



SOUTH AFRICAN SUGARCANE  
RESEARCH INSTITUTE

# MECHANISATION REPORT No. 2 2021 UPDATE



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# MECHANISATION REPORT NO. 2

2021 UPDATE

## SYSTEMS AND COSTS OF LAND PREPARATION, PLANTING AND RATOON MANAGEMENT

The costs given in the following tables are based on replanting 20 hectares per year and using new equipment with 60 kW 2WD tractor costs based on an annual usage of 1000 hours. Expensive implements are under-utilised and this results in high implement costs. The larger the area to replant, the greater the utilisation of the implement and hence its cost per unit of area will be reduced. The examples merely serve as a guide and growers should carefully compare the operations included and adjust these to suit their systems, if necessary. Growers are referred to the table on the last page for costs of individual operations.

### LAND PREPARATION

Operations involving land smoothing, drainage and conservation structures are considered to be part of soil and water conservation and will therefore not be considered in this exercise on land preparation.

The main objectives in land preparation are assumed to be:

- to effectively destroy the old crop
- to prepare a seedbed for planting.

The two categories of soil to be considered in this exercise are:

- i) heavier soils (loams and clays)
- ii) lighter soils (loamy sands and sands).

The operations listed in the tables that follow may be considered to be the basic minimum, the number of harrowings for example being dependent on factors such as the presence or absence of grass weeds, soil moisture content, season of operation and volunteers. If a lime application operation is required, please refer to the table on the last page for individual operation costs.

#### 1. Traditional system:

<b>TRADITIONAL SYSTEM: Operations:</b>	<b>FUEL: (l/ha)</b>	<b>COST: (R/ha)</b>
Deep plough (2f rev disc)	30	1012
Disc Harrow	16	558
Plough (2f rev disc)	30	1012
Disc Harrow	16	558
Disc Harrow	16	558
Ridger only	10	593
<b>TOTAL:</b>	<b>118</b>	<b>4291</b>

2. **Conventional tillage system (heavier soils):**

<b>CONVENTIONAL SYSTEM: (HEAVY SOILS)</b>	FUEL:	COST:
<b>Operations:</b>	(l/ha)	(R/ha)
Shallow (100mm) 2f m/b 1way (May)	20	893
Disc harrow (June)	16	558
Plough (200-250mm) 2f m/b 1way (Aug)	25	999
Disc harrow (150mm) (Aug)	16	558
Ridger only	10	593
<b>TOTAL:</b>	<b>87</b>	<b>3601</b>

3. **Conventional tillage system (sandy soils):**

<b>CONVENTIONAL SYSTEM: (LIGHT SOILS)</b>	FUEL:	COST:
<b>Operations:</b>	(l/ha)	(R/ha)
Shallow (100mm) rotary hoe (May)	25	1122
Disc harrow (100mm) (June)	8	390
Disc harrow (100mm) (Aug)	8	390
Ridger only	10	593
<b>TOTAL:</b>	<b>51</b>	<b>2495</b>

4. **Minimum tillage system, chemical (heavier soils) - Option 1:**

<b>MINIMUM TILLAGE SYSTEM (SANDY SOILS)</b>	FUEL:	COST:
<b>Operations:</b>	(l/ha)	(R/ha)
Full cover spray Glyphosate 360gm/l @ 8l/ha (1 labour-day)	0	195
from Oct to Mar onwards (8l/ha)	0	552
Min tiller (2r rotary hoe+ridgers+fert appl in interrow (Oct-Mar)	15	1104
<b>TOTAL:</b>	<b>15</b>	<b>1851</b>
Add stool plough- improved efficacy	12	515

**Note:** The efficacy of chemical stool eradication in heavier soils is improved if the stools are undercut ( $\pm 100$  mm) by using a stool plough one week after spraying. This will increase the costs as indicated in the table above.

5. **No-tillage system, chemical (sandy soils):**

<b>NO TILLAGE SYSTEM (SANDY SOILS)</b>	FUEL:	COST:
<b>Operations:</b>	(l/ha)	(R/ha)
Full cover spray Glyphosate (1 labour-day)	0	195
from Oct to Mar onwards @ 8l/ha	0	552
Ridger only	10	593
<b>TOTAL:</b>	<b>10</b>	<b>1340</b>

6. **Reduced tillage system, manual (sandy soils) – Option 2:**

<b>REDUCED TILLAGE SYSTEM - MANUAL (SANDY SOILS)</b>	FUEL:	Mech Cost:	Labour-days	Labour	Operation
<b>Operations:</b>	(l/ha)	(R/ha)	per ha	cost (R/ha)	cost (R/ha)
Chipping (May) @ 40 labour days/ha	0	0	40	7808	7808
Ridger only	10	593	0	0	593
<b>TOTAL:</b>	<b>10</b>	<b>593</b>	<b>40</b>	<b>7808</b>	<b>8401</b>

**Note:** Irrespective of the system of crop eradication used, the cost of hand labour for roguing must be added to the above costs.

