
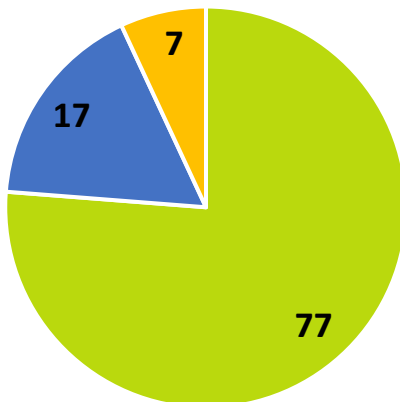
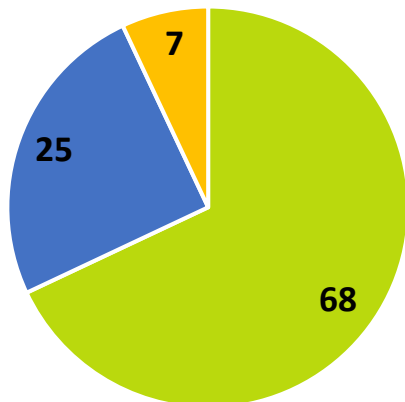
Bunch size distribution

Control

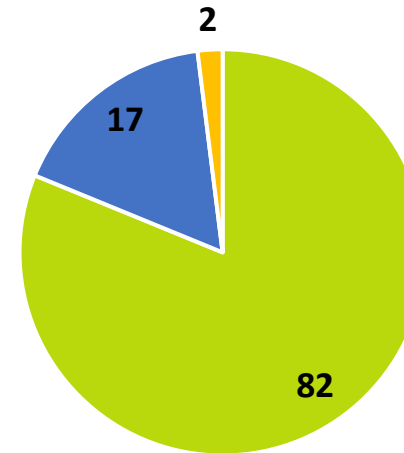
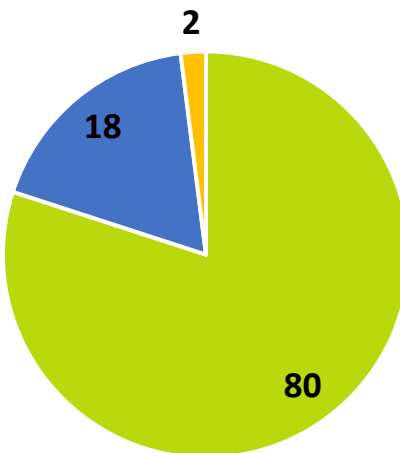
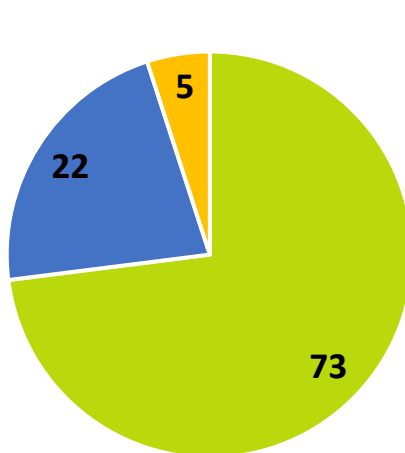
Kelpak 5 x 3 L/ha

Kelpak 7 L/ha + 5 x 3 L/ha

Sweet Globe™



Sweet Celebration™



Large (%) Medium (%) Small (%)

Large (%) Medium (%) Small (%)

Large (%) Medium (%) Small (%)

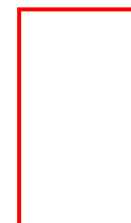
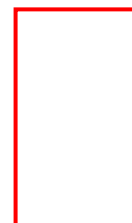
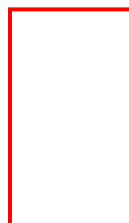


