



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)
<b>Courier (CFR 8554.32)</b>	4.73	3.58	6.94	2.9
<b>Crown</b>	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)
<b>Courier</b>	26.91	1.32	10.13	4.27	0.52
<b>Whero</b>	25.63	1.27	8.36	4.06	0.66
<b>Crown</b>	22.12	1.29	10.81	4.21	1.08
<b>Rex</b>	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/m<sup>2</sup>. **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

Funding from the Foundation for Research, Science and Technology has enabled Crop & Food Research to develop this superior maple pea cultivar for the New Zealand arable industry.

## Contacts

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