

2016 GEM Raleigh, NC Breeding Cross Observations

Inbred x Inbred

Pedigree	Silk	Anthesis	EHT	PHT	Disease Rep1	Disease Rep2	Aspect Rep1	Aspect Rep2	Cross again?	Notes
DK F118/89291	73	72	130	284	7	7	4	4	M	Big, high ears; Root, stalk lodged
PHP38/89291	73	72	129	285	7	8	4	4	Y	Open husks, high ear placement
CML105/LH193	73	73	110	251	4.5	6.5	4	4	M	Some foliar disease, stalk rot susceptibility
CML105/LH218	77	76	119	260	6.5	7.5	4	4	M	Big, high ears
CML105/NS701	77	78	135	284	5	7.5	5	5		
CML105/PHT10	74	75	126	269	7	7.5	3	4	M	
CML105/PHW65	75	75	111	258	7	7.5	2	3	M	
DK 6F629/CML287	75	76	133	290	8	7	4	5	M	Stalk rot susceptible
DK NL001/CML287	72	72	151	295	7	7	5	5		Plant health problems
LH193/CML287	77	77	126	294	8	7.5	4	4	Y	Some stalk rot susceptibility
LH197/CML287	80	77	129	304	8	7	4	4	M	
LH202/CML287	75	74	130	311	8	8	4	4	M	
LH204/CML287	80	78	124	285	8	8	4	-	Y	
PHP38/CML287	77	77	136	294	7.5	8	4	4	Y	
CML312/DK 6F629	74	73	129	293	7.5	7.5	2	4	M	
CML312/DK NL001	74	74	131	295	8	8	5	5		Plant health problems
LH193/CML312	78	77	109	273	7	7	1.5	1.5		
CML312/LH197	77	75	125	286	7	7.5	4	4		Some stalk rot susceptibility
CML312/LH202	77	75	105	291	6.5	7.5	3	-		
CML312/LH204	78	76	115	288	8	8	2	2	Y	
CML312/PHP38	75	75	120	279	8	8	2	4	Y	
CML313/DK MM402A	81	79	123	310	8	8	4	4		
CML313/LH185	75	75	119	293	7.5	8	2	4		
PHKE6/CML313	77	77	128	288	7	7.5	4	4	M	
PHN37/CML313	75	75	125	289	8	7.5	4	4	M	
PHN46/CML313	79	78	133	296	7	8	4	4	M	
PHN73/CML313	77	76	120	296	7.5	7.5	4	4	M	
CML340/PHEG9	79	79	145	328	8	8	4	4	M	Very high ear placement
DK MM402A/CML343	77	77	103	283	7	7.5	2	2	M	
LH193/CML343	78	77	110	256	7.5	8.5	2	2		
PHP38/CML343	76	75	109	268	7	8	1	1.5		
DK 6F629/CML373	73	73	123	270	7	8	5	5		
DK F118/CML373	79	78	123	278	6.5	7.5	4	4	M	
CML373/DK NL001	72	72	118	260	7	7.5	5	5		Plant health problems
CML373/LH193	74	74	90	243	7	8	1	1.5		Some stalk rot susceptibility
CML373/LH195	75	75	100	243	8	7.5	1	1		
CML373/LH197	74	73	106	256	7	7	1.5	3		Some stalk rot susceptibility