Sweet Globe™ & Sweet Celebration™

Quality assessment after 1-month cold storage



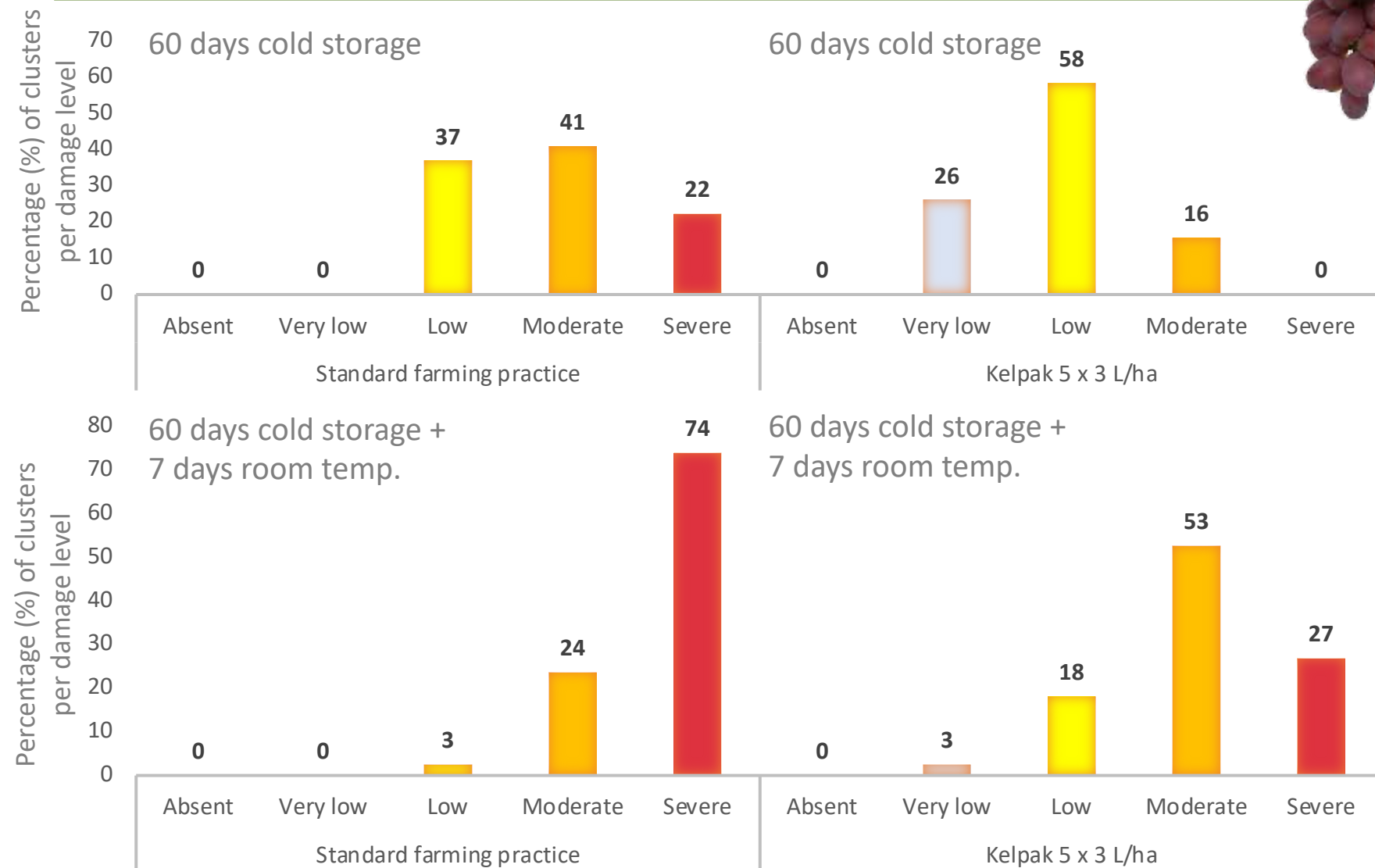
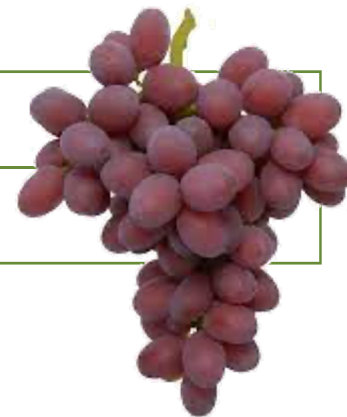
		<i>Treatments</i>	<i>Brix</i>	<i>Berry firmness</i>	<i>Berry browning</i>	<i>Rachis browning</i>	<i>Loose berries</i>
				%	%	%	%
Sweet Globe™		Control	15,5 a	60 b	35 b	42 c	7 a
		Kelpak 5 x 3 L/ha	16,2 a	75 a	18 a	31 b	4 a
		Kelpak 7 L/ha + 5 x 3 L/ha	16,0 a	77 a	20 a	21 a	4 a





Kelpak on rachis browning

Timco, Chile 2021





Thank you!