

Yitpi[®]

MILLING WHEAT

VARIETY SUMMARY

- Frame replacement
- Hard, white grained wheat
- Classified AH in SA & Victoria
- Broad adaptation to most soil types and rainfall regions
- Early-Mid season maturity
- Moderate tolerance to Boron Toxic soils
- Rust and CCN resistance
- Premium Choice Variety in South Australia and Victoria (\$5/tonne grain premium)

BREEDING

Pedigree: Yitpi, which was previously known as 59/1, has the pedigree of (Chamlein*8156)*(Mengavi*Site Corros) (Chamlein*8156)*Hron)*(Mengavi*Siete Cerros) *Fame /Yitpi.

AREA OF ADAPTATION

Yitpi is best adapted to the low to medium rainfall areas of SA and Victoria and is particularly well adapted to the Mallee environment. Yitpi has also shown a good adaptation through the low-medium rainfall areas of Western Australia.

DISEASE AND PEST RESISTANCE

Table 1. Plant characteristics and disease reactions of Yitpi in comparison to other varieties. Yitpi is susceptible to crown rot and common root rot.

Variety	Rust Resistance			CCN		RLN P.neglectus		Septoria	Yellow	Boron	Relative	Crown	Blackpoint
	Stem	Stripe	Leaf	Res	Tol	Res	Tol	Tritici	Leaf Spot	Tolerance	Maturity	Rot	
Frame	MR	MR/MS	MS/S	MR	T/MT	S/MS	MT	S/MS	S	MT	M	S	S
Janz	R	MR/MS	MS	S	I	S/MS	MI	MS	S	I	E-M	MS/S	S
Mitre	R	MS/S	MS	R	MI	S	-	S/MS	S	MI	E-M	S	S/VS
Yitpi	MS/S	MR/MS	MS	MR	MT	MR/MS	MT	MS	S/VS	MT	M	S	S

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

SOIL TYPE

Yitpi is adapted to a wide range of soil types and is moderately tolerant to boron toxic soils.

MATURITY

Yitpi is a mid-maturing wheat of semi-dwarf habit, which flowers slightly later than Frame.

PLANT CHARACTERISTICS

Yitpi is a white, fully awned, semi dwarf variety, with a spring growth habit. Yitpi has good early vigour and develops to a medium plant height, which is similar to Machete and 2.5 cm shorter than Frame. Yitpi has a medium - long coleoptile, and has moderate resistance to lodging.

GRAIN QUALITY

Yitpi has a large grain size, with a greater test weight and plumpness than Frame or Machete, and these characteristics assists in the production of bright flour with good extraction levels. Yitpi is a moderately hard grained variety, which is acceptable for delivery into the Australian Hard (AH) classification in both South Australia and Victoria and western Australia. It will be received elsewhere as APW.

Yitpi has overall flour and dough quality characteristics that are very similar to Janz, and it's balanced dough properties make it suitable for pan, flat bread and yellow alkaline noodle production.

YIELD

Table 2. Grain yield across site years 1999-2004 in Vic as a % of Meering, (number of site years in brackets), and South Australian predicted yield (1996-2002) by Agricultural district as a % of Frame.

Variety	Victorian long term (1999-2004) yield as a % of Meering (DPI Vic)					South Australian long term yield (1996-2002) as a % of Frame					
	Mallee	S.Mallee N. Wimm	Wimmera	North Central	North East	Mid North	South East	Lower Ep	Murray Mallee	Upper EP	Yorke Pen
Annuello	97	98	99	101	100	101 (4)	99 (4)	99 (3)	99 (4)	99 (8)	100 (3)
Frame	96	95	99	100	100	100 (27)	100 (22)	100 (21)	100 (40)	100 (54)	100 (20)
Janz	96	96	98	100	99	99 (27)	96 (22)	96 (21)	97 (40)	95 (54)	98 (20)
Mitre	98	99	100	100	100	97 (8)	97 (7)	96 (6)	95 (12)	95 (16)	98 (6)
Yitpi	105	104	101	100	99	103 (22)	103 (22)	102 (21)	103 (40)	104 (54)	101 (20)

Data Source: NSW Agric, CSIRO, DNRE

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 60 -100 kg/ha. Lower rates should be used for the lower rainfall areas. Aim to achieve plant densities of 150 - 200 plants/ m2. Lower rainfall zones (250-350 mm) require lower (120 – 150 plants/ m2) plant densities.
- Seed treatments should be applied to the seed prior to sowing, for the control of smuts and other diseases.
- 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

Weed Control

- Control in the early growth stages is critical for success. A wide range of pre and post-emergent herbicides are available. In South Australian trials, Yitpi has shown an increased sensitivity to Glean®, Logran® and Bromoxynil MCPA herbicides. Several other popular herbicides have also been found to have a narrow safety margin when applied to Yitpi, so caution is suggested.

PLANT BREEDER RIGHTS AND ROYALTIES

Yitpi 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

Yitpi was developed by Tony Rathjen, the WAITE Institute Wheat Breeding team and breeding collaborators from SARDI and other institutions, with assistance from growers through the GRDC.



Grains Research & Development Corporation

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