

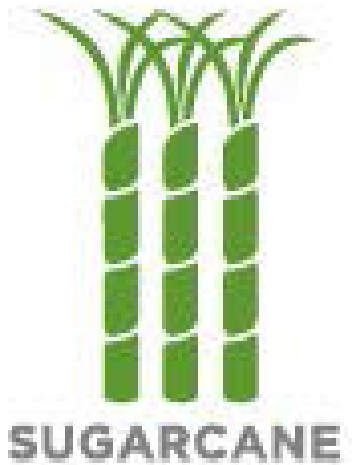


*“How UCL
handled their big
Midlands crop”*



RB Lütge

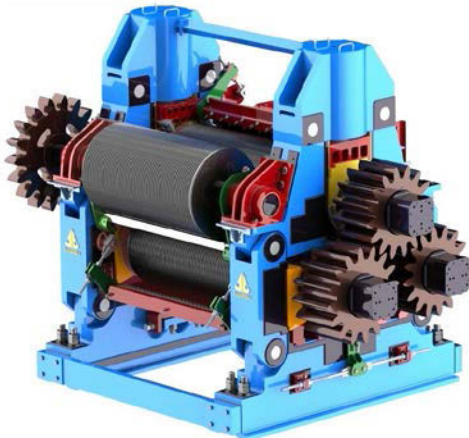
WHAT'S THE PROBLEM?



1 175 000t of cane from 1000 growers

375 000t

800 000t normal crush capacity



UCL Diversion History (tons)

	2019	2018	2017	2016	2015	2014	2013	2012	2011
GLEDHOW	90,066	8,060					2,653	5,840	
MAIDSTONE	71,221	63,027		5,505		9,647	40,187	3,587	3,637
NOODSBERG	72,409	858	40,763	47,190	12,926	133,298	245,263	151,737	21,488
AMATIKULU									
DARNALL				266		2,169		804	
ESTON						986			
SEZELA						279	5,988		
TOTAL	233,696	71,945	40,763	52,960	12,926	146,378	294,091	161,967	25,125

**Diversions have always been the
'go to' option**

SO WHAT'S CHANGED?

1

Umzimkulu and Darnall mill closures

2

New cane varieties

- **Greater yield**
- **Greater farm area harvested annually**

2004	
Variety	% crush
N12	55.37%
N16	33.31%
N31	2.68%
N21	2.67%
N25	1.09%
N29	0.97%
N19	0.71%
N11	0.60%
Mixed	0.59%
N23	0.53%
N26	0.50%
OTHER	0.57%
N36	0.16%
N22	0.14%
N27	0.12%

2020	
Variety	% crush
N48	25.4%
N12	20.5%
N54	15.7%
N37	5.6%
N31	5.6%
N52	4.7%
N39	4.7%
N41	3.8%
N35	3.0%
N16	2.0%
N61	0.9%
N36	0.7%
N50	0.3%
N51	0.2%
N64	0.2%

← -35%

←

←

-31%

SO
WHAT'S
CHANGED?

1

Umzimkulu and Darnall mill closures

2

New cane varieties

3

Decent climatic conditions

intervention #1



Early start on 14 Feb

- **Short 8-week off-crop**

Cost of shorter off-crop

- Additional gantry crane to allow parallel Diffuser and mill work – **R800k**
- Purchased additional Mill and other critical spares instead of refurbishing existing – **R500k**
- Additional Mobile crane hours on site – **R100k**
- Additional man hours – **R250k**

R1.65m

intervention #1



Early start on 14 Feb

- Offered R200/tRV to start early

-34 000t

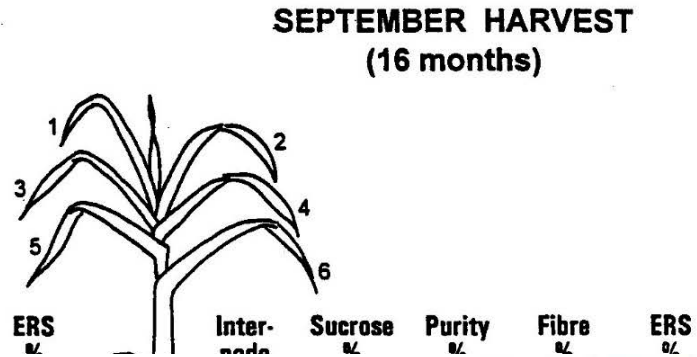
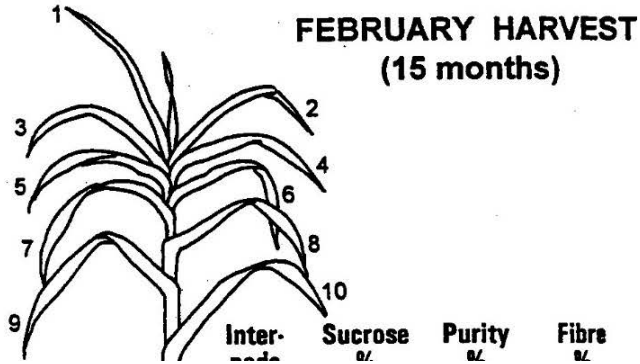
intervention #2



