

2017 GUIDE TO GRAIN CHARACTERS

◆ **VARIETY GROUPS** - Admixture between groups can be identified using morphological characters.

2 ROW, LONG HAIRE RACHILLA, ILNS ABSENT OR RARELY PRESENT 1 – 2 PER GRAIN, GLABRUM, CLASPING LODICULES										
California	Explorer	Fairing	Flagon	Florentine	KWS Infinity	KWS Irina	KWS Sassy			
Maresi	Ovation	Scholar	Surge	SW Catriona	Talisman	Waggon				
Page 2										
2 ROW, LONG HAIRE RACHILLA, PILOSUM, CLASPING LODICULES			2 ROW, LONG HAIRE RACHILLA, ILNS PRESENT 3 – > 10 PER GRAIN, GLABRUM, CLASPING LODICULES							
Cavalier	KWS Cassia	KWS Glacier	Cassata	Craft	KWS Orwell	KWS Tower	Optic	Pearl	Retriever	SY Venture
Page 3			Page 3							
2 ROW, LONG HAIRE RACHILLA, FRONTAL/LATERAL LODICULES			6 ROW, LONG HAIRE RACHILLA, ILNS PRESENT 5 – > 10 PER GRAIN, (Median Grain Only)							
Golden Promise			Bazooka	Belfry		Verity		Volume		
Page 4			Page 4							
2 ROW, SHORT HAIRE RACHILLA, ILNS ABSENT OR RARELY PRESENT 1 – 2 PER GRAIN, CLASPING LODICULES, GLABRUM										
Belgravia	Brioni	Chronicle	Concerto	Hacker	Kelim		Laureate			
LG Opera	Octavia	Odyssey	Olympus	Propino	RGT Planet		Sienna			
Page 5										
2 ROW, SHORT HAIRE RACHILLA, ILNS PRESENT 5 – > 10 PER GRAIN, CLASPING LODICULES, GLABRUM										
Westminster										
Page 6										

2017 GUIDE TO GRAIN CHARACTERS

2 ROW, LONG HAired RACHILLA, ILNS ABSENT OR RARELY PRESENT 1 – 2 PER GRAIN, GLABRUM, CLASPING LODICULES								
Variety	Aleurone Colour	Rachilla Length	Ventral Crease Width	Wrinkling	Bevel	VC Pit	Retained Anthocyanin	Other Features
California	White	M – S	M	Medium	Medium	Weak to medium	Absent	OLNS moderate
Explorer	White	L	W	Fine	Medium	Absent to very weak	No data available	Absent to very sparse
Fairing	White	M	M	Coarse	Medium	Absent to very weak	Medium	OLNS moderate
Flagon	White	M	M – N	Fine	Medium	Absent	Absent	Rachilla tip hairs sparse
Florentine	White	M	M	Fine	Medium	Weak	Weak to medium	OLNS numerous
KWS Infinity	White	M	M – N	Fine	Medium	Medium	Absent	OLNS numerous
KWS Irina	White	M – L	M	Medium	Medium	Weak	Moderate	OLNS moderate
KWS Sassy	White	M	N - M	Coarse	Shallow	Medium	Weak	OLNS moderate
Maresi	White	M – L	M	Medium	Shallow	Absent to very weak	Absent to very weak	Rachilla tip hairs very short. OLNS absent.
Ovation	White	M	W	Medium	Medium	Absent to very weak	Weak	OLNS moderate
Scholar	White	M	M	Fine	Shallow	Medium	Weak to medium	Rachilla tip hairs short. OLNS sparse
Surge	Weakly blue	M	M	Medium	Medium	Weak	Absent to very weak	OLNS numerous
SW Catriona	White	M	M	Fine	Medium to shallow	Absent	Absent	OLNS absent to very sparse
Talisman	White	M	M	Coarse	Medium	Medium	Moderate to strong	OLNS numerous
Waggon	White	M – L	M – N	Fine	Medium to shallow	Medium	Medium	OLNS sparse

ILNS – Inner Lateral Nerve Spicules OLNS - Outer Lateral Nerve Spicules VC - Ventral Crease M - Medium S - Short L - Long.

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2 ROW, LONG HAired RACHILLA, PILOSUM, CLASPING LODICULES									
Variety	Aleurone Colour	Rachilla Length	Ventral Crease Width	ILNS	Wrinkling	Bevel	VC Pit	Retained Anthocyanin	Other Features
Cavalier	Strongly blue	S – M	M	Abs to pres 1- 2/grain	Coarse	Medium	Weak	Weak	OLNS numerous
KWS Cassia	Strongly blue	S	M	Abs to pres 1- 2/grain	Fine	Medium	Absent	Absent	OLNS numerous
KWS Glacier	Strongly blue	S	M – W	Abs to pres 1- 2/grain	Fine	Medium	Weak	Absent	OLNS numerous

