

**CENTROSEMA***Centrosema pubescens***'Cardillo' syn Q 252561/CPI 43197**

Application No: 96/192 Accepted: 4 Sep 1996.

Applicant: **The State of Queensland through its Department of Primary Industries and CSIRO Tropical Agriculture**, Brisbane, QLD.

**Description** (Table 6, Figure 52) Plant: perennial stoloniferous/twining herbaceous, tropical legume. Leaf: elliptical/ovate, slightly hairy on lower surface. Flower: papilionaceous, cleistogamous, inflorescence 3-5 flowers in axillary racemes, 19 cm across standard, standard white except for a purple line behind wings, wings white. Persistent taproot and strong adventitious rooting from stolons.

**Origin** Selection: one of the 10 most promising out of 396 accessions of *Centrosema pubescens* grown in south-east QLD; Breeder: RJ Clements, CSIRO, Brisbane, QLD; further selected by D Cooksley, QLD, Department of Primary Industries to cull out flowers with purple standards. Selection criteria: better yield, persistence, winter greenness and adventitious rooting than common centro. Propagation: seed for several generations.

**Comparative Trial** Comparators: two different sources of "common" centro (there is no other cultivar of *C. pubescens*). Location: Samford, QLD, Dec 1995 - Jul 1997. Conditions: plants raised in peat pots and transplanted to weedmat at 3m spacing. Irrigation applied to prevent major moisture stress. Trial design: 30 plants of each line in 6 replicates, with 5 plants of each line per replicate. Measurements: taken from all plants May 1996 - Jul 1997.

**Prior Application and Sales** Nil.

Description: **RM Jones, CSIRO Tropical Agriculture**, Brisbane, QLD

**Table 6 *Centrosema* varieties**

	'Cardillo'	*Common- Source 1	*Common - Source 2
<b>STOLON ROOTING</b> (score 1-least, 5-highest)			
mean	5.9	1.5	1.2
std deviation	3.2	1.7	1.3
LSD/sig	3.6	P≤0.01	P≤0.01
<b>YELLOWING OF TERMINAL RUNNERS (%)</b>			
mean	0.7	87	82
std deviation	3.0	11	13
LSD/sig	7.5	P≤0.01	P≤0.01
<b>LENGTH OF TERMINAL LEAFLET (cm)</b>			
mean	45.5	52.3	52.6
std deviation	4.4	4.7	4.9
LSD/sig	3.8	P≤0.01	P≤0.01
<b>FLOWERS WITH PURPLE COLOUR AT DISTAL END OF WINGS (%)</b>			
mean	0	100	100
<b>WIDTH OF STANDARD (cm)</b>			
mean	18.8	27.5	27.3
std deviation	1.5	1.7	1.3
LSD/sig	1.9	P≤0.01	P≤0.01

**COTTON***Gossypium hirsutum***'DeltaGEM'**

Application No: 96/233 Accepted: 7 Nov 1996.

Applicant: **Deltapine Australia Pty Ltd**, Narrabri, NSW.

**Description** (Table 7, Figure 37) Plant: tall, medium maturing, shape cylindrical, foliage density medium. Leaf: palmate, size medium (129mm x 94mm), pubescence of leaf veins slight, gossypol and nectary glands present. Fruiting branches: above node 7, length medium. Flower: petals cream. Boll: size medium (43mm x 31mm), elliptic. Peduncle length medium (16mm); bract size medium (46mm x 22mm); boll opening medium. Fibre: lint turn-out high (37.6%), length medium (1.14in), strength medium (29.8 g/tex), uniformity index medium (82.1%), micronaire value medium (3.9). Bacterial blight resistant, verticillium and fusarium wilt tolerance moderate.

**Origin** Controlled pollination: 'DP 5690'<sup>Ⓛ</sup> x 'Siokra 14'. Breeder: Mr. Richard Leske, Deltapine Australia, Goondiwindi, QLD. Selection criteria: plant habit, bacterial blight resistance, yield and fibre quality.

**Comparative Trial** Comparators: 'DP 5690'<sup>Ⓛ</sup>, 'Siokra 14'. Location: "Mundine" Goondiwindi, QLD, 1996-1997. Conditions: fully irrigated, commercial herbicide and fertiliser rates applied, 9 insecticide applications. Trial Design: randomised block with 4 replicates. Measurements: morphological measurements from 25 plants per replicate. Lint percentage and fibre quality data from replicated trials in 1995/1996 and 1996/1997.

**Prior Applications and Sales** First sold Australia 1996.

Description: **Richard Leske, Deltapine Australia Pty Ltd.**, Goondiwindi, QLD.

**Table 7 *Gossypium* varieties**

	'DeltaGEM'	*'DP 5690' <sup>Ⓛ</sup>	*'Siokra 14'
<b>PLANT HEIGHT (mm)</b>			
mean	801.47	798.41	747.49
std deviation	113.17	77.36	81.96
LSD/sig	36.18	ns	P≤0.01
<b>NUMBER OF VEGETATIVE NODES</b>			
mean	7.31	6.39	7.20
std deviation	1.49	1.04	1.34
LSD/sig	0.56	P≤0.01	ns
<b>LEAF WIDTH (mm)</b>			
mean	129.45	136.39	153.57
std deviation	10.83	8.98	21.22
LSD/sig	6.25	P≤0.01	P≤0.01
<b>LEAF LENGTH (mm)</b>			
mean	94.20	101.57	131.65
std deviation	7.15	8.18	10.45
LSD/sig	3.59	P≤0.01	P≤0.01
<b>LENGTH TO 1ST FRUITING POSITION (mm)</b>			
mean	99.55	95.87	109.50
std deviation	19.70	24.49	18.52
LSD/sig	9.10	ns	P≤0.01