

Trial: Tradecorp Products Sweetcorn

Crop:	Sweetcorn var. Golden Sweet 2
Product:	Delfan Plus
Aim:	Yield Recovery on Saline & Hail Damaged Crop
Application:	By hand boom equivalent of 400 L /ha
Rate:	3 L /ha @ 27/09/2017 0-15 cm stage
Planted:	23/08/2017
Harvested:	29/11/2017
Assessment:	By hand 10 square meter block

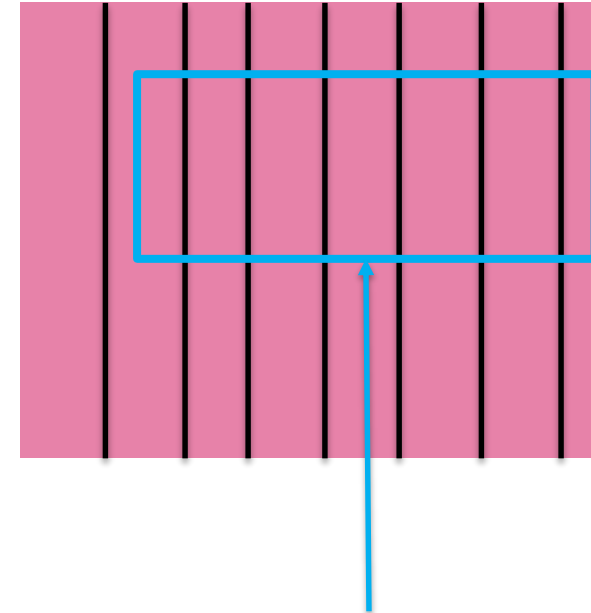
Other info:

Gatton, black clay soil, high saline and sodic soil conditions

The crop struggled to emerge, also suffered hot dry condition plus 2 hail storms

Crop Background & Trial Design

- Corn took 14 days to emerge, rather than the usual 7 days likely due to saline soil
- The field has saline soil
- The irrigation water is also salty / saline
- Weather was hot on emergence
- When plants were 10 cm high they were hit with a hail storm
- Delfan Plus was applied after first hail
- 2 weeks later they were hit with another hail storm
- Delfan Plus was applied after 1st hail approx. growth stage (27th Sept)
- 12 rows were sprayed with a hand boom = 10 m²
- Equivalent water rate 400 L /ha as typical for commercial sprayer



10m²

Soil & Water Analysis

Tested on 28/04/2017			
	Paddock ID		
Element	Unit	Trial Field	Optimum range
pH		6.5	6-6.5
EC	mS/cm	1.3	0.1-0.25
Organic Carbon	%	1.36	2-3
Organic Matter	%	2.99	
Nitrate-N	mg/kg	58	40-60
Phosphorus (BSES)	mg/kg	535	50-200
Phosphorous (Colwell)	mg/kg	156	50-100
Potassium	mg/kg	596	110-140
Calcium	mg/kg	4702	1100-3300
Magnesium	mg/kg	1860	200-480
Sodium	mg/kg	1059	50-72
Zinc	mg/kg	5.2	2-10
Copper	mg/kg	2.5	0.6-2
Iron	mg/kg	59.9	33-60
Manganese	mg/kg	31.8	6-12
Boron	mg/kg	2.33	1-2
Chloride	mg/kg	417	10-120
Sulfate	mg/kg	675	30-50
Ammonium Nitrogen	mg/kg	1.9	10-25
Silicon	mg/kg	1604	120-2000
Sioluble Silica	mg/kg	130	20-60
Exchangable Aluminium	mg/kg	1.4	9-45
Exchangable Hydrogen	mg/kg	0.3	1-4
P Buffer Index adjusted	L/kg	139	141-281
Crop		Cauliflower	
Irrigation Class		Drip	
soil texture		Clay Loam	
crop stage		Early Vegative	

