

PLANT CHARACTERISTICS

Coromup (b) flowers slightly later than Belara. Its early vigour and harvest height are similar Belara and Tanjil (b). Weaker stems make this variety moderately susceptible to lodging in high rainfall areas.

Plant characteristics of Coromup (b).

Variety	Mature Height (Low rainfall)	Harvest Height (Low rainfall)	Lodging Resistance (High rainfall)
--- % Merrit ---			
Coromup (b)	108	108	4
Mandelup (b)	108	108	4
Quilnock (b)	102	102	3
Tanjil (b)	106	106	6
Belara	105	105	4
Kalya	107	109	4
Myallie	109	111	4
Merrit	100	100	7
Merrit	55.6 cm	27.4 cm	

Rating scale:

3 = susceptible	5 = intermediate (a useful level)
4 = moderately susceptible	6 = moderately resistant
	7 = resistant



HERBICIDE TOLERANCE

All currently registered herbicides can be used on Coromup (b) within the label rates. It shows good tolerance to metribuzin - similar to Mandelup (b), better than Tanjil (b) or Quilnock (b).

About the name

Coromup – in Nyoongar it refers to Boronia, a widely distributed native plant throughout the south west. There is also a locality called Coromup west of Gnowangerup.

This variety comes from the Department of Agriculture and Food Western Australia's breeding program

With financial support from:



Scientific support was received from the Department of Fisheries Western Australia and The University of Western Australia

Coromup (b) seed is available through:
Coorow Seeds 08 9952 1088



Coromup (b)

A high protein narrow-leaved lupin for dehulling

(Tested as WALAN2173M)

SUMMARY

- High quality variety for medium and low rainfall zones
- Highest protein content of all lupin varieties
 - 2.4% higher seed protein than Mandelup (b)
 - Protein digestibility excellent for aquaculture rations
- Largest and most uniform seed size of all varieties
- Early maturing, slightly later than Belara
- Similar yield to Tanjil (b)
- Good disease resistance profile, including anthracnose and phomopsis stem blight
- Early vigour and harvest height similar to Belara and Tanjil (b)
- Similar metribuzin tolerance to Mandelup (b)



Release: August 2006

BREEDING

Coromup (b) (tested as WALAN2173M) was bred by former Lupin Breeder Dr Wallace Cowling, and current Lupin Breeder Dr Bevan Buirchell, together with the lupin breeding team at the Department of Agriculture and Food.

Pedigree: 1992 cross (92L339-3-16-1B) between 84A086-73-10 and a line (84S035-48-2) from which Belara was selected.

84A086 = Gungurru/CE2-1-1

84S035 = Yorrel/84A086

Full pedigree: (Gungurru/CE2-1-1)/(Yorrel/(Gungurru/CE2-1-1))

The variety is protected by Plant Breeders Rights and a Crop Improvement Royalty is payable.

YIELD

Coromup (b) produces lower grain yields than Mandelup (b) and Quilnock (b) but similar to Belara and Tanjil (b).

Comparative yields based on CVT trials containing Coromup (b) between 2000 and 2005.

	Lupin Zone							
	1	2	3	4	5	6	7	8
Coromup (b) (no. of trials)	98 (13)	104 (14)	101 (14)	99 (10)	104 (12)	95 (13)	106 (18)	102 (6)
Belara	101 (9)	104 (10)	101 (12)	103 (8)	107 (9)	98 (8)	99 (13)	110 (4)
Kalya	96 (9)	100 (9)	93 (10)	98 (8)	96 (9)	99 (8)	100 (13)	100 (4)
Mandelup (b)	106 (9)	113 (9)	110 (9)	111 (8)	112 (7)	107 (7)	112 (12)	115 (4)
Quilnock (b)	101 (9)	110 (9)	105 (9)	114 (8)	109 (7)	117 (7)	114 (12)	113 (4)
Wonga (b)	98 (7)	104 (7)	96 (7)	98 (6)	99 (6)	100 (7)	101 (7)	101 (3)
Tanjil (b)	100 (10)	100 (9)	100 (14)	100 (19)	100 (9)	100 (8)	100 (13)	100 (4)

WHERE TO GROW COROMUP (b)

- It is not suitable for Lupin Zone 1 where lodging and anthracnose are high risk factors.
- It is unlikely to receive a protein premium in Lupin Zone 8 where protein levels are typically low. Also lodging is a risk in this zone.
- Lupin Zones 2, 3, 5 and 7 appear most suitable for Coromup (b) based on yield, protein and agronomic characteristics.



SEED QUALITY

Coromup (b) has the highest protein content of all varieties grown in Western Australia. Protein content varies from year to year and across zones but Coromup (b) ranks highly in all zones.

The variety has excellent attributes for de-hulling, producing high protein kernel meal for premium feed markets.

Lupin protein content variation across zones (% as received)
Based on 10 years CVT data for all lupin varieties.

Lupin Zone							
1	2	3	4	5	6	7	8
31.1	32.1	32.5	31.2	32.3	31.8	32.2	29.5

DISEASE RESISTANCE

- Phomopsis stem blight resistance is high, similar to Belara and Mandelup (b).
- Moderately susceptible to brown spot similar to Belara.
- Resistant to CMV seed transmission, similar to Tanjil and Wonga (b).
- Moderately resistant to anthracnose, similar to Mandelup, but not as good as Tanjil (b).
- Resistance to aphid colonisation, similar to Kalya & Tanjil (b).

Disease resistance of Coromup (b).

Variety	Brown Spot	Phomopsis Stem	Anthracnose Pod/Seed	Aphid
Coromup (b)	4	7	7	6
Mandelup (b)	4	7	7	6
Quilnock (b)	5	6	3	2
Tanjil (b)	5	6	7	7
Belara	4	7	6	4
Kalya	5	5	4	6
Myallie	6	6	4	3
Merrit	4	6	6	4

Rating scale:

- 3 = susceptible
- 4 = moderately susceptible
- 5 = intermediate (a useful level)
- 6 = moderately resistant
- 7 = resistant

Seed quality of Coromup (b) in comparison to other narrow-leaved lupin varieties as a percentage of Belara.

Variety	Seed Weight	Seed Protein	Seed Oil	Seed Alkaloid
Coromup (b)	106	109	95	126
Mandelup (b)	100	102	94	108
Belara	100	100	100	100
Quilnock (b)	104	106	85	78
Tanjil (b)	94	104	98	119
Kalya	94	105	88	132
Danja	96	102	95	154
Merrit	94	106	92	90
Coromup (b)	166 mg	34.5%	6.1%	0.012%

Results presented on % as received basis.