

**Table 58 *Triticum* varieties**

	'Mira'	'Chara'	*'Condor'
FLAG LEAF LENGTH: at ear emergence (LSD at P≤0.01 = 23.35mm)			
mean	236.6b	187.07a	247.95b
std deviation	26.99	24.12	34.13
DAYS TO EAR EMERGENCE (LSD at P≤0.01 = 2.46mm)			
mean	103.1a	110.4b	112.2b
std deviation	1.12	1.37	1.28
MATURE HEIGHT: including stem, ear & awns (LSD at P≤0.01 = 33.4mm)			
mean	935.35b	909.97b	867.75a
std deviation	43.42	33.07	41.05
AWN LENGTH: at tip of primary ear (LSD at P≤0.01 = 6.28mm)			
mean	63.45c	49.11a	57.09b
std deviation	6.51	6.72	6.19
EAR: attitude at maturity			
	semi erect	semi prostrate erect	
LOWER GLUME: from mid third of ear			
shoulder shape	elevated	elevated	sloping
shoulder width	narrow	medium	wide
beak length	medium	medium - long	medium
internal hairs	medium	strong	strong
GRAIN: from mid third of ear			
shape	oval - truncated	ovate - elongated	oval
brush hair	short	medium	long
brush end	blunt	medium	medium
FLAG LEAF			
length	medium	short	medium
attitude	recurved	erect	recurved

**Note:** Mean values followed by the same letter are not significantly different at P≤0.01 according to Duncan's Multiple Range Test.

### 'Petrie'

Application No: 1999/326 Accepted: 9 Dec 1999.

Applicant: **The State of Queensland through its Department of Primary Industries**, Brisbane, QLD and **Grains Research and Development Corporation**, Barton, ACT.

**Characteristics** (Table 59, Figure 49) Plant: spring wheat, habit semi-erect to intermediate during tillering, height medium (mean 92cm), maturity medium. Stem: pith thin to medium. Leaf: flag leaf recurved to strongly recurved, flag leaf ligule anthocyanin absent or very weak to weak, flag leaf sheath glaucosity medium. Ear: density medium to dense (node length 4.23mm), length medium (mean 99mm), shape in profile parallel, colour white, glaucosity medium, awns present and medium (mean 64mm). Floret: lower glume beak length short (mean 3.5mm) lower glume shoulder narrow. Grain: white and hard.

**Origin and Breeding** Controlled pollination: seed parent 'Vasco' x pollen parent 'Batavia' in a planned breeding program in 1988. The selected F<sub>5</sub> line designated as QT7634, grown in 1994, comprised the progeny of a single F<sub>4</sub> plant. Five years of selection and/or evaluation, including field performance testing, milling, baking quality and disease resistance evaluation, and removal of off-types from QT7634 have occurred since 1994. QT7634 was renamed 'Petrie' in 1999. 'Petrie' was developed as a typically intermediate maturing winter-sown wheat well adapted to the northern wheat-growing region of Australia. Selection criteria: high yield, good agronomic characteristics and high disease resistance, desirable export quality. Propagation: seed produced by self-pollination through at least two generations. Breeders: P M Banks and P S Brennan, Department of Primary Industries, Toowoomba, QLD.

**Choice of Comparators** The seed parent 'Vasco' is a released slow-maturing variety, which has become outclassed. The male parent 'Batavia' is a current slow-maturing variety with good agronomic performance in its agroecological range, and good export milling and baking quality characteristics. 'Sunvale'<sup>(b)</sup> was selected as the other comparator, as 'Petrie' is believed to have a similar yield to 'Sunvale'<sup>(b)</sup>, and a maturity between 'Sunvale'<sup>(b)</sup> and 'Batavia'. 'Petrie' is expected to have a similar agroecological range to 'Batavia' and 'Sunvale'<sup>(b)</sup>.

**Comparative Trial** Comparator(s): 'Vasco', 'Batavia' and 'Sunvale'<sup>(b)</sup>. Location: Wellcamp Farm, Wellcamp, Jondaryan shire, QLD, Jul – Nov 1999. Conditions: plants were raised in well fertilised, irrigated soil in open beds. Trial design: three-row plots of approximately 200 plants each variety, with two different seed sources (representing different generations) of 'Petrie', arranged in a randomised block with five replications. Measurements: taken from 5 specimens selected at random from each plot, except for height, which was measured for the plot overall. Variation in height was measured from 10 plants from each of two replication and two generations.

### Prior Applications and Sales Nil.

Description: **Tony Done**, Leslie Research Centre, Department of Primary Industries, Toowoomba, QLD.