Tested on 28/04/2017			
	Dam ID	Dam Water	
Element	Unit		Optimum range
pH		8.2	5 - 8.5
EC	ms/cm	2.81	0.28 - 0.9
Nitrate-N	mg/l	10	0.5 - 10
Phosphate	mg/l	0.07	0.5 - 2
Potassium	mg/l	7	0.5 - 15
Calcium	mg/l	135	10 - 60
Magnesium	mg/l	150	10 - 100
Sodium	mg/l	213	20 - 150
Sulfate	mg/l	28	5 - 50
Zinc	mg/l	0.01	0.5 - 2
Copper	mg/l	0	0.02 - 0.2
Manganese	mg/l	0.02	0.2 - 0.5
Iron	mg/l	0.05	0.01 - 0.3
Boron	mg/l	0.06	0.3 - 0.5
Chloride	mg/l	943	20 - 350
Total dissolved ions	mg/l	1798.4	175 - 500
Hardness	mg/l	954.8	150 - 300
Sodium absorption ratio (SAR)		3	2 - 10
Irrigation Class		4	
Comment			

Very High High Optimal Medium Low

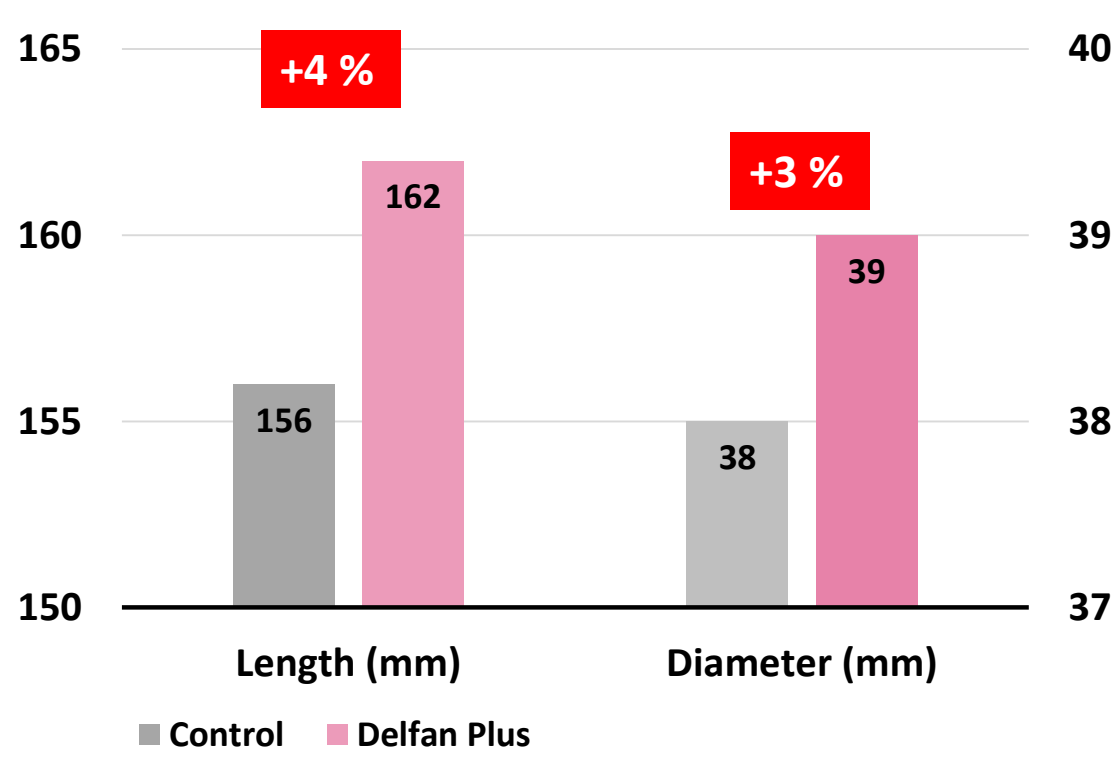
Post-Emergence before first Hail



Post-Emergence before first Hail



Results: Length and diameter (29/11/17)



