Seednet

Factsheet

Version 2005

Chara

MILLING WHEAT

VARIETY SUMMARY

- Hard white grained APH classified wheat (SNSW)
- AH classification in SA & Vic
- High yielding, broadly adapted wheat
- Mid season maturity
- Moderate tolerance to acidic soils
- CNN resistant / intolerant

BREEDING

Chara was bred by Agriculture Victoria for release by Agriculture Victoria Services in 1999.

Pedigree: Chara (VI341R) has the pedigree; BD225/CD87 (=Beulah sib//Pavon'S'/Condor).

AREA OF ADAPTATION

Chara is broadly adapted to the medium to high rainfall areas of southern and central New South Wales, Victoria and South Australia. Chara has also performed well in parts of Western Australia.

SOIL TYPE

Chara has exhibited moderate tolerance to acid soils, but is intolerant to high levels of soil boron.

DISEASE AND PEST RESISTANCE

Table 1. Plant characteristics and disease reactions of

Variety	Rust Resistance			CCN		RLN P.neglectus		RLN (P.thornei)		Septoria tritici	Yellow Leaf Spot	Flag Smut	Crown Rot	Blackpoint
	Stem	Stripe	Leaf	Res	Tol	Res	Tol	Res	Tol					
Chara	**MS**	**MS**	**MR**	**R**	**I**	**MS**	**MT**	**MR**	**MT**	**MR/MS**	**MS**	**MR**	**S**	**MS**
Cunningham	R	MS-S	MR-MS	-	-	-	-	-	MI/MT	S	MS	R	S/VS	MS/MR
Diamondbird	MR	MS	R	S	I	MS	MI	-	-	MR	S	R	-	-
Janz	R	MR-MS	MR-MS	S	I	S/MS	MI	S	MI	MS	S	MR	S/VS	S
Sunvale	R	R-MR	R-MR	-	-	-	-	-	VT	MS	VS	-	MS	MR

Plant and Disease Terms: R- Resistant, MR - Moderately Resistant, MS - Moderately Susceptible, S - Susceptible, VS - Very Susceptible, VT - Very Tolerant, T - Tolerant, MT - Moderately Tolerant, MI - Moderately Intolerant, I - Intolerant, VI - Very Intolerant
H- High, M - Medium, L - Low, VL - Very Late, L - Late, M - Medium, E - Early, VE - Very Early

Data source: DNRE, SAFCEP

MATURITY

Chara is a main season spring wheat of semi-dwarf habit, which comes into head three days later than Janz. NSW agriculture recommends sowing from the last week in April to late May/early June on the plains and from early-mid May to early-mid June on the slopes.

PLANT CHARACTERISTICS

Chara has a very attractive dark green colour with erect leaves. The variety has a moderate to short coleoptile, similar to that of Meering and Silverstar, and has poor - moderate early vigour. Chara has good resistance to lodging.

GRAIN QUALITY

Chara is a hard grained variety with greater dough strength and dough extensibility than Meering. Extensive testing indicates that Chara is a balanced variety with good milling, baking and noodle making properties. Flour water absorption is moderate and similar to Meering at equivalent proteins.

Chara is considered suitable for Australian Prime Hard (APH) classification in southern NSW. Chara will receive the maximum classification of AH in Victoria and South Australia and will be received as APW in Western Australia until further quality data has been obtained.

Planting Productivity

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YIELD

Tables 2a and 2b. Grain yield 1996-2002 in NSW as a % of Janz (number of experiments in brackets), and 1996-2002 yield data in Victoria as a % of Meering (number of site years in brackets).

Variety	Victorian long term (1996-2002) yield as a % of Meering							NSW long term (1996-2002) yield data as a % of Janz	
	Mallee	S.Mallee N. Wimm	Wimmera Central	North East	North West	South	Irrigation	South East NSW	South West NSW
Chara	**101 (64)**	**101 (20)**	**97 (18)**	**105 (25)**	**103 (19)**	**99 (1)**	**101 (11)**	**102 (79)**	**102 (62)**
Diamondbird	99 (38)	100 (13)	95 (15)	104 (20)	102 (16)	95 (3)	95 (10)	102 (94)	100 (74)
Janz	103 (64)	102 (20)	100 (22)	101 (25)	100 (19)	98 (1)	98 (15)	100 (94)	100 (74)
Babbler	95 (11)	96 (3)	96 (4)	102 (4)	98 (6)	-	93 (4)	101 (74)	100 (61)

Data Source: VIC DPI *Data Source: NSW Agriculture*

AGRONOMIC GUIDELINES

Sowing

- Sowing highly viable seed uniformly into a firm seedbed free of weeds, clods and trash will help increase yields. In general, sowing depth is recommended at <7.5cm, however a shallower depth may be required if conditions are wet and cold. Seed sown into soil treated with a pre-emergence herbicide must be kept below the layer of herbicide.
- Optimum rates vary widely across regions, and range from 40-70kg/ha in the lower rainfall areas to 50-110 kg/ha in the higher rainfall or irrigated areas. Aim to achieve plant densities of 150 - 200 plants/ m2 in the higher rainfall zones or densities of 80-150 plants/ m2 in lower rainfall areas.
- Seed treatments should be applied to the seed prior to sowing, for the control of smuts and other diseases. As Chara has a relatively short coleoptile, seed treatments which shorten coleoptile length should be avoided.
- Due to the variety's seed size we recommend using the following formula to correctly determine seeding rate. Seed counts are supplied with newly purchased seed.

1000 Seed Weight (grams)	x	Target Plant Population	÷	100	÷	Establishment % x Germination % .....

= Your Seeding Rate.....kg/ha

Grazing

- Good phosphorus (P) and nitrogen (N) nutrition is critical for maximum grain yield and protein accumulation. Fertiliser applications of both these elements are often required to address deficiencies in the majority of Australian soils.

Weed Control

- Control in the early growth stages is critical for success. A wide range of pre and post-emergent herbicides are available. In preliminary trials, Chara has shown an increased sensitivity to post emergent applications of the herbicide Eclipse® which has been associated with leaf yellowing and a reduction in plant height. The effect of this on yield is currently unknown. Caution is suggested on the choice of herbicides until further data is collected. All pre-emergent herbicides which are associated with shortening of the seedling coleoptile should be avoided when planting Chara.

PLANT BREEDER RIGHTS AND ROYALTIES

Chara 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 $1.10 per tonne (GST inclusive), which includes breeder royalties, applies to this variety.

ACKNOWLEDGMENTS

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GRDC Grains Research & Development Corporation

For more information call **Seednet** on **1300 799 246**

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