## PLANTING

In comparing the various planting methods, the following assumptions are made:

- flat culture is desirable;
- some fertiliser is required in the planting furrow;
- plant cane warrants one pre- and one post-emergent application of herbicide for weed control;
- the cost of materials is the same for all systems and is excluded from these comparisons;
- one labourer costs **R195,21 per day** (9 hours);
- Glyphosate (360 g/l) costs **R69,00 per litre** (assumed retail price)

### 1. Machine planting

<b><u>MACHINE PLANTING</u></b>	Fuel (l/ha)	Mech Cost: (R/ha)	Labour-days per ha	Labour cost (R/ha)	Operation cost (R/ha)
Machine planting (at 1ha/day)*	22	2218	10	1952	4170
Pre-emergent herbicide	3	143	1	195	338
Top dress fertilizer	3	169	1	195	364
Post-emergent herbicide	3	143	1	195	338
Hand-hoeing grasses	0	0	10	1952	1952
Spot spray	0	0	1	195	195
<b>TOTAL:</b>	<b>31</b>	<b>2673</b>	<b>24</b>	<b>4685</b>	<b>7358</b>

\* This value can range typically from 6 to 10 labour days per hectare depending on labour productivity.

### 2. Semi-mechanical planting

<b><u>SEMI MECHANICAL PLANTING</u></b>	Fuel (l/ha)	Mech Cost: (R/ha)	Labour-days per ha	Labour cost (R/ha)	Operation cost (R/ha)
Ridging and Fert applic (2 row)	12	392	1	195	587
Planting	0	0	20	3904	3904
Covering	12	666	0	0	666
Pre-emergent herbicide	3	143	1	195	338
Top dress fertiliser	3	169	1	195	364
Post-emergent herbicide	3	143	1	195	338
Hand-hoe	0	0	10	1952	1952
Spot spray	0	0	1	195	195
<b>TOTAL:</b>	<b>33</b>	<b>1513</b>	<b>35</b>	<b>6832</b>	<b>8345</b>

### 3. Manual planting

<b><u>MANUAL PLANTING</u></b>	Fuel (l/ha)	Mech Cost: (R/ha)	Labour-days per ha	Labour cost (R/ha)	Operation cost (R/ha)
Ridging only	10	593	0	0	593
Fertiliser application	0	0	1	195	195
Planting	0	0	20	3904	3904
Covering	0	0	5	976	976
Pre-emergent herbicide	0	0	1	195	195
Top dress fertiliser	0	0	1	195	195
Post-emergent herbicide	0	0	1	195	195
Hand-hoe	0	0	10	1952	1952
Spot spray	0	0	1	195	195
<b>TOTAL:</b>	<b>10</b>	<b>593</b>	<b>40</b>	<b>7808</b>	<b>8401</b>

Operations such as the application of nematicides and filtercake and seed-dipping, are excluded as they are specific to soil types and season. Costs of materials were excluded in the planting costs.

## RATOON MANAGEMENT

Within the industry there are three common situations which require different management.

Relatively few operations are required in the management of ratoon crops but weed control is the most difficult to cost as there is no best procedure. The type and number of operations depends on factors such as time of harvest, soil type and the spectrum and density of weeds that occur.

Operations such as subsoiling, stool pruning, furrow-forming and nematicide application are not included as they are not generally necessary.

### 1. Cane burnt and tops windrowed

<b><u>CANE BURNED &amp; TOPS WINDROWED</u></b>	Fuel (l/ha)	Mech Cost: (R/ha)	Labour-days per ha	Labour cost (R/ha)	Operation cost (R/ha)
Raking tops	4	189	0	0	189
Topdress fertiliser	3	169	1	195	364
Post-emergent herbicide (long term)	3	143	1	195	338
Hand weed	0	0	10	1952	1952
<b>TOTAL:</b>	<b>10</b>	<b>501</b>	<b>12</b>	<b>2343</b>	<b>2844</b>

### 2. Cane burnt and tops left scattered

<b><u>CANE BURNED &amp; TOPS LEFT SCATTERED</u></b>	Fuel (l/ha)	Mech Cost: (R/ha)	Labour-days per ha	Labour cost (R/ha)	Operation cost (R/ha)
Spread tops and clean up	0	0	3	586	586
Topdress fertiliser	3	169	1	195	364
Post-emergent herbicide (long term)	3	143	1	195	338
Hand weed	0	0	8	1562	1562
<b>TOTAL:</b>	<b>6</b>	<b>312</b>	<b>13</b>	<b>2538</b>	<b>2850</b>

### 3. Mulch blanket

<b><u>MULCH BLANKET</u></b>	Fuel (l/ha)	Mech Cost: (R/ha)	Labour-days per ha	Labour cost (R/ha)	Operation cost (R/ha)
Spread residue & tidy field	0	0	3	586	586
Topdress fertiliser	0	0	1	195	195
Spot spray, twice	0	0	2	390	390
Hand weed	0	0	4	781	781
<b>TOTAL:</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>1952</b>	<b>1952</b>

#### For all systems:

- material costs are excluded
- add verge control:

Assume 10% of total area will be slashed 4 times annually i.e) 10% of 200 ha = 20 ha