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CML373/LH198	74	74	115	280	7	7	2	4		
CML373/LH202	75	74	94	248	6.5	8	2	-		
CML373/LH204	73	72	95	241	7	7.5	2	1		
PHP38/CML373	76	75	105	255	8	8	1	1		
CML375/DK HBA1	74	74	100	253	8	8.5	1.5	1		
CML375/DK MM402A	73	73	95	248	7	8	2	1.5		
CML375/LH185	69	70	94	248	7	8	1.5	3		Plant health problems
CML375/LH210	73	73	118	253	7	8	4	5	M	
CML375/PHKE6	69	69	104	239	7	7.5	2	1.5		
CML375/PHN37	67	68	98	249	7	8	1.5	5		
CML375/PHN46	71	71	108	253	7	7.5	2	2		
CML375/PHN73	69	70	113	253	8	8	4	3	M	
DK HBA1/CML395	77	77	138	300	8	8.5	4	4	Y	Very high ear placement
DK MM402A/CML395	77	77	154	320	6.5	7.5	5	5		Very high ear placement
PHKE6/CML395	75	75	119	274	5	7	5	5		High ear placement, disease susceptible
PHN37/CML395	73	73	143	308	5.5	7	4	5	M	Very high ear placement, disease susceptible
CML395/PHN46	76	76	151	299	6	7	4	5	M	Very high ear placement, disease susceptible
PHN73/CML395	72	72	129	299	6.5	7	4	5	M	
CML423/LH218	74	73	108	260	8	8	4	-	M	
PHP38/CML423	69	69	104	243	7	7.5	2	1		
LH218/CML438	77	76	114	280	8	7.5	5	-		High ear placement, stalk rot susceptibility
PHW65/CML438	71	72	120	263	7	7	2	5		Stalk rot susceptible
CML449/DK HBA1	76	76	111	264	8	7.5	4	4	Y	
CML449/DK MM402A	74	74	109	261	8	7.5	5	3		
CML449/LH185	70	70	109	255	8	7.5	2	2		
CML449/LH210	75	74	135	273	8	6.5	4	5	M	
CML449/LH213	75	75	121	283	8	7.5	3	4	Y	
CML449/LH218	78	77	115	270	8	8	4	-		
CML449/PHG47	69	70	104	251	8	7.5	2	2		
CML449/PHKE6	74	73	108	250	7	8	5	5		
CML449/PHN37	71	70	106	256	7	7	2	4	Y	
CML449/PHN46	76	75	124	261	8	8	4	4	M	
CML449/PHN73	72	71	108	256	8	7.5	2	1.5	Y	
CML449/PHW65	74	74	121	265	8	7.5	4	4	Y	
LH204/CML494	75	75	134	280	8	8	4	4	M	
PHKE6/CA00370	74	73	111	260	7	8	4	3	M	
PHN37/CA00370	69	69	113	269	7	7	5	3		Plant health problems

