

Surge

- A new very high yielding winter barley
- Medium height, stiff strawed
- Excellent disease resistance
- Earlier harvest benefits



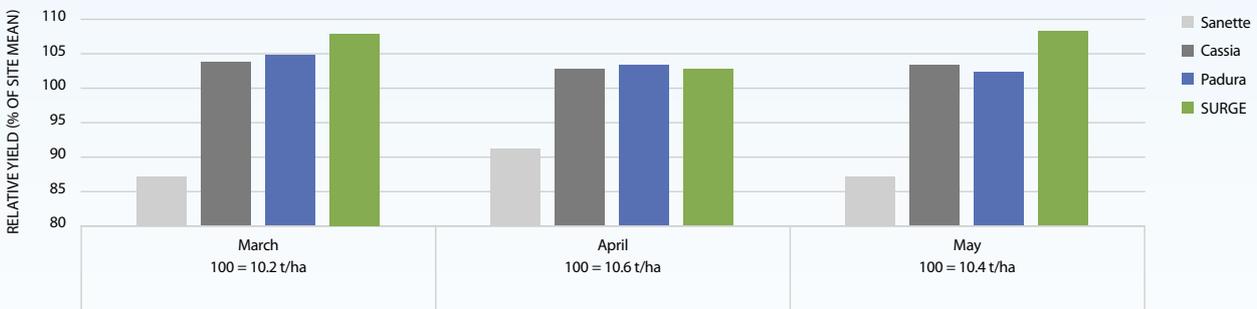
Description

SURGE is a true winter barley bred in the UK by Syngenta. It requires vernalisation and time for tiller development therefore is only suitable for autumn sowings. It performs best from earlier sowings in late March and April to take advantage of its high tillering habit and disease resistance especially to scald.

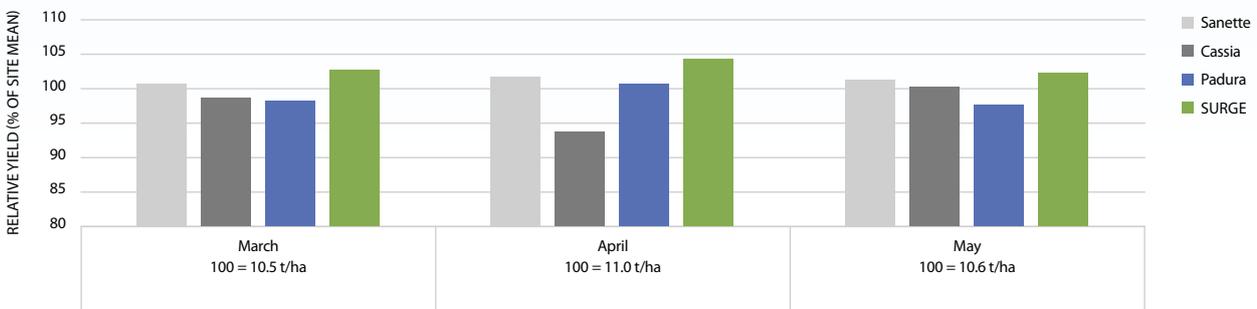
Yield

In FAR trials over the 2015 and 2016 seasons SURGE was the overall highest yielding winter barley on the market.

FAR CHERTSEY IRRIGATED TIME OF SOWING TRIALS (2 YEAR MEAN)



FAR TEMUKA IRRIGATED TIME OF SOWING TRIALS (2 YEAR MEAN)



SURGE grain quality (7 trial mean)	Canterbury
Test weight (kg/hl)	64
Screenings (%)	2.7
Kernel weight (1000 seed weight)	51

SURGE produces a medium size grain of good test weight with low to moderate screenings.

Time of drilling

The optimum drilling time for SURGE is late March to late April. There may be some reduction in yield in early May, more so on dryland, lighter country and higher altitude areas. From early May sowings yields will tend to decrease but will be similar to spring barley planted at this time. However its superior disease resistance makes it an alternative to spring barley for early May planting. By mid-May the grower should switch to a spring barley like RGT Planet, Sanette or Tavern. On drier country where summer moisture stress is expected this cut off can come in late April or the first week of May.

Speed of development

Month planted	Typical heading dates for SURGE in Canterbury
Late March	Late October
Mid April	Early November
Early May	Mid November

SURGE is a cultivar with early to mid-maturity at harvest.

Seed rate and tillering characteristics

SURGE winter barley is able to produce a large number of tillers. It will produce around 25 tillers per plant by the end of tillering but reduce to 7-10 per plant at harvest. In comparison to other varieties it will produce more tillers than Cassia and Padura, but less than Sanette or Tavern. Based on limited trial data the optimal sowing rates are as follows.

Month planted	Establishment rates for SURGE (plants/m²)
March to Early April	120 – 150
Mid April	150
Late April to Mid May	175

Soil type, rotation and geography

SURGE 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

SURGE has an excellent disease resistance profile and is mostly resistant to scald, net blotch and powdery mildew. It is moderately resistant to leaf rust. Some disease may be present in late winter on older leaves but this will disappear with new spring growth. Considering this disease profile fungicide programmes should be tailored for the control of Ramularia. Please contact your PGW Representative for site specific recommendations.

Disease resistance results:

Disease	PGW disease nursery ratings (9 highly resistant, 1 highly susceptible)
Scald	9
Net blotch	7
Leaf rust	6
Powdery mildew	8

Straw strength and height

SURGE is a medium to tall cultivar with a height similar to Tavern. It has good straw strength and stand-ability, however it can brackle on ripening. Due to its high yield potential it will require a moderate PGR programme focussing on early season stem strength and late season height reduction to prevent lodging or brackling. 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.