- Cobs are longer and slightly thicker with more even fill

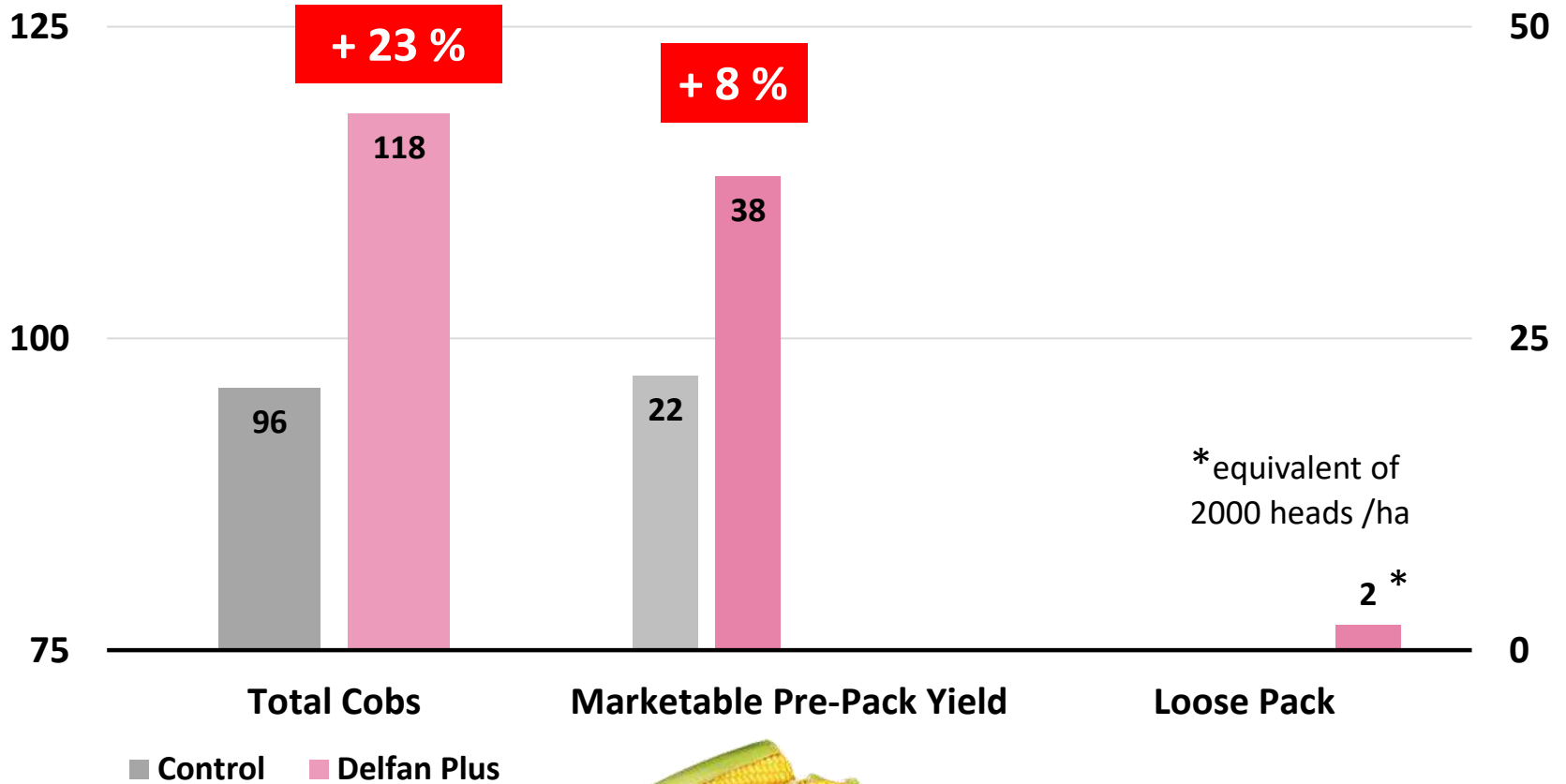
Results: Marketable Yield



Control

Delfan Plus

Results: Marketable Yield



Conclusions

- Delfan Plus applied at 3 L /Ha in a stressed corn crop at 6 leaf stage:
- increased Number of cobs +23%
- increased Pre-Pack Yield +8%
- increased Loose Pack Yield from 0 to 2 cobs
- The small plot trial showed very positive results and is now ready to test a field scale

