



New Zealand Plant Breeding Ltd

Courier

- high yielding, semi-leafless maple field pea



Courier is a high yielding, semi-leafless maple field pea cultivar bred by Crop & Food Research. It is the first semi-leafless maple pea cultivar to be released with Plant Variety Rights in New Zealand and exhibits improvements in plant height and lodging resistance over the shorter-strawed cultivar Crown. Courier is resistant to Fusarium wilt Race 1, and has better tolerance to Ascochyta blight than Whero and Crown. Courier is susceptible to powdery mildew.

Key features

- High yielding maple pea cultivar (evaluated in FAR trials as 8554.32 and **Courier**)
- Improved lodging resistance
- Semi-leafless plant type
- Suited to both irrigated and dryland environments
- Resistant to Fusarium wilt Race 1
- Excellent nutritional profile compared to existing New Zealand maple pea cultivars

Characteristics

Courier is a spring-sown, semi-leafless maple field pea cultivar that produces a vigorous medium-tall plant with improved lodging resistance. The flowers of **Courier** are purple.

Excellent grain yields at both irrigated and dryland sites have been reported in FAR Arable Updates where it has been tested as 8554.32 and **Courier**.

Grain of **Courier** has an irregular shape with yellow cotyledons and a brown mottled seed coat with a tan hilum. Grain size is similar to Whero, but larger than Crown.

Relative grain yield (t/ha) of Courier compared with the commercial maple field pea cultivar Crown in regional pea trials funded by FAR in Canterbury during 1996/97 and 1997/98.

Cultivar	Chertsey 1996/97 (irrigated)	Lyndhurst 1997/97 (dryland)	Chertsey 1997/98 (irrigated)	Lyndhurst 1997/98 (dryland)
Courier (CFR 8554.32)	4.73	3.58	6.94	2.9
Crown	4.55	3.33	6.29	2.6

Proximate analysis (%) and trypsin inhibitor content (mgTI/g pea flour) of a selection of field pea cultivars grown in a field trial at Lincoln in 1994/95.

Cultivar	% Protein	% Fat	% Fibre	% Ash	mgTI/g (HCl extraction)
Courier	26.91	1.32	10.13	4.27	0.52
Whero	25.63	1.27	8.36	4.06	0.66
Crown	22.12	1.29	10.81	4.21	1.08
Rex	23.30	1.26	7.05	3.42	0.55

Management

Under most conditions **Courier** exhibits better lodging resistance and harvest-ability than all other New Zealand maple pea varieties.

Courier is best sown from mid-September to late October. The recommended sowing rate is 260 kg/ha. Aim for a plant population of 80/m². **Courier** can compensate well for lower sowing rates by producing 1 to 3 tillers.

Recent FAR research indicates that peas do not respond to fertiliser (beyond maintenance applications prior to sowing). Excess fertiliser applications may promote too much growth which may reduce lodging resistance.

Courier has been exposed to most registered pea herbicides with no apparent problems. Follow the recommendations of Peter Cates Ltd before herbicides are applied.

Courier will produce high yields if water use is monitored and irrigation scheduled. However, excessive irrigation can lead to excess vine growth which may reduce yield, lodging resistance and harvest-ability.



Diseases

Courier is susceptible to powdery mildew so an application of an appropriate systemic fungicide in late December is recommended.

Courier is resistant to Fusarium wilt Race 1. Resistance to downy mildew and Ascochyta blight is similar to Crown therefore **Courier** is rated as moderately susceptible in New Zealand. **Courier** is tolerant of pea top yellows virus but susceptible to pea seed-borne mosaic virus and pea powdery mildew.

Marketing and utilisation

The New Zealand Institute for Crop & Food Research Ltd (as Head Licensee of **Courier**) has appointed New Zealand Plant Breeding Ltd as Seed Production Licencee in New Zealand.

This cultivar was granted Plant Variety Rights in New Zealand on 10 December 1997.

Courier was developed for New Zealand and international pea export markets. Its use is targeted primarily at bird-feed markets rather than for sprouting.

Acknowledgements

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