

Grout

Feed Barley

VARIETY SUMMARY

- High yielding quick maturing variety.
- Significantly improved levels of disease resistance.
- Improved grain size.
- Highly adapted to a wide range of growing conditions and environments.



BREEDING

Grout (formerly Cameo/Arupo 31-04) was bred by the Queensland Department of Primary Industries and Fisheries (QDPI & F) as part of the Northern Region Barley Improvement program. It is a cross between Cameo and Arupo.



AREA OF ADAPTATION

Grout demonstrates good adaptation to grain growing regions from central NSW through to central Queensland.

In lower rainfall or shorter season environments it shows superior yield and grain quality. In higher yielding environments it competes well against higher yield potential, later maturing, feed and malting varieties particularly on late planting or double cropping situation.



MATURITY

A quick maturity variety, Grout is a day or two quicker than Kaputar on an early planting (early May to mid June) and one to two days later than Kaputar to flower on later planting. However Grout maintains green leaf for much longer than Kaputar and is slower to dry down. Grout will mature up to two weeks earlier than Grimmatt and Tallon from a mid May to mid June plant.



PLANT CHARACTERISTICS

Grout is a vigorous seedling with a high tillering ability and erect growth habit. Plant type is semi tall with moderate levels of standability better than Grimmatt and similar to Mackay. It exhibits an ability to maintain green leaf during grain fill ensuring good grain size and indicating a level of drought tolerance.



GRAIN QUALITY CHARACTERISTICS

Grout exhibits excellent grain size, much improved over current varieties such as Tallon, Binalong, Mackay and Gaidner. It maintains this grain size advantage in both high and low yielding conditions. Resulting in low levels of screenings which is an important grain quality standard for both the malting and feed industries.



YIELD

Average percent of trial mean for Grout and other commercial varieties in 29 trials in northern NSW and QLD from 2004 – 2006, conducted by the Northern Region Barley Development Program.

Variety	Eastern sites	Western sites	CQ	Average all sites
Binalong	104.2	102.6	94.0	102.4
Fitzroy	107.5	101.7	100.5	104.9
Fleet	95.8	103.0	108.7	99.5
Gaidner	97.9	99.3	84.7	96.4
Grimmett	93.3	87.0	89.4	91.0
Grout	97.9	110.9	122.9	104.9
Mackay	101.6	98.4	99.3	100.4
Tallon	89.6	87.2	90.2	89.0
Skiff	104.8	111.2	100.8	106.0
No of Trials	17 trials	8 trials	4 trials	29 trials
Average Yield (t/ha)	3.44	2.35	2.84	3.06

 **DISEASE RESISTANCE**

Grout has improved levels of resistance to most diseases encountered in the northern grain growing regions, particularly powdery mildew and net form of net blotch.

Variety	Leaf Rust	Stem Rust	Net Blotch		Spot Blotch	Powdery Mildew	Crown Rot	Common Root Rot	Covered Smut
			Net Form	Spot Form					
Grout	S	MS-S	R	MS	S	R	MS	MS	S
Fitzroy	R	MS	R	MS	MS-S	S	S	MR	VS
Grimmett	S	MS-S	S	S	S	S	MS	MR	VS
Kaputar	S	MS-S	R	S	S	R	VS	MS	S
Tallon	S	MS-S	S	S	S	R	S	MR	S
Gairdner	S	MS-S	R	S	S	S	VS	MR	S
Schooner	S	MS-S	R	MS-MR	S	S	S	VS	R
Binalong	S	S	VS	S	S	R	S	MR	VS
Mackay	MS	MS-S	MR	S	MS-S	MR	VS	MR	S

Disease terms: R – Resistant, MR – Moderately Resistant, MS – Moderately Susceptible, S – Susceptible, VS – Very Susceptible

 **AGRONOMIC GUIDELINES**

A quick maturing variety which shows a significant yield advantage in shorter winter growing season environments of western Northern NSW, Western Queensland and Central Queensland. Due to Grout's large grain size, care should be taken in calculating planting rates to ensure establishment of 1,000,000 plants per hectare in order to achieve maximum yield potential.

Up to 2 weeks quicker to flower than Gairdner or Tallon, Grout is not suited to early planting in eastern areas. However it provides a good alternative as a quicker maturing variety for main season or late planting in these areas where it can out yield later maturing varieties. This makes it an ideal variety for double cropping into sorghum or cotton in these areas.

 **PLANT BREEDER RIGHTS AND ROYALTIES**

Grout is protected by Plant Breeder Rights, any unauthorised commercial propagation or any sale, conditioning, export, import or stocking of propagating material of this variety is an infringement under the Plant Breeder's Rights Act, 1994.

Growers are allowed to retain seed from production of this variety for their own use as seed only.

An End Point Royalty of \$2.20 per tonne (GST inclusive), which includes breeder royalties, applies to this variety.

ACKNOWLEDGMENTS

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Queensland Government
Department of
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Grains Research & Development Corporation



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