

WB # 220 PHENC

1997 MALES + bbl

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WILLOW-BOWRON # 220: 1997 MALE FLOWER RECEPITIVITY SURVEY - sorted by X-Grid & Y-Grid

					Survey Dates >>>								
Clone No.	Tree No.	X - Grid	Y - Grid		28-May-97	30-May-97	2-Jun-97	4-Jun-97	6-Jun-97	8-Jun-97	10-Jun-97	12-Jun-97	
1582	5 S	4	4		4	4	4	4	4	4	4	4	
1591	6 Q	6	6		4	4	4	4	4	4	4	4	
985	10 Y	6	4		4	4	4	4	4	4	4	4	
1582	11 CC	8	4		4	4	4	4	4	4	4	4	
1502	11 W	8	4		4	4	4	4	4	4	4	4	
1528	12 AA	9	4		4	4	4	4	4	4	4	4	
1502	7 N	10	0		0	0	0	0	0	0	0	0	
1526	10 U	12	4		4	4	4	4	4	4	4	4	
1503	17 Q	17	4		4	4	4	4	4	4	4	4	
1591	17 R	18	4		4	4	4	4	4	4	4	4	
1559	21 W	18	4		4	4	4	4	4	4	4	4	
1587	19 O	21	4		4	4	4	4	4	4	4	4	
1503	13 E	22	4		4	4	4	4	4	4	4	4	
1531	14 J	22	4		4	4	4	4	4	4	4	4	
1592	22 AA	25	4		4	4	4	4	4	4	4	4	
1542	19 R	25	4		4	4	4	4	4	4	4	4	
1528	23 AA	26	4		4	4	4	4	4	4	4	4	
1598	24 U	26	4		4	4	4	4	4	4	4	4	
1597	15 G	30	4		4	4	4	4	4	4	4	4	
1597	20 Q	30	4		4	4	4	4	4	4	4	4	
1587	24 BB	31	4		4	4	4	4	4	4	4	4	
1557	33 Y	33	4		4	4	4	4	4	4	4	4	
1557	25 F	34	4		4	4	4	4	4	4	4	4	
1591	33 DD	36	4		4	4	4	4	4	4	4	4	
1502	31 L	39	4		4	4	4	4	4	4	4	4	
1542	27 C	40	4		4	4	4	4	4	4	4	4	
1592	36 V	45	4		4	4	4	4	4	4	4	4	
980	36 Z	45	4		4	4	4	4	4	4	4	4	
988	36 V	46	4		4	4	4	4	4	4	4	4	
1526	28 H	47	4		4	4	4	4	4	4	4	4	
1598	28 C	47	4		4	4	4	4	4	4	4	4	
980	28 D	47	4		4	4	4	4	4	4	4	4	
1526	28 H	47	4		4	4	4	4	4	4	4	4	
988	31 L	47	4		4	4	4	4	4	4	4	4	
985	35 V	47	4		4	4	4	4	4	4	4	4	
1559	36 BB	48	4		4	4	4	4	4	4	4	4	
985	36 Z	48	4		4	4	4	4	4	4	4	4	

MB #220 PENG.

1997 FEMALES

WILLOW-BOWRON # 220 1997 FEMALE FLOWER RECEPTIVITY SURVEY - sorted by Y-Grid & X-Grid

