



Marrowfat pea '22-5'

Key features

- ▶ *Semi-leafless plant type*
- ▶ *Large grain size and good colour retention*
- ▶ *Good yield potential*
- ▶ *Taller than Midichi and requires careful irrigation management.*

Description

22-5 is a cross between PRL-Midichi and an advanced semi-leafless PRL breeding line. Midichi is most widely used marrowfat pea variety in Japanese processing and is listed on the Japanese food safety programme and is the main variety used in New Zealand. Midichi is a short, early flowering leafed variety with resistance to powdery mildew and good tolerance to grain colour bleaching. 22-5 was developed specifically to create a variety with the processing characteristics of Midichi, and higher yield in a semi-leafless background.

Management

22-5 is taller and more vigorous than Midichi with similar grain size and colour characteristics. Like Midichi it is also resistant to pea powdery mildew and a little more tolerant to downy mildew than Midichi. It has no more resistance to ascochyta than existing varieties and requires careful management to ensure maximum grain size is achieved and disease remains off the pods. A fungicide at note 4-7 is highly recommended to reduce ascochyta loads later in the season. Marrowfats in general require more intensive management than feed pea varieties.

Flowering usually commences 5-7 days later than Midichi and harvest in around 1-2 weeks later. 22-5 does stand a little better than Midichi but overwatering can lead to excessive crop growth and lodging.

Ideally to maximize colour 22-5 should be swathed at around 20% moisture content and harvested as soon as possible.

Sowing rate

Aim for a plant population of 100 plants/m². Sowing rate needs to be adjusted for grain size, expected emergence and germination percentage. Ask your agent for advice on the sowing rate for your seed line.

Sowing rate (kg/ha) = $\frac{\text{Target plant population} \times \text{Thousand Grain Weight (g)} \times 100}{\% \text{ Germination} \times \% \text{ Emergence}}$

For spring sowing expect an emergence of 85% and use a target population of 100 plants/m².

Sowing depth and drilling speed

Sowing depth for marrowfats should be a little deeper than for small green or process peas. Drive slowly when planting to compensate for a large grain size. Pea Industry Development Group trials show that slower driving results in better establishment and less seed damage

Grain yield

In NZ trials 22-5 has produced yield around 10% higher than Midichi over three successive seasons with a grain size averaging 390g/1000 seeds. In NZ the yield potential in a managed irrigated situation with an early fungicide is around 4-5 mt/ha.

Disclaimer:

While every care has been taken to ensure the accuracy and reliability of the information presented, Plant Research Ltd take no responsibility for the consequences that may arise from the acceptance of these recommendations as many other factors may come into effect. Always seek professional advice for critical work or where you are unsure of any stated data or information. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, without the prior written permission of the copyright holders.

© Plant Research (NZ) Ltd 2010.