

# SY Transformer

- Highest yielding commercially available spring barley in FAR CPT trials
- Suited to all sowing times and conditions in both the spring and autumn
- Good all-round disease resistance profile especially to mildew and net blotch
- Large grain, average test weights and very low screenings



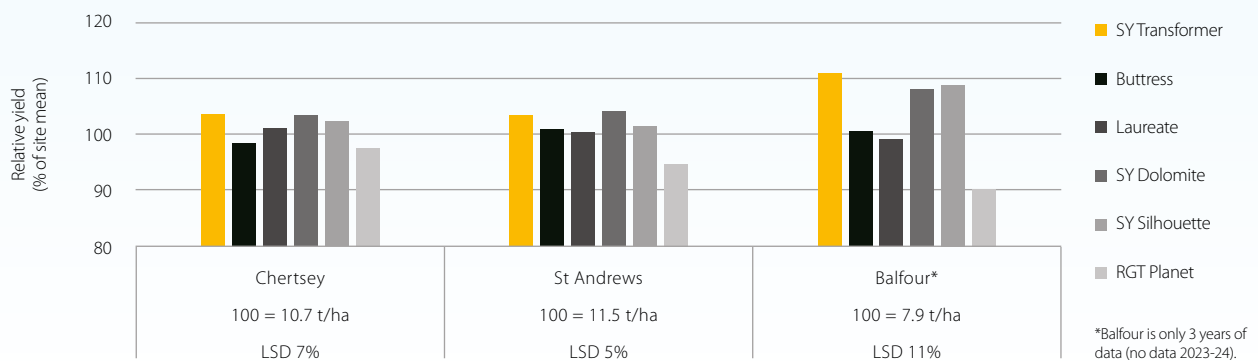
## Description

From the proven Syngenta spring barley breeding programme, SY TRANSFORMER has been developed in New Zealand in conjunction with Cropmark Seeds Ltd as head licensee and PGG Wrightson Grain (PGW Grain). SY TRANSFORMER is a spring barley with very high yield potential that is suitable for feed. Malting and distilling end uses are unknown and currently being investigated. It has an intermediate maturity and can be planted late or under dryland but has high yield potential with irrigation and appropriate inputs.

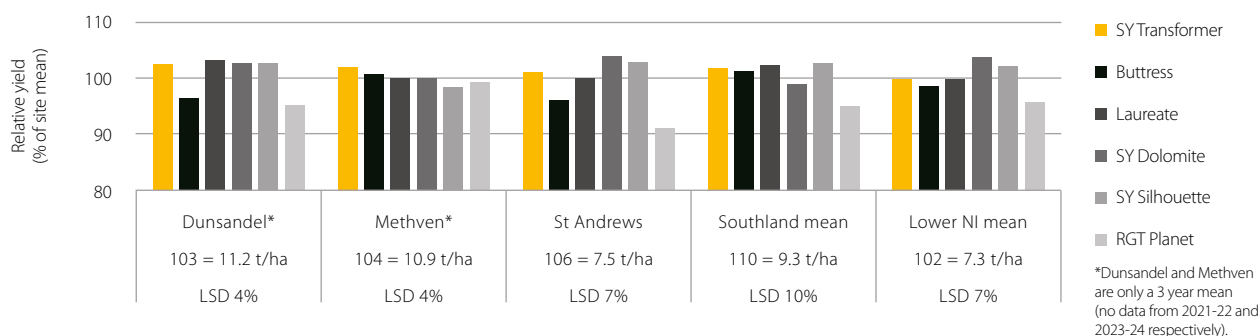
## Yield

SY TRANSFORMER has high yield potential under all grain growing environments but has excelled under 'normal' conditions where it yields more than other barleys. It is one of the highest yielding varieties in both the FAR autumn and spring sown trials when looking at the 4 year means, showing consistency across years and environments.

### FAR (CPT) Autumn Sown Trials (4 Year Mean)



### FAR (CPT) Spring Sown Trials (4 Year Mean)



<b>CPT SY TRANSFORMER grain quality (4 year mean)</b>	<b>Canterbury (Autumn)</b>	<b>Southland (Autumn)</b>	<b>Canterbury (Spring)</b>	<b>Southland (Spring)</b>	<b>Lower NI (Spring)</b>
Kernel weight (1000 seed weight)	49	50	50	55	59
Test Weight (kg/hl)	62	60	59	62	66
Protein content (%) (N% x 5.7)	11.4	12.2	10.8	12.9	10.2
Screenings (%)	4.9	5.3	5	2.8	0.6

### Time of drilling

SY TRANSFORMER has proven itself in autumn and spring conditions so has a wide sowing window from May right through to late October and beyond. Growing conditions and yield potential always dictate PGR requirements, and even though SY TRANSFORMER has a stiff straw it will benefit from a moderate PGR programme especially in the autumn and in very high growth environments.

### Speed of development

<b>Month planted</b>	<b>Typical heading dates for SY TRANSFORMER in Canterbury</b>
May	Late October
September	Late November

SY TRANSFORMER has an intermediate development rate for harvest maturity.

### Seed rate and tillering characteristics

SY TRANSFORMER is a medium to high tillering variety, and target plant populations should be within the standard PGW Grain barley seed rate guidelines (pg 5). Work done by Cropmark Seeds Ltd has shown yields are maximised by targeting 175-200 plants/m<sup>2</sup> in the autumn.

### Soil type, rotation and geography

SY TRANSFORMER can be planted on all soil types where barley is already grown and can be grown as a first or second-year cereal. As a second-year cereal, barley is generally more take-all tolerant than wheat, however, yield will be lower than a first year barley crop.

### Disease resistance

SY TRANSFORMER has intermediate resistance to scald and leaf rust, and is mostly resistant to net blotch and powdery mildew. Considering this disease profile, SY TRANSFORMER will need a moderate fungicide programme to focus on scald, leaf rust and *Ramularia* from autumn sowings, and leaf rust from late spring sowings. In the 2022/23 PGW Grain fungicide trial, SY TRANSFORMER produced a moderate untreated yield and fungicide responses of 2.4–5.6 t/ha and 2.1–2.8 t/ha from an autumn and spring sowing, respectively. Please contact your local PGW Representative for site specific recommendations.

### Disease resistance results:

<b>Disease</b>	<b>PGW Grain disease nursery ratings (9 highly resistant, 1 highly susceptible)</b>
Scald	6
Net blotch	9
Leaf rust	5
Powdery mildew	8

### Straw strength and height

SY TRANSFORMER is a medium height cultivar with moderate to stiff straw. Autumn sowings will require a robust plant growth regulator (PGR) investment, especially under irrigation. In spring, this cultivar will still require a moderate to high PGR programme to prevent brackling and maintain high yields. The actual programme is determined by a combination of local conditions, management and yield potential. As with any cultivar, do not apply PGR if the crop is under any form of stress. Please contact your local PGW Representative for site specific recommendations.