Topping Restrictions

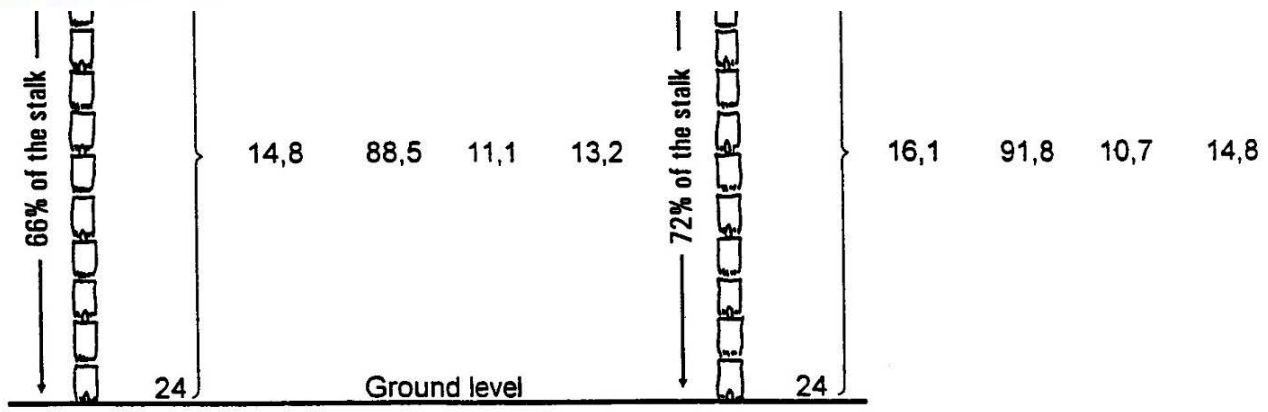
- Chasing reduced tonnage
- Minimal literature





Inter-	Sucrose	Purity	Fibre	ERS	Inter-	Sucrose	Purity	Fibre	ERS
node	%	%	%	%	node	%	%	%	%

OUTDATED



Assumed RV price R4,150
 Average input RV 12.91%

SECTION cm	Proportion of mass	Proportion of mass	MASS t/Ha	POL%	Non-POL	BRIX	PURITY	FIBRE	MOIST	RV %	RV tons	VALUE R/t
m-10	4.27%		3.18	1.11	4.95	6.06	18.32	9.05	84.89	-1.02%	-0.03	-R42.33
10-20	5.08%		3.79	2.31	4.39	6.7	34.48	9.04	84.26	0.40%	0.01	R16.60
20-30	5.67%	6.26%	4.23	4.62	4.22	8.84	52.26	8.92	82.24	2.78%	0.12	R115.37
30-40	5.93%	6.54%	4.42	7.48	3.86	11.34	65.96	9.07	79.59	5.96%	0.26	R247.34
40-50	5.81%	6.41%	4.33	8.86	3.96	12.82	69.11	9.04	78.14	7.12%	0.31	R295.48
50-60	5.70%	6.29%	4.25	9.86	3.65	13.51	72.98	9.99	76.5	8.23%	0.35	R341.55
60-70	6.34%	7.00%	4.73	11.58	3.02	14.6	79.32	11.36	74.04	10.17%	0.48	R422.06
70-160	61.20%	67.51%	45.63	14.42	2.1	16.52	87.29	12.53	70.95	13.34%	6.09	R553.61
TOTAL Sta	100%		74.56	11.51	2.82	14.32	76.04	11.37	74.30	10.18%	7.59	R422.45
				Avg Pol	Avg Non-Pol	Avg Brix	AvgPty	Avg Fib	Avg Mois	Avg RV		Avg R/t
TOPPED Stalk			67.59	12.51	2.63	15.14	81.08	11.61	73.25	11.25%	7.61	R467.08

Local trial

- Dave Wilkinson
- Friedel Eggers
- Craig Breetzke

Conclusion

Only growers within 5km from the mill lose up to R75 per ton at 30cm

Trial info & data					RV price	
Noodsberg					May-20	RV Income
Var	Trt	RV%	TCH	TRVH	(R/t)	(R/ha)
All	Control	11.37	93.23	10.60	4525.34	47,970
All	15 cm	12.64	83.90	10.60	4525.34	47,991
All	30 cm	13.37	77.36	10.34	4525.34	46,806

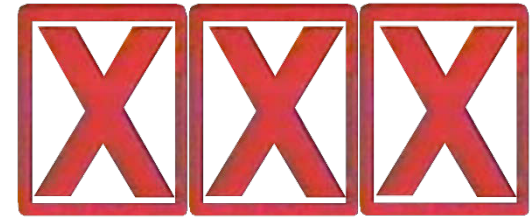
intervention #2



Topping Restrictions

- Chasing reduced tonnage
- Minimal literature
- Minimum 30cm top
- R40 per ton RV to growers

Compliance RULES



- Must top a minimum of 30cm below the growing point.
- Deliveries will be monitored both at the weighbridge, cane yard and infield. Any poorly topped loads in any of these areas will trigger a compliance warning.
- A grower will be allowed two warnings. Each warning will, however, cover all cane already loaded on trailers. In other words, the second warning already on a road will not trigger a second warning. This does not apply to unloaded cane as the grower has the opportunity to correct the topping.
- A third incident will result in that load and all other cane emanating from the current field, whether in field or on trailers, being rejected until corrective measures are in place.
- If a grower goes for 10 weeks without receiving a warning, then all existing warnings are cancelled and the process starts again.