**Table 59 *Triticum* varieties**

	'Petrie'	*'Vasco'	*'Batavia'	*'Sunvale' <sup>(b)</sup>
GROWTH HABIT				
	semi erect to intermediate	semi-erect	intermediate to semi-prostrate	semi-prostrate
AURICLE ANTHOCYANIN				
	absent or very weak to weak	absent or very weak	strong	absent or very weak

EAR NODE LENGTH (mean of six central nodes of ear), (mm)				
mean	4.2	4.0	5.0	4.6
std deviation	0.24	0.19	0.18	0.19
LSD/sig	0.14	P≤0.01	P≤0.01	P≤0.01

EAR LENGTH (excluding awns), (mm)				
mean	99	95	113	94
std deviation	5.2	4.0	4.6	4.0
LSD/sig	3.3	P≤0.01	P≤0.01	P≤0.01

AWN LENGTH (at ear tip), (mm)				
mean	64	64	55	52
std deviation	4.9	4.3	3.7	4.3
LSD/sig	3.2	ns	P≤0.01	P≤0.01

GLUME BEAK LENGTH (mm)				
mean	3.5	7.0	3.2	11.0
std deviation	0.7	1.8	0.6	1.7
LSD/sig	0.79	P≤0.01	ns	P≤0.01

### ‘Wylah’

Application No: 1999/163 Accepted: 18 Nov 1999.

Applicant: **Department of Agriculture for and on behalf of the State of New South Wales, Orange, NSW and Grains Research and Development Corporation, Barton, ACT.**

**Characteristics** (Table 60, Figure 50) Plant: growth habit intermediate, height medium. Time of ear emergence: medium. Flag leaf: anthocyanin colouration of auricles medium, glaucosity medium. Ear: glaucosity medium, shape tapering, density lax to medium, colour white, long awns present. Straw: pith thin. Apical rachis: segment hairiness of convex surface absent or very weak. Lower glume: shoulder width narrow to medium, shoulder shape elevated, beak length medium, beak shape slightly curved. Lowest lemma: beak shape straight. Grain: colour white. Seasonal type: winter wheat.

**Origin and Breeding** Controlled pollination: bi-parental cross was made in 1984 between seed parent M3458 and pollen parent ‘Osprey’ in a planned breeding program. Both parents were developed by NSW Agriculture. The seed parent was a non-commercial breeding line, which was never released and the pollen parent is a commercial variety characterised by similar seasonal type, growth habit and grain quality classification. F<sub>1</sub> seed was grown over summer of 1984-85. One hundred and forty seven single heads were selected from F<sub>2</sub> population in 1985. These were bulked and sown as selection rows in F<sub>3</sub> in 1987. Pedigree selection for height, straw strength, disease resistance and maturity was conducted from F<sub>3</sub> to F<sub>5</sub> generations. Five hundred and twenty six single head selections from the F<sub>5</sub> rows were sown in the F<sub>6</sub>. Sixty-three of these were harvested as a bulk for further evaluation. Unreplicated experiments were grown to establish yield potential, quality and disease resistance. Selection criteria: high yield, disease resistance, grain quality and growth habit. Propagation: by seed. Breeder: NSW, Agriculture.

**Choice of comparators** The pollen parent ‘Osprey’ was included in the comparative trial because it is a variety of common knowledge with similar seasonal type, growth habit and grain quality classification. ‘Rosella’ and ‘Sunbrook’<sup>(b)</sup> were also included, as these are commonly grown similar winter type varieties. ‘Lawson’ and ‘Patterson’ were excluded, as these are red grained varieties. ‘Whistler’ was not considered as it is classified as ASW quality grade. ‘Sunsoft 98’ was excluded for its soft grain classification.

**Comparative Trial Comparators:** ‘Osprey’, ‘Rosella’ and ‘Sunbrook’<sup>(b)</sup>. Location: trial conducted at Temora Agricultural Research and Advisory Station, Temora, NSW, winter-spring 1999. Conditions: sown into red clay soils on good moisture at 40kg/ha seeding rate with 100kg/ha of MAP. Trial design: randomised blocks 10m x 1.42m in 2 replicates. Measurements: 10 specimens per replicate randomly selected from 1,750 plants per plot.

### Prior Applications and Sales

No prior applications. First sold in Australia in July 1999.

Description: **Paul Breust**, NSW Agriculture, Temora, NSW.

**Table 60 *Triticum* varieties**

	‘Wylah’	*‘Osprey’	*‘Rosella’	*‘Sunbrook’ <sup>(b)</sup>
<b>PLANT HEIGHT (cm)</b>				
mean	90.10	94.10	93.90	109.10
std deviation	3.02	3.92	4.76	2.97
LSD/sig	11.31	ns	ns	P≤0.01
<b>EAR LENGTH (mm)</b>				
mean	98.00	96.15	103.40	120.50
std deviation	7.84	5.99	7.98	7.52
LSD/sig	13.77	ns	ns	P≤0.01
<b>GROWTH HABIT</b>				
	inter-mediate	erect	erect	semi erect
<b>FLAG LEAF ANTHOCYANIN COLOURATION OF AURICLES</b>				
	medium	strong	absent to very weak	absent
<b>EAR EMERGENCE</b>				
	medium	medium	late	very late
<b>FLAG LEAF GLAUCOSITY</b>				
	medium	medium to strong	strong	very strong
<b>EAR GLAUCOSITY</b>				
	strong	weak to medium	medium	strong
<b>EAR DENSITY</b>				
	lax-medium	medium to dense	medium	lax