

Graham

- *High yielding winter feed wheat*
- *High yield potential under a wide sowing window – Early April until late June*
- *Good disease resistance profile but responds well to fungicides*
- *Heavy grain and high test weights, plus low sprouting risk*



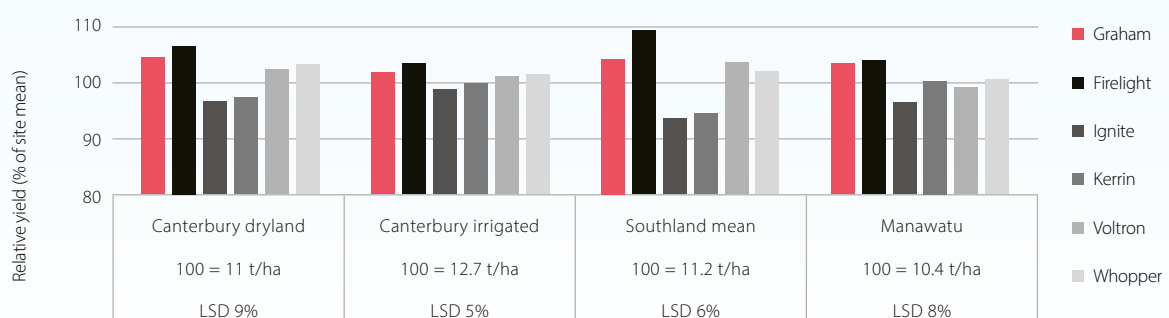
Description

GRAHAM winter wheat is a high yielding feed wheat cultivar bred by Syngenta in France and developed in New Zealand in conjunction with Cropmark Seeds Ltd as head licensee and PGG Wrightson Grain (PGW Grain). In the past four seasons in FAR CPT trials, GRAHAM has produced consistently high yields across all environments. It has a good disease package and produces an intermediate hard/soft grain with high kernel weights, good test weights and high falling numbers.

Yield

GRAHAM has consistently produced high yields across a wide range of sites, with adjusted 4-year mean yields of 100% -113% across all South Island regions. In the lower North Island it has been a leading cultivar in the past three seasons with the exception of last year.

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



CPT GRAHAM grain quality (4 year mean)	Lower North Island	Canterbury	Southland
Kernel weight (1000 seed weight)	47	49	54
Test Weight (kg/hl)	71	75	76
Protein content (%) (N% x 5.7)	10.7	10.4	8.7
Screenings (%)	0.9	0.7	0.9
Falling number (sec)	-	346	314

Time of drilling

Due to its strong vernalisation requirement the full yield potential of GRAHAM is most likely to be achieved from an early drilling window of early April to late June.

Speed of development

Month planted	Typical heading dates for GRAHAM in Canterbury
Late March	Early November
Late May	Mid – Late November
Late June	Early – Mid December

From autumn plantings GRAHAM is an early-medium maturing cultivar. However, it should not be planted after the end of June in areas with mild winters as its high vernalisation requirement may result in excessively delayed heading.

Seed rate and tillering characteristics

GRAHAM has a high tillering capacity and a broad U-shaped tillering habit making it excellent at compensating for poor establishment and suited to lighter seeding rates, especially from earlier plantings. Target plant populations should be at the low to medium end of the range for autumn cereals.

Soil type, rotation and geography

GRAHAM has shown that it can perform well under a wide range of different soil types and environments in Canterbury, Southland and the lower North Island.

Disease resistance

GRAHAM has good resistance to most cereal diseases in New Zealand, especially stripe rust and *Fusarium* head blight but monitor for tan spot and leaf rust. Considering this disease profile and previous work conducted by Cropmark Seeds Ltd, a moderate to high fungicide programme is recommended. In PGW Grain agronomy trials (2019/20-2021/22), GRAHAM has produced one of the lowest untreated yields and high fungicide responses of 2.7-6.2 t/ha. 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	9
Leaf rust	5
Septoria leaf blotch	7
Powdery mildew	7
<i>Fusarium</i> head blight	6

Straw strength and height

GRAHAM is a medium height cultivar with stiff straw. Use of plant growth regulators (PGRs) is generally recommended, with the actual programme determined by a combination of sowing date, seed rate, nitrogen use, crop thickness and yield potential. As with any cultivar, do not apply if the crop is under any form of stress. Please contact your local PGW Representative for site specific recommendations.