2 ROW, LONG HAired RACHILLA, ILNS PRESENT 3 – > 10 PER GRAIN, GLABRUM, CLASPING LODICULES									
Variety	Aleurone Colour	Rachilla Length	Ventral Crease Width	ILNS	Wrinkling	Bevel	VC Pit	Retained Anthocyanin	Other Features
Pearl	Strongly blue	S – M	N – M	5 – 10 per grain	Medium	Medium to deep	Weak	Absent	OLNS numerous
Cassata	White	M	M	> 10 per grain	Fine	Medium	Absent	Medium	OLNS numerous
Craft	White	S – M	W	> 10 per grain	Coarse	Medium	Weak to medium	Strong	OLNS numerous
KWS Orwell	White	S	M	3 – 6 per grain	Medium	Medium	Medium to strong	Absent	OLNS numerous
KWS Tower	White	M	M	3 – 6 per grain	Medium	Shallow	Weak	Absent	OLNS numerous
Optic	White	M – L	M	5 – > 10 per grain	Coarse	Shallow	Medium	Weak to medium	OLNS moderate. Plumpish grain
Retriever	White	S	M	> 10 per grain	Coarse	Medium	Medium	Strong	OLNS numerous
SY Venture	White	S	M	> 10 per grain	Fine	Medium	Absent	Strong	OLNS numerous

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2 ROW, LONG HAired RACHILLA, FRONTAL/LATERAL LODICULES								
Variety	Aleurone Colour	Rachilla Length	Ventral Crease Width	Wrinkling	Base Type	VC Pit	Retained Anthocyanin	Other Features
Golden Promise	White	M	M – N	N/A	Plain	Absent	M	Small grain

6 ROW, LONG HAired RACHILLA, ILNS PRESENT 5 – > 10 PER GRAIN, (Median Grain Only)									
Variety	Ventral Crease Hairs	Aleurone Colour	Rachilla Length	Ventral Crease Width	Wrinkling	Bevel	VC Pit	Retained Anthocyanin	Other Features
Bazooka	Present	Blue	S - M	M	Medium	Shallow	Absent to very weak	Absent to very weak	Hybrid. OLNS numerous
Belfry	Present	Blue	M	N – M	Medium	Shallow	Absent	Absent	Hybrid. OLNS numerous
Verity	Absent	White	S	N - M	Medium	Shallow	Absent	Absent	OLNS numerous
Volume	Present	Mixed	M – S	W	Coarse	Medium	Weak	Weak	Hybrid. OLNS moderate

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2 ROW, SHORT HAIRE RACHILLA, ILNS ABSENT OR RARELY PRESENT 1 – 2 PER GRAIN, CLASPING LODICULES, GLABRUM								
Variety	Aleurone Colour	Rachilla Length	Ventral Crease Width	Wrinkling	Bevel	VC Pit	Retained Anthocyanin	Other Features
Concerto	Strongly blue*	M	M	Fine	Deep	Medium	Absent	OLNS sparse
Belgravia	White	M – L	M	Coarse	Deep	Medium	Weak	OLNS sparse
Brioni	White	M – L	M	Medium	Shallow	Absent	Moderate to strong	OLNS moderate
Chronicle	White	M – L	M	Coarse	Shallow	Absent to very weak	Moderate to weak	OLNS sparse
Hacker	White	M – L	N – M	Medium to coarse	Shallow	Absent to very weak	Weak to medium	OLNS sparse
Kelim	White	M – L	M – W	Medium	Shallow	Absent	Weak	OLNS moderate
Laureate	White	M – L	N – M	Coarse	Medium	Medium	Weak to medium	OLNS sparse to moderate
LG Opera	White	M – L	M – N	Medium	Shallow	Weak	Weak to medium	OLNS absent to very sparse
Octavia	White	S	M – N	Coarse	Medium	Weak to medium	Weak	OLNS absent to sparse
Odyssey	White	M – L	M	Coarse	Medium	Weak	Weak	OLNS moderate
Olympus	White	L – M	N – M	Fine	Medium	Medium	Weak	OLNS sparse
Propino	White	M	W	Coarse	Deep	Medium	Absent	OLNS sparse
RGT Planet	White	M	M	Medium	Medium	Weak	Medium to strong	OLNS sparse
Sienna	White	M	M	Medium	Medium	Medium	Absent	OLNS sparse

*Harvest year 2015 seed showing as weakly blue. ILNS – Inner Lateral Nerve Spicules OLNS - Outer Lateral Nerve Spicules VC - Ventral Crease M - Medium S - Short L - Long.

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2 ROW, SHORT HAired RACHILLA, ILNS PRESENT 5 – 10 PER GRAIN, CLASPING LODICULES, GLABRUM									
Variety	Aleurone Colour	Rachilla Length	Ventral Crease Width	ILNS	Wrinkling	Bevel	VC Pit	Retained Anthocyanin	Other Features
Westminster	White	L – M	M – W	> 10 per grain	Coarse	Deep	Weak	Absent	OLNS sparse to moderate

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