MGB APPROVED

intervention #2

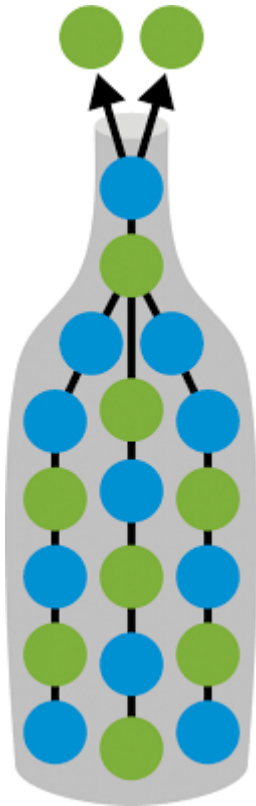


Topping Restrictions

10t/Ha =

-125 000t

intervention #3



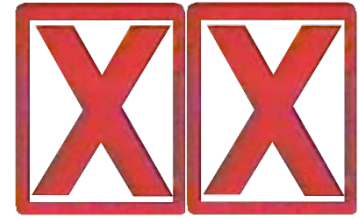
Increased throughput

Throughput enhancements

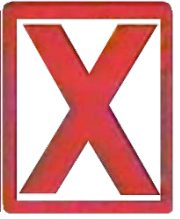
- Added back Cane knife previously removed in 2008
- Modified Shredder washboard
- New Diffuser screens to prevent in season failures
- Increased Exhaust steam pressure from 84 to 95kPa
- 3 year drive to improve OTE, focus on top 10 items
- Better quality cane due to topping = less issues in Front end

Major emphasis on cane quality

Cane below 75% but above 70% purity:



- A grower delivering cane that has tested below 75% purity will receive a compliance warning. The warning will however, cover all cane already loaded into trailers.
- The second incident will result in all cane emanating from the current field, whether infield or in trailers, being rejected until corrective measures are in place.
- If a grower goes for 10 weeks without receiving a warning, then all existing warnings are cancelled and the process starts again.



Cane below 70% purity

- A grower delivering cane that has tested below 70% purity will result in all cane emanating from the current field, whether infield or in trailers, being rejected until corrective measures are in place, assuming this is possible.
- If a grower goes for 10 weeks without receiving a warning, then all existing warnings are cancelled and the process starts again.

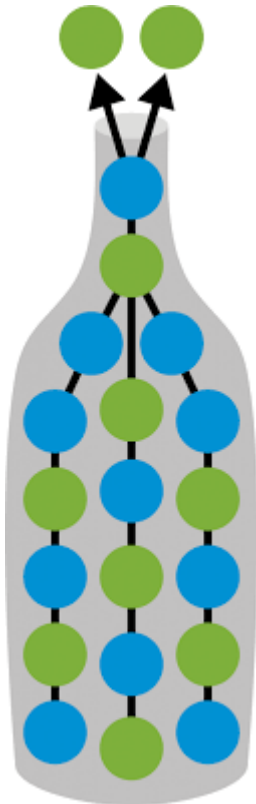
84 000t

		2016	2017	2018	2019	2020
		to date				
Tons cane crushed	TD	522,514	605,273	598,883	575,583	659,848
Overall time efficiency	TD	81	87	87	87	91
Suc % cane	TD	13.26	14.02	13.88	13.97	13.21
Fibre % cane	TD	13.95	13.37	13.74	13.63	13.21
RV % cane	TD	11.87	12.77	12.82	12.83	11.89
Cane to sugar ratio	TD	8.93	8.25	8.51	8.55	8.87
Sucrose extraction	TD	96.22	96.99	96.11	96.17	96.20
Pol factor	TD	98.73	98.81	99.22	98.69	99.17
Suc boiling house recovery	TD	87.37	88.70	87.68	86.64	88.37
Suc overall recovery	TD	84.07	86.03	84.27	83.32	85.01
Cane Pty	TD	86.13	87.55	86.92	86.09	86.94
non Pol	TD					



100 000t

intervention #3



Increased throughput

-51 000t

intervention #4



-48 500t

Completed to date

OUTCOME

Stand-over Potential	375 000t
• Early start	-34 000t
• Topping restrictions	-125 000t
• Increased throughput	-51 000t
• Diversions	-48 500t
Current stand-over balance	117 000t

Other Considerations

- Room for possible reduction in estimates
- Possible late season diversions
- Good chance we will beat our crush target

Potential reduced stand-over tonnage 85 000t

- 50% of stand-over cane is less than 18 months old

2021 & **Beyond**

Repeat of successful interventions

**Mill expansion to crush additional
150 000t of cane**