Cost per slashing = R471 per ha x 20 ha = R 9413

Cost for slashing = R 9413 x 4 = R 37651

Cost per hectare under cane = R 37651 ÷ 200 ha = **R 188,26 /ha**

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**PERFORMANCE STANDARDS AND COSTS FOR MECHANICAL SUGARCANE PRODUCTION SYSTEMS: 200HA CANE FARM REPLANTING 20HA/YR**

Costs are based on a 60 kW tractor: **R 239.19** /hour + implement cos NB: The operational costs per hectare shown below are for 1 pass only; For steep or poorly laid out fields these figures below must be inflated

Machinery and equipment	Cost price (Rand)	Working width (m)	Efficiency (%)	No. of passes (no.)	Lighter soils						Heavier soils					
					Speed (km/h)	Work-rate (h/ha)	Annual utilisation (hours)	Implement cost (R/h)	Operation cost (R/ha)	Fuel (l/ha)	Speed (km/h)	Work-rate (h/ha)	Annual utilisation (hours)	Implement cost (R/h)	Operation cost (R/ha)	Fuel (l/ha)
Subsoil: single tine	25000	1.2	90	1	4.0	2.31	46	59.25	691	15	3.0	3.09	62	45.57	879	20
Ripper : 3 tine	46000	1.5	90	1	4.0	1.85	37	132.72	689	20	3.0	2.47	49	103.03	845	25
Plough : 2f rev mb-shallow	92000	0.8	85	2*	4.5	3.27	131	90.55	1078	16	4.5	3.27	131	90.55	1078	20
2f rev mb	92000	0.8	85	2	4.5	3.27	131	90.55	1078	20	4.0	3.68	147	83.10	1185	25
2f mb-shallow	19000	0.8	80	2*	4.5	3.47	139	17.89	893	16	4.5	3.47	139	17.89	893	20
2f mb	19000	0.8	80	2	4.5	3.47	139	17.89	893	20	4.0	3.91	156	16.44	999	25
2f disc plough	40000	0.8	85	2	4.5	3.27	131	39.37	910	25	4.0	3.68	147	36.13	1012	30
3f rev mb	117000	1.2	85	2	4.5	2.18	87	159.21	868	28	4.0	2.45	98	144.49	940	32
chisel plow	129000	2.0	90	4**	5.0	1.11	89	180.03	466	15	4.5	1.23	99	165.75	500	18
Disc harrow: light, <150mm	57000	1.8	80	3	6.0	1.16	69	97.65	390	8	5.0	1.39	83	84.06	449	10
heavy, >150mm	115000	2.0	80	3	5.0	1.25	75	177.11	520	12	4.5	1.39	83	162.70	558	16
Stool plough:	21000	1.2	90	1	-	-	-	-	-	-	5.5	1.68	34	66.54	515	12
Weeding: 2 row cultivator	23600	2.4	85	2	6.0	0.82	33	76.81	258	4						
Rotary hoe: very fine tilth	100000	2.0	85	1	2.6	2.26	45	256.67	1122	25						
normal tilth	100000	2.0	85	1	3.5	1.68	34	326.76	951	18						
Min. tiller: rotary + ridge	110000	2.4	80	1	2.6	2.00	40	312.13	1104	15						
Lime box: 3m wide	60000	3.0	50	1	6.0	1.11	22	283.91	581	4						
Fert. spreader: (1D broadcast) 500L	13500	6.0	50	1	5.0	0.67	120	15.02	169	3						
Fert. spreader: (broadcast)	67000	6.0	65	1	5.0	0.51	92	91.11	169	3						
Herbicide applicator: (boom)	33000	6.0	70	2	4.5	0.53	212	30.23	143	3						
Mist blower (300-500L mounted)	88000	18.0	70	1	3.5	0.23	41	235.67	108	2						
2 furrow ridger + 2 fert applicators	29000	2.4	90	1	4.5	1.03	21	141.92	392	12						
Ridger: (1 furrow per pass)	18600	1.2	90	1	4.5	2.06	41	48.89	593	10						
Coverer: (one row per pass)	26500	1.2	85	1	4.5	2.18	44	66.68	666	12						
Planter: cane (1 row)	110000	1.2	45	1	3.0	6.17	123	120.20	2218	22						
Planter: Cane (2 row) - min till	190000	1.8	60	1	2.5	3.70	74	307.34	2024	22						
Planter: Seed drill/planter	120000	1.8	60	1	4.0	2.31	46	290.35	1226	14						
Rake or windrow tops:	15500	2.5	90	1	6.0	0.74	133	16.01	189	4						
Grader-land plane:	31000	2.0	80	3	4.5	1.39	83	45.72	396	15						
Verge control: (slash 10% total area)	33500	1.5	80	4	4.0	2.08	165	36.09	574	11						
Verge control: (slash 10% total area)	52000	2.0	80	4	4.0	1.56	123	62.02	471	12						