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Pedigree	Silk	Anthesis	EHT	PHT	Disease Rep1	Disease Rep2	Aspect Rep1	Aspect Rep2	Cross again?	Notes
PHN73/CA00370	71	71	126	291	8	8	4	4	M	
PHN73/CA34502	72	71	134	290	8	8	4	4	M	
La Posta Seq C7 F64-1-1-1-1-B-B-B/DK F118	79	77	140	301	7	8	4	4	M	Very high ear placement
La Posta Seq C7 F64-1-1-1-1-B-B-B/DK 6F629	71	71	120	269	6	8	5	5		
La Posta Seq C7 F64-1-1-1-1-B-B-B/DK NL001	73	72	128	270	6	7.5	5	5		Plant health problems
La Posta Seq C7 F64-1-1-1-1-B-B-B/LH193	76	75	106	253	7	7.5	1.5	1.5		
La Posta Seq C7 F64-1-1-1-1-B-B-B/LH195	77	75	119	263	7	8	4	2.5		
La Posta Seq C7 F64-1-1-1-1-B-B-B/LH198	75	73	119	271	6	7.5	5	4		
La Posta Seq C7 F64-1-1-1-1-B-B-B/LH197	75	74	138	294	7	8	5	4	Y	Very high ear placement
La Posta Seq C7 F64-1-1-1-1-B-B-B/LH202	76	74	128	275	6	8	5	-		Disease susceptible
La Posta Seq C7 F64-1-1-1-1-B-B-B/LH204	75	73	118	258	7	7.5	4	5	M	
La Posta Seq C7 F64-1-1-1-1-B-B-B/PHP38	78	78	109	260	7	8	1	4		
La Posta Sequia C7 F71-1-1-1-2-B-B-B/DK NL001	73	72	124	261	7	7.5	5	5		Stalk rot susceptible
La Posta Sequia C7 F71-1-1-1-2-B-B-B/LH193	77	75	107	262	7	7	1	2.5		Stalk rot susceptible
La Posta Sequia C7 F71-1-1-1-2-B-B-B/LH197	73	72	124	281	8	8	5	4		Stalk rot susceptible
La Posta Sequia C7 F71-1-1-1-2-B-B-B/LH202	76	75	105	255	6	8	5	-		Disease susceptible
La Posta Sequia C7 F71-1-1-1-2-B-B-B/LH204	73	73	105	250	7	8	2	2		
La Posta Seq C7 F96-1-1-1-1-B*3/LH193	75	75	105	250	7	7	1.5	2.5		Stalk rot susceptible
La Posta Seq C7 F96-1-1-1-1-B*3/PHP38	75	75	111	254	7	8	2	4		
La Posta Seq C7 F96-1-1-1-1-B*3/PHT10	77	76	125	268	8	7.5	5	4		
La Posta Seq C7 F96-1-1-1-1-B*3/PHW52	74	74	115	263	8	8	2	3		
DK HBA1/Ki21	75	75	108	252	8	8	2	2		
DK MM402A/Ki21	75	74	119	268	7	8	5	4		Stalk rot susceptible
LH185/Ki21	69	69	100	256	8	7	1	1.5		
Ki21/LH213	74	73	115	270	8	8	4	4	M	
LH218/Ki21	77	77	106	261	8	8	5	4		
PHN46/Ki21	73	72	128	258	7	8	5	4		
Ki21/PHW65	72	73	118	264	7	7.5	4	3	M	
DK 6F629/Ki43	73	73	120	259	7	7.5	4	4	M	
DK F118/Ki43	75	75	119	275	7	7.5	4	4	M	
DK HBA1/Ki43	76	76	93	238	8	7	5	2		Susceptible to herbicide damage
Ki43/DK MM402A	75	75	111	253	8	7.5	5	5		
DK NL001/Ki43	69	70	125	264	8	7	5	4		
Ki43/LH185	70	70	104	260	8	7.5	2	2		
LH193/Ki43	75	75	98	246	7	7	5	1.5		Some stalk rot susceptibility
Ki43/LH195	74	74	95	239	8	7.5	1.5	1.5		
Ki43/LH197	71	72	121	268	7	8	4	4	M	

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Ki43/LH198	73	73	113	268	7	7.5	4	3	M	
LH204/Ki43	73	73	105	250	8	6.5	2	4	M	
Ki43/LH210	76	76	118	265	8	8	5	5		
Ki43/PHKE6	72	72	89	235	8	8	5	2		
PHN46/Ki43	76	76	114	246	7	8	5	5		
Ki43/PHN73	77	76	121	271	8	-	5	-		
PHP38/Ki43	75	75	104	254	8	8	2.5	2.5		
NC320/LH197	74	74	118	269	3	6.5	5	5		Stalk rot, disease susceptible
PHMK0/NC320	78	76	124	280	7	8	4	4	M	
NC320/PHP38	75	75	114	256	7	7.5	2.5	5		
LH132.PHG39	73	73	95	245	5					
LH283.LH287	69	69	73	240	6					
MBS2655/MBS9508	69	69	108	253	5.5					
LH195/LH212Ht	71	71	109	271	7	8				
DK68-04	67	67	98	248	7					
P1498	67	67	95	260	7					
P1745R	71	71	120	275	8					
P2088R	71	71	118	275	8					
DK F118/LH210	75	74	136	289		6.5				
LH195/LH216	70	70	113	263		7.5				
LH195/PHN46	70	72	58	130		6				

GEM Raleigh legend:

Aspect ratings used a 1-5 scale, with 1 = best, 5 = trash.

Disease rated on a 1-9 scale, with 9 = best and 1 = dead.