

# Tyrian

- A purple wheat with a 10 -15% yield advantage over Amethyst from an autumn sowing
- Niche market wheat with appreciably higher value than other wheat types
- A true winter wheat cultivar requiring autumn or winter sowing



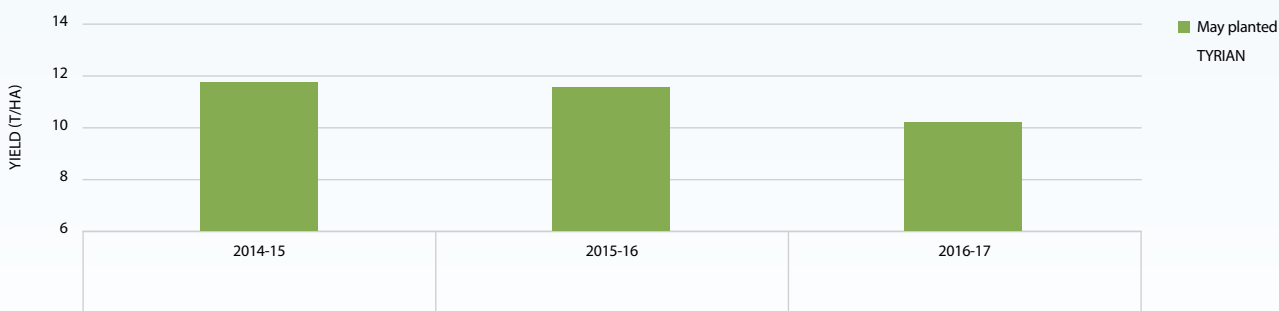
## Description

TYRIAN is a high yielding purple winter wheat, bred in New Zealand by Plant & Food and under commercial release by PGG Wrightson Grain (PGW Grain). TYRIAN has higher yield potential than Amethyst and better disease resistance. TYRIAN is accepted by the flour mills, with good colour and other grain attributes for use in kibbling. Purple wheat is a niche market for which contracts are strongly advised.

## Yield

TYRIAN has a slow development that best suits April plantings. It has a low vernalisation requirement and can be planted as late as July. TYRIAN typically yields 10-15% over Amethyst. Results from PGW trials indicate that yield gains fall off quickly if sowing is delayed past May.

## PGW PURPLE WHEAT TRIALS AT LINCOLN 2014-2017



New Zealand Flour Millers Association, Plant and Food Research and PGG Wrightson Grain collaborative trials.

PGW TYRIAN Grain Autumn grain quality (2 year mean)	Canterbury
Test weight (kg/hl)	72
Screenings (%)	1.4
Kernel weight (1000 seed weight)	46
Protein content (%) (N% X 5.7)	11.6
Falling number (sec)	326

TYRIAN should be given priority at harvest to preserve the colour intensity and to protect falling number.

## Time of drilling

TYRIAN should be drilled in April in order to achieve maximum yield potential. It is a true winter cultivar so requires drilling in the autumn or winter in order to vernalise. It performs best planted before mid May and must not be planted later than the last week of July.

### Speed of development

TYRIAN is slow to develop compared with Amethyst. When planted between May and July TYRIAN will head out approximately one week later than Amethyst. If planted later than this the difference will rapidly widen until the vernalisation requirement is not met at all in TYRIAN and it does not head out until it is too late (after mid December).

Month planted	Typical heading dates for TYRIAN in Canterbury
May	Mid November
July	Early - Mid December

TYRIAN is an intermediate to late maturing cultivar at harvest.

### Seed rate and tillering characteristics

TYRIAN tillers very well and this can compromise kernel weights (TGW), so care needs to be taken with plant populations to protect grain quality. Target plant populations should be within the standard PGW Grain wheat guidelines (pg 5).

### Soil type, rotation and geography

TYRIAN is suitable for all New Zealand winter wheat growing regions where good grain quality, especially high thousand grain weight, can be achieved. It is not recommended as a second year cereal option. As well as the usual risks from take-all, contamination from non-purple wheat volunteers could compromise end-user quality.

### Disease resistance

TYRIAN has a good general disease resistance profile, but is moderately susceptible to *Septoria*. Considering this disease profile fungicide programmes should be tailored to target *Septoria* early, especially at T1 and T2 timings. Please contact your local PGW Representative for site specific recommendations.

### Disease resistance results:

Disease	PGW disease nursery ratings (9 highly resistant, 1 highly susceptible)
Stripe rust	7
Leaf rust	7
<i>Septoria</i> leaf blotch	5
Powdery mildew	(9)
<i>Fusarium</i> head blight	n/a
BYDV	n/a

() = Limited data available.

n/a = no data available.

### Straw strength and height

TYRIAN is a medium to tall cultivar with moderate standing power. In most situations, this variety will require a robust plant growth regulator (PGR) programme to prevent lodging. Use of PGRs is generally recommended, with the actual programme determined by a combination of sowing date, seed rate, nitrogen use, crop thickness and yield potential. Please contact your local PGW Representative for site specific recommendations.