\* Same plough used for shallow ploughing and conventional ploughing

\*\*\* Estimated value

\*\* Used for stool eradication (2 passes) + two passes for seedbed preparation

# Local Products & Suppliers

AGRICULTURAL AND HAULAGE TRACTORS:				TRACTORS AND HAULAGE TRACTORS:								
Company/Distributor:	Company contact:	Product Name & Type	SA agents information:	POWER CATEGORIES: (2wd + 4wd)					EXTRAS:			
				35-50kW	50-60kW	+75kW	+90kW	+125kW	150kW +	Track option	Precision Ag Systems (GPS)	
Agco	<a href="http://www.agcorp.com">www.agcorp.com</a>	Challenger tractors and equipment	<a href="http://www.challenger-ag.co.za">www.challenger-ag.co.za</a>							x	x	x
Agco	<a href="http://www.agcorp.com">www.agcorp.com</a>	Massey Ferguson Tractors and equipment	<a href="http://www.masseyferguson.com">www.masseyferguson.com</a>	x	x	x	x	x	x	x	x	x
Agco	<a href="http://www.agcorp.com">www.agcorp.com</a>	Valtra tractors and equipment	<a href="http://www.valtrac.co.za">www.valtrac.co.za</a>		x	x	x	x	x	x	x	x
Argo Industrial	<a href="http://www.argosa.co.za">www.argosa.co.za</a>	Landini tractors	<a href="http://www.landini.co.za">www.landini.co.za</a>	x	x	x	x	x	x	x	x	x
Argo Industrial	<a href="http://www.argosa.co.za">www.argosa.co.za</a>	McCormick tractors	<a href="http://www.mccormick-intl.com">www.mccormick-intl.com</a>	x	x	x	x	x	x	x	x	x
Barloworld Agriculture	<a href="http://www.barloworldagriculture.co.za">www.barloworldagriculture.co.za</a>	Claas SA tractors, cane harvesters	<a href="http://www.claas.co.za">www.claas.co.za</a>	x	x	x	x	x	x	x	x	x
Bell Equipment Co	<a href="http://www.bellequipment.com">www.bellequipment.com</a>	Bell tractors, trailers, loaders, cranes and equipment	<a href="http://www.bellequipment.com">www.bellequipment.com</a>							x	x	x
Deere & Co.	<a href="http://www.johndeere.com">www.johndeere.com</a>	John Deere tractors, cane loaders, cane harvesters, implements	<a href="http://www.mascor.co.za">www.mascor.co.za</a>	x	x	x	x	x	x	x	x	x
Desmond Equipment S.A.	<a href="http://www.dezzi.co.za">www.dezzi.co.za</a>	Dezzi tractors, trailers and equipment	<a href="http://www.dezzi.co.za">www.dezzi.co.za</a>		x	x	x	x	x	x	x	x
Eotra	<a href="http://www.eiegroup.co.za">www.eiegroup.co.za</a>	Deutz-Fahr and SAME tractors and implements	<a href="http://www.eiegroup.co.za">www.eiegroup.co.za</a>	x	x	x	x	x	x	x	x	x
Farmtrac	<a href="http://www.farmtracsa.co.za">www.farmtracsa.co.za</a>	Farmtrac tractors	<a href="http://www.farmtracsa.co.za">www.farmtracsa.co.za</a>	x	x	x						
Greenfields	<a href="http://www.greenagri.co.za">www.greenagri.co.za</a>	JCB, Foton, TYM tractors and equipment	<a href="http://www.greenagri.co.za">www.greenagri.co.za</a>	x	x	x	x	x				
Jinma	<a href="http://www.jinma-tractor.com">www.jinma-tractor.com</a>	Jinma Tractors	<a href="http://www.jinma-tractor.com">www.jinma-tractor.com</a>	x	x							
New Holland S.A.	<a href="http://www.nhsa.co.za">www.nhsa.co.za</a>	New Holland tractors, implements and equipment	<a href="http://www.nhsa.co.za">www.nhsa.co.za</a>	x	x	x	x	x	x	x	x	x
Northmec CNH	<a href="http://www.cnh.com">www.cnh.com</a>	CASE IH cane harvesters, tractors, implements and equipment	<a href="http://www.northmec.co.za">www.northmec.co.za</a>	x	x	x	x	x	x	x	x	x
Smith Power Equipment	<a href="http://www.smithpower.co.za">www.smithpower.co.za</a>	Kubota tractors	<a href="http://www.kubot tractor.co.za">www.kubot tractor.co.za</a>	x	x	x	x	x				
Sonalika Tractors	<a href="http://www.sonalika.com">www.sonalika.com</a>	Sonalika tractors	<a href="http://www.sonalika.com">www.sonalika.com</a>	x	x							

