

FLAG LEAF GLAUCOSITY			
medium- strong	medium	medium	medium
EAR GLAUCOSITY			
medium- strong	medium	medium	medium
EAR DENSITY			
medium to dense	medium to dense	medium to dense	lax-medium
AWNS OR SCURS AT TIP OF EAR			
long – medium	long – medium	medium – long	long – medium
LOWER GLUME SHOULDER WIDTH			
medium	narrow- medium	narrow- medium	narrow
LOWER GLUME SHOULDER SHAPE			
strongly elevated	strongly elevated	slightly sloping	elevated
LOWER GLUME BEAK LENGTH			
long	long	short	long
LOWER GLUME BEAK SHAPE			
straight	straight	straight	slight curve
LOWER GLUME EXTENT OF EXTERNAL HAIRS			
weak – medium	medium	weak	weak

### 'Strzelecki'

Application No: 1999/327 Accepted: 3 Mar 2000.

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

**Characteristics** (Table 48, Figure 52) Plant: spring wheat, habit semi-erect to intermediate during tillering, height medium, maturity medium. Stem: pith thin. Leaf: flag leaf strongly recurved, flag leaf ligule anthocyanin strong, flag leaf sheath glaucosity medium. Ear: density medium, length medium, shape in profile parallel, colour white, glaucosity weak to medium, awns present and medium. Floret: lower glume beak length short. Grain: white and hard. Disease resistance: resistance to yellow spot (*Pyrenophora tritici-repentis*).

**Origin and Breeding** Controlled pollination: seed (non-recurrent) parent 'Vicam' x 4\* pollen (recurrent) parent 'Batavia' in a planned breeding program with the final backcross in 1991. The selected BC<sub>3</sub>F<sub>4</sub> line designated as QT7709, grown in 1995, comprised the progeny of a single BC<sub>2</sub>F<sub>3</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 QT7709 have occurred since 1995. QT7709 was renamed 'Strzelecki' in 2000. 'Strzelecki' was developed as a typically slow 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 with particular reference to yellow spot resistance, and desirable export quality. Propagation: seed produced by self-pollination through at least two generations. Breeder: P M Banks and R G Rees, Department of Primary Industries, Toowoomba, QLD.

**Choice of Comparators** The parents, 'Vicam' and 'Batavia' were chosen as comparators as these are the most similar varieties of common knowledge.

**Comparative Trial** Location: Wellcamp Farm, Wellcamp, Jondaryan shire, QLD, Jul – Nov 1999 and Jul – Nov 2000. 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 'Strzelecki', arranged in a randomised block with 5 (1999) or 10 (2000) replications. Metric measurements: taken from 5 specimens selected at random from each of five plots in the 2000 trial.

**Prior Applications and Sales** Nil.

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

**Table 48 *Triticum* varieties**

	'Strzelecki'	*'Vicam'	*'Batavia'
AURICLE ANTHOCYANIN (30/9/1999)			
	strong	absent or very weak	
strong			
GROWTH STAGE (30/9/1999, 3/10/2000)			
	50, 53	65, >69	50, 56
PLANT HEIGHT (cm)			
mean	76	48	80
std deviation	5.3	2.9	2.3
LSD/sig	4.0	P≤0.01	ns
EAR INTERNODE LENGTH – mean of six central internodes of ear (mm)			
mean	4.4	4.1	4.8
std deviation	0.23	0.28	0.26
LSD/sig	0.22	P≤0.01	P≤0.01
EAR LENGTH -excluding awns (mm)			
mean	101	84	109
std deviation	4.4	6.8	6.9
LSD/sig	5.7	P≤0.01	P≤0.01
EAR MATURITY COLOUR			
	white	coloured	white
LOWER GLUME BEAK LENGTH (mm)			
mean	4	13	4
std deviation	0.6	3.6	0.8
LSD/sig	1.5	P≤0.01	ns
YELLOW SPOT RESISTANCE (seedling test)			
	moderately resistant	resistant	susceptible