CANE HARVESTERS, LOADERS, CRANES AND CANE TRAILERS:				HARVESTERS:			CANE HANDLING EQUIPMENT:		
Company/Distributor:	Company contact:	Product Name & Type	SA agents information:	Mechanical Cutter:	Tractor Mounted:	Chopper Harvester:	Cane Trailers:	Cane Loaders:	Cane Cranes:
				Barloworld Agriculture	<a href="http://www.barloworldagriculture.co.za">www.barloworldagriculture.co.za</a>	Claas SA cane harvesters, tractors, trailers	<a href="http://www.claas.co.za">www.claas.co.za</a>		
Bell Equipment Co	<a href="http://www.bellequipment.com">www.bellequipment.com</a>	Bell tractors, trailers, loaders, cranes and equipment	<a href="http://www.bellequipment.com">www.bellequipment.com</a>				x	x	x
Deere & Co.	<a href="http://www.johndeere.com">www.johndeere.com</a>	John Deere cane harvesters, cane loaders, trailers	<a href="http://www.mascor.co.za">www.mascor.co.za</a>			x	x	x	x
Desmond Equipment S.A.	<a href="http://www.dezzi.co.za">www.dezzi.co.za</a>	Dezzi tractors, trailers and equipment	<a href="http://www.dezzi.co.za">www.dezzi.co.za</a>				x	x	x
ESM	<a href="http://www.esm-tdp.de">www.esm-tdp.de</a>	Cane Thumper (see also Barloworld Agriculture and Northmec)	<a href="http://www.caneharvester.co.za">www.caneharvester.co.za</a>	x					
GC Tillage	<a href="http://www.gctillage.com">www.gctillage.com</a>	C/C Tillage: Civevsa ag implements, cane planters, loaders	<a href="http://www.gctillage.com">www.gctillage.com</a>				x	x	
Hin-Tech manufacturing	<a href="http://www.urus-hintegger.com">www.urus-hintegger.com</a>	Hin-Tech loaders and equipment	<a href="http://www.urus-hintegger.com">www.urus-hintegger.com</a>					x	
Italia Engineering	<a href="mailto:italeng@mweb.co.za">italeng@mweb.co.za</a>	Italia Engineering trailers and equipment	<a href="mailto:italeng@mweb.co.za">italeng@mweb.co.za</a>				x		
Kinsey Engineering	<a href="http://www.kinseyengineering.m.yellowpages.co.za">www.kinseyengineering.m.yellowpages.co.za</a>	Kinsey Engineering trailers and equipment	<a href="http://www.kinseyengineering.m.yellowpages.co.za">www.kinseyengineering.m.yellowpages.co.za</a>				x		
Landmech	<a href="http://www.landmech.co.za">www.landmech.co.za</a>	LandMech equipment, trailers and implements	<a href="http://www.landmech.co.za">www.landmech.co.za</a>				x		
LCM engineering	<a href="http://www.lcmengineering.co.za">www.lcmengineering.co.za</a>	LCM: trailers	<a href="http://www.lcmengineering.co.za">www.lcmengineering.co.za</a>				x		
Maitrarch Equipment	<a href="http://www.maitrarchequipment.com">www.maitrarchequipment.com</a>	Maitrarch cane loaders and equipment	<a href="http://www.maitrarchequipment.com">www.maitrarchequipment.com</a>					x	
Multiservice engineering	<a href="http://www.multiseng.co.za">www.multiseng.co.za</a>	Multiservice engineering: trailers, cranes and equipment	<a href="http://www.multiseng.co.za">www.multiseng.co.za</a>					x	x
Northmec CNH	<a href="http://www.cnh.com">www.cnh.com</a>	CASE IH Austoft cane harvesters and equipment	<a href="http://www.northmec.co.za">www.northmec.co.za</a>	x		x			
Orbach agri	<a href="http://www.orbach.co.za">www.orbach.co.za</a>	Orbach: SSS70 cane harvester	<a href="http://www.orbach.co.za">www.orbach.co.za</a>		x				
Reid's Engineering	<a href="http://www.reidsengineering.co.za">www.reidsengineering.co.za</a>	Reids engineering: Cranes, Trailers, Fire fighting, implements...	<a href="http://www.reidsengineering.co.za">www.reidsengineering.co.za</a>				x		x
Rhino	<a href="http://www.rhinoquip.co.za">www.rhinoquip.co.za</a>	Rhino agricultural equipment	<a href="http://www.rhinoquip.co.za">www.rhinoquip.co.za</a>				x		
Roadhog Trailers	<a href="http://www.roadhogtl.co.za">www.roadhogtl.co.za</a>	Roadhog Trailers: trailers, water carts etc.	<a href="http://www.roadhogtl.co.za">www.roadhogtl.co.za</a>				x		
Roadking Manufacturing & Supply	<a href="http://www.roadking.co.za">www.roadking.co.za</a>	RMS: Trailers, cranes, implements	<a href="http://www.roadking.co.za">www.roadking.co.za</a>				x		x
Rogue steel	<a href="http://www.roquesteel.co.za">www.roquesteel.co.za</a>	Rogue agriculture implements and equipment	<a href="http://www.agriculture.roquesteel.co.za">www.agriculture.roquesteel.co.za</a>				x		
SAFMech	<a href="http://www.safmech.co.za">www.safmech.co.za</a>	SAFMech: Agriculture and Forestry equipment	<a href="http://www.safmech.co.za">www.safmech.co.za</a>				x	x	
Site Fab Engineering		Site Fab Engineering: Equipment fabricators 039 9761729					x		
Southern Ambition		Southern Ambition: Trailer and cane equipment 032 5521819					x		x
Stako Engineering	<a href="http://www.stako.co.za">www.stako.co.za</a>	Stako: Cane trailers, truck bodies and trailers etc.	<a href="http://www.stako.co.za">www.stako.co.za</a>				x		
Unicab	<a href="http://www.sugarcane.co.za">www.sugarcane.co.za</a>	Unicab trailers and equipment	<a href="http://www.sugarcane.co.za">www.sugarcane.co.za</a>				x		
Vicro marketing	<a href="http://www.caneharvester.co.za">www.caneharvester.co.za</a>	Vicro cane harvester	<a href="http://www.caneharvester.co.za">www.caneharvester.co.za</a>		x				

o = discontinued (2nd hand equipment available)

AGRICULTURAL EQUIPMENT, TRAILERS, IMPLEMENTS AND ATTACHMENTS:				IMPLEMENTS AND EQUIPMENT:				
Company/Distributor:	Company contact:	Product Name & Type	SA agents information:	Cane Planters:	Land Preparation:	Fertiliser applicators:	Sprayers:	Other:
				Agco	<a href="http://www.agcorp.com">www.agcorp.com</a>	Massey Ferguson Tractors and equipment	<a href="http://www.masseyferguson.com">www.masseyferguson.com</a>	
Agco	<a href="http://www.agcorp.com">www.agcorp.com</a>	Valtra tractors and equipment	<a href="http://www.valtrac.co.za">www.valtrac.co.za</a>		x	x	x	x
AgriServe (KZN)	<a href="mailto:robin@kznagriserve.com">robin@kznagriserve.com</a>	AgriServe tractors, agricultural machinery and equipment	<a href="mailto:robin@kznagriserve.com">robin@kznagriserve.com</a>		x	x	x	x
Baldan	<a href="http://www.baldanagriculturalimplements.com">www.baldanagriculturalimplements.com</a>	Baldan equipment	Various		x	x		x
Bargam	<a href="http://www.bargam.com">www.bargam.com</a>	Bargam sprayers, spreaders and land preparation	Various		x		x	x
BPI Manufacturing	<a href="http://www.bpiimplemente.co.za">www.bpiimplemente.co.za</a>	BPI agricultural equipment	<a href="http://www.bpiimplemente.co.za">www.bpiimplemente.co.za</a>		x	x	x	x
Deere & Co.	<a href="http://www.johndeere.com">www.johndeere.com</a>	John Deere tractors, cane loaders, cane harvesters, implements	<a href="http://www.mascor.co.za">www.mascor.co.za</a>	x	x	x	x	x
Dicla	<a href="http://www.dicla.com">www.dicla.com</a>	Dicla tractors, implements and agricultural equipment	<a href="http://www.dicla.com">www.dicla.com</a>		x	x	x	x
Eotra	<a href="http://www.eiegroup.co.za">www.eiegroup.co.za</a>	Deutz-Fahr and SAME tractors and implements	<a href="http://www.eiegroup.co.za">www.eiegroup.co.za</a>		x	x	x	x
Falcon equipment	<a href="http://www.falconequipment.co.za">www.falconequipment.co.za</a>	Falcon agricultural equipment	<a href="http://www.falconequipment.co.za">www.falconequipment.co.za</a>		x	x	x	x
Farm Maintenance Services	<a href="mailto:larry@fms.org.za">larry@fms.org.za</a>	Farm Maintenance Services tractors and agricultural equipment	<a href="mailto:larry@fms.org.za">larry@fms.org.za</a>		x	x	x	x
GC Tillage	<a href="http://www.gctillage.com">www.gctillage.com</a>	GC Tillage: Civevsa ag implements, cane planters, loaders	<a href="http://www.gctillage.com">www.gctillage.com</a>		x	x	x	x
Landmech - See RMS below	<a href="http://www.landmech.co.za">www.landmech.co.za</a>	LandMech (see RMS) equipment, trailers and implements	<a href="http://www.landmech.co.za">www.landmech.co.za</a>	x	x	x	x	x
Lemken	<a href="http://www.lemken.com">www.lemken.com</a>	Lemken SA agricultural equipment	<a href="http://www.lemken.com">www.lemken.com</a>		x			
Mnani	<a href="http://www.mnani.co.za">www.mnani.co.za</a>	Mnani agricultural equipment	<a href="http://www.mnani.co.za">www.mnani.co.za</a>		x	x	x	x
Multiservice engineering	<a href="http://www.multiseng.co.za">www.multiseng.co.za</a>	Multiservice engineering: trailers, cranes and equipment	<a href="http://www.multiseng.co.za">www.multiseng.co.za</a>		x			
Nardi Equipment	<a href="http://www.zruppardi.it">www.zruppardi.it</a>	Nardi equipment	Various		x			
New Holland S.A.	<a href="http://www.nhsa.co.za">www.nhsa.co.za</a>	New Holland tractors, implements and equipment	<a href="http://www.nhsa.co.za">www.nhsa.co.za</a>		x	x	x	x
Northmec CNH	<a href="http://www.cnh.com">www.cnh.com</a>	CASE IH Austoft cane harvesters and equipment	<a href="http://www.northmec.co.za">www.northmec.co.za</a>		x	x	x	x
Peake equipment	<a href="http://www.peakeequipment.co.za">www.peakeequipment.co.za</a>	Peake sprayers and equipment	<a href="http://www.peakeequipment.co.za">www.peakeequipment.co.za</a>				x	x
Quantum sprayers	<a href="http://www.quantumsprayers.co.za">www.quantumsprayers.co.za</a>	Quantum mounted and trailed sprayers; fire fighting equipment	<a href="http://www.quantumsprayers.co.za">www.quantumsprayers.co.za</a>				x	x
Radium Engineering	<a href="http://www.radium.co.za">www.radium.co.za</a>	Radium agricultural equipment, implements	<a href="http://www.radium.co.za">www.radium.co.za</a>		x	x	x	x
Reid's Engineering	<a href="http://www.reidsengineering.co.za">www.reidsengineering.co.za</a>	Reids Eng: Trailers, Fire fighting, implements, attachments...	<a href="http://www.reidsengineering.co.za">www.reidsengineering.co.za</a>		x	x	x	x
Rhino	<a href="http://www.rhinoquip.co.za">www.rhinoquip.co.za</a>	Rhino agricultural equipment	<a href="http://www.rhinoquip.co.za">www.rhinoquip.co.za</a>		x			
Roadhog Trailers	<a href="http://www.roadhogtl.co.za">www.roadhogtl.co.za</a>	Roadhog Trailers: trailers, water carts etc.	<a href="http://www.roadhogtl.co.za">www.roadhogtl.co.za</a>					x
Roadking Manufacturing & Supply	<a href="http://www.roadking.co.za">www.roadking.co.za</a>	RMS: Trailers, cranes, implements	<a href="http://www.roadking.co.za">www.roadking.co.za</a>	x	x	x	x	x
Rogue steel	<a href="http://www.roquesteel.co.za">www.roquesteel.co.za</a>	Rogue agriculture implements and equipment	<a href="http://www.agriculture.roquesteel.co.za">www.agriculture.roquesteel.co.za</a>		x		x	x
Rovic and Leers	<a href="http://www.rovicleers.co.za">www.rovicleers.co.za</a>	Rovic and Leers agricultural implements	<a href="http://www.rovicleers.co.za">www.rovicleers.co.za</a>	x	x	x	x	x
SAFMech	<a href="http://www.safmech.co.za">www.safmech.co.za</a>	SAFMech: Agriculture and Forestry equipment	<a href="http://www.safmech.co.za">www.safmech.co.za</a>		x	x	x	x
Sonalika Tractors	<a href="http://www.sonalika.com">www.sonalika.com</a>	Sonalika tractors and implements	<a href="http://www.sonalika.com">www.sonalika.com</a>		x	x	x	x
Southern Ambition		Southern Ambition: Trailer and cane equipment 032 5521819			x			x
Spray-Rig	<a href="http://www.sprayrig.co.za">www.sprayrig.co.za</a>	Spray-Rig agricultural equipment	<a href="http://www.sprayrig.co.za">www.sprayrig.co.za</a>				x	x
Tillmaster	<a href="http://www.tillmaster.co.za">www.tillmaster.co.za</a>	Tillmaster agricultural equipment	<a href="http://www.tillmaster.co.za">www.tillmaster.co.za</a>		x	x		x
Unicab	<a href="http://www.sugarcane.co.za">www.sugarcane.co.za</a>	Unicab trailers and equipment	<a href="http://www.sugarcane.co.za">www.sugarcane.co.za</a>					x



# International Products & Suppliers

Company/Distributor:	Company contact:	Product Name & Type	HARVESTERS:			CANE HANDLING EQUIPMENT:			IMPLEMENTS AND EQUIPMENT:					
			Mechanical Cutter:	Tractor Mounted:	Chopper Harvester:	Cane Trailers:	Cane Loaders:	Cane Cranes:	Cane/spe edling Planters:	Land Preparation:	Fertiliser applicators:	Sprayers:	Other:	
AGCO - CAT, Fendt, Massey Ferguson, Valtra...	<a href="http://www.agcocorp.com">www.agcocorp.com</a>	<b>Santal</b> cane loaders			x			x				x	x	x
Bednar	<a href="http://bednar-machinery.com">bednar-machinery.com</a>	Tillage, land preparation, slashing, cultivation, fertiliser application										x	x	x
BRN	<a href="http://www.brnbrasil.com.br">www.brnbrasil.com.br</a>	<b>BRN</b> planters by CASE IH				x	x	x				x	x	x
Bunmei Noki	<a href="http://www.bunmei.co.jp">www.bunmei.co.jp</a>	<b>Bunmei</b> walk behind mechanical sugarcane cutter	x									x		
Checchi Magli	<a href="http://www.checchiemaqli.com/">http://www.checchiemaqli.com/</a>	Transplanters, lifters by <a href="http://www.rovicleers.co.za">www.rovicleers.co.za</a>										x	x	
Cima	<a href="http://www.cima.it">www.cima.it</a>	Sprayers, <a href="http://www.rovicleers.co.za">www.rovicleers.co.za</a>												x
Civemasa	<a href="http://www.civemasa.com.br">www.civemasa.com.br</a>	planters, implements										x	x	x
Claas	<a href="http://www.claasofamerica.com">www.claasofamerica.com</a>	Tractors, harvesters, balers, forage, hay												x
CNH - CASE IH, NEW HOLLAND	<a href="http://www.cnh.com">www.cnh.com</a>	<b>CASE IH</b> cane harvesters, tractors, implements and equipment			x									
Deccan	<a href="http://www.deccanequipments.com">www.deccanequipments.com</a>	Ploughs, rotorvators, trash shredder, stubble shaver												x
Deere & co.	<a href="http://www.ihndeere.com">www.ihndeere.com</a>	<b>John Deere</b> cane harvesters, tractors, cane loaders, implements			x			x				x	x	x
Doble TT	<a href="http://implementosdobleTT.com.ar">http://implementosdobleTT.com.ar</a>	Cane billett planters, soil preparation, trailers				x						x	x	x
ESM	<a href="http://www.esm-ept.de">www.esm-ept.de</a>	<b>ESM</b> mechanical sugarcane cutter	x											
Field King	<a href="http://www.fieldking.com">www.fieldking.com</a>	Loaders, land preparation						x					x	x
Game Equipment	<a href="http://www.gameeq.com">www.gameeq.com</a>	<b>Game</b> slew and continuous loaders, transporters, billett planters				x	x					x		
Gessner	<a href="http://www.gessner.com.au">www.gessner.com.au</a>	<b>Gessner</b> Planters, land preparation, fertilizer applicators						x				x	x	x
Graham Twyford	<a href="http://www.gtmachinerysales.com.au">www.gtmachinerysales.com.au</a>	<b>GT</b> Transporter units, billett planters				x						x		
GWW	<a href="http://www.globalwinwin.com">www.globalwinwin.com</a>	mechanical sugarcane cutter	x				x							
Hardi	<a href="http://www.hardi-international.com">www.hardi-international.com</a>	sprayers, <a href="http://www.hardi.co.za">www.hardi.co.za</a>												x
Hodge	<a href="http://www.hodge.com.au">www.hodge.com.au</a>	<b>Hodge</b> mechanical sugarcane cutter	x									x	x	x
Hygrotech	<a href="http://www.hygrotech.co.za/">www.hygrotech.co.za/</a>	Mechanical transplanters										x		
Jeanfil	<a href="http://www.jeanfil.com">www.jeanfil.com</a>	trailers, spreaders											x	x
Jacto	<a href="http://www.jacto.com">www.jacto.com</a>	sprayers												x
Kongskilde	<a href="http://www.kongskilde.com">www.kongskilde.com</a>	Soil preparation, cultivation, planting, crop protection, etc...											x	x
Kuhn	<a href="http://www.kuhn.com">www.kuhn.com</a>	Soil preparation, spreaders, crop protection, fertilization etc,											x	x
Lemken	<a href="http://www.lemken.in">www.lemken.in</a>	Land preparation, crop protection equipment											x	x
Mahindra	<a href="http://www.mahindra.com">www.mahindra.com</a>	Small tractors & equipment, cutters, mulchers, shredders, landprep	x	x									x	x
Monosem	<a href="http://www.monosem.com/">http://www.monosem.com/</a>	planters, cultivators, fertilizer applicators											x	x
Motocana	<a href="http://www.motocana.com">www.motocana.com</a>	<b>Motocana</b> loaders, high lift tip trailers, bed formers						x	x					
MQI machinery	<a href="http://www.mqimachinery.com">www.mqimachinery.com</a>	<b>MQI</b> Cane planters						x				x	x	
Santal	<a href="http://www.santal.com.br">www.santal.com.br</a>	See AGCO												
Sheng Qian Industry Co.	<a href="http://www.sqindustry.com">www.sqindustry.com</a>	mechanical sugarcane cutter	x					x						
Simon equipment	<a href="http://www.machines-simon.com">www.machines-simon.com</a>	<b>Simon</b> Sugarcane harvester		x										
Struik	<a href="http://www.struikholland.nl">www.struikholland.nl</a>	land preparation, bed formers,												
Sulky	<a href="http://www.sulky-burel.com">www.sulky-burel.com</a>	Cultivators, drills, spreaders											x	x
TAGRM	<a href="http://www.taqrm.com">www.taqrm.com</a>	Mechanical harvester, slew loader, planters			x							x		
Tatu Marchesan	<a href="http://www.marchesan.com.br">www.marchesan.com.br</a>	Land preparation, spreaders, coverers, other implements						x					x	x
Tesuo Industrial Co	<a href="http://www.tesuo.com">www.tesuo.com</a>	harvester			x									
Valtra equipment	<a href="http://www.valtra.com.br">www.valtra.com.br</a>	<b>Valtra</b> cane harvester BE1035e, loader BE1100, HC tractor, implements			x			x				x	x	x
Walpeco	<a href="http://www.walpeco.com">www.walpeco.com</a>	<b>Walpeco</b> mechanical sugarcane cutter, billett and wholestick planters	x									x		x