Survey Dates >>>

Clone No.	Tree No.	X - Grid	Y - Grid	28-May-97	30-May-97	2-Jun-97	4-Jun-97	6-Jun-97	8-Jun-97	10-Jun-97	12-Jun-97
1582	5 S		4	4	4	4	4	4			
1591	6 Q		6			4	4	4			
985	10 Y		6			4	4	4			
1582	11 CC		8			4	4	4			
1502	11 W		8					4	4	4	
1528	12 AA		9					4	4	4	
1502	7 N		10					4	4	4	
1526	10 U		12			4	4	4	4	4	
1503	17 Q		17			4	4	4	4		
1591	17 R		18			4	4	4	4		
1559	21 W		18			4	4	4	4		
1587	19 O		21			4	4				
1503	13 E		22					4	4	4	
1531	14 J		22					4	4	4	
1592	22 AA		25			4	4	4			
1542	19 R		25					4	4	4	
1528	23 AA		26					4	4	4	
1598	24 U		26					4	4	4	
1597	15 G		30					4	4	4	
1597	20 Q		30					4	4	4	
1587	24 BB		31			4	4	4			
1557	33 Y		33					4	4	4	
1557	25 F		34			4	4				
1591	33 DD		36			4	4	4			
1502	31 L		39					4	4	4	
1542	27 C		40					4	4	4	
1592	36 V		45			4	4	4			
980	36 Z		45			4	4	4			
988	36 V		46			4	4	4			
1531	28 B		47					4	4	4	
1598	28 C		47			4	4	4			
980	28 D		47			4	4	4			
1526	28 H		47					4	4	4	
988	31 L		47					4	4	4	
985	35 V		47					4	4	4	
1559	36 BB		48					4	4	4	
985	36 Z		48					4	4	4	

NB# 220 P亨0

1998 MALES

WILLOW-BOWRON # 220: 1998 MALE FLOWER RECEPITIVITY SURVEY - sorted by X-Grid & Y-Grid

Survey Dates >>>

Clone No.	Tree No.	X - Grid	Y - Grid	17-May-97	19-May-97	22-May-97	24-May-97	26-May-97	28-May-97	1-Jun-97	3-Jun-97
1582	5 S	4	0	0	0	0	0	0	0	0	0
1591	6 Q	6	4	4	4	4	4	4	4	4	4
985	10 Y	6	4	4	4	4	4	4	4	4	4
1582	11 CC	8	0	0	0	0	0	0	0	0	0
1502	11 W	8		4	4	4	4	4	4	4	4
1528	12 AA	9	4	4	4	4	4	4	4	4	4
1502	7 N	10		4	4	4	4	4	4	4	4
1526	10 U	12		4	4	4	4	4	4	4	4
1503	17 Q	17	4	4	4	4	4	4	4	4	4
1591	17 R	18	4	4	4	4	4	4	4	4	4
1559	21 W	18	4	4	4	4	4	4	4	4	4
1587	19 O	21	4	4	4	4	4	4	4	4	4
1503	13 E	22		4	4	4	4	4	4	4	4
1531	14 J	22	4	4	4	4	4	4	4	4	4
1592	22 AA	25	4	4	4	4	4	4	4	4	4
1542	19 R	25		4	4	4	4	4	4	4	4
1528	23 AA	26		4	4	4	4	4	4	4	4
1598	24 U	26		4	4	4	4	4	4	4	4
1597	15 G	30		4	4	4	4	4	4	4	4
1597	20 Q	30		4	4	4	4	4	4	4	4
1587	24 BB	31	4	4	4	4	4	4	4	4	4
1557	33 Y	33	4	4	4	4	4	4	4	4	4
1557	25 F	34	4	4	4	4	4	4	4	4	4
1591	33 DD	36		4	4	4	4	4	4	4	4
1502	31 L	39		4	4	4	4	4	4	4	4
1542	27 C	40	4	4	4	4	4	4	4	4	4
1592	36 V	45	4	4	4	4	4	4	4	4	4
980	36 Z	45	4	4	4	4	4	4	4	4	4
988	36 V	46	4	4	4	4	4	4	4	4	4
1531	28 B	47	4	4	4	4	4	4	4	4	4
1598	28 C	47	4	4	4	4	4	4	4	4	4
980	28 D	47	4	4	4	4	4	4	4	4	4
1526	28 H	47		4	4	4	4	4	4	4	4
988	31 L	47	4	4	4	4	4	4	4	4	4
985	35 V	47	4	4	4	4	4	4	4	4	4
1559	36 BB	48	4	4	4	4	4	4	4	4	4
985	36 Z	48	4	4	4	4	4	4	4	4	4

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B # 220 PHENO.

1998 FEMALES

3/24/99

Prince George Tree Improvement Station

1 of 1

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WILLOW-BOWRON # 220 1998 FEMALE FLOWER RECEPITIVITY SURVEY - sorted by Y-Grid & X-Grid

				Survey Dates >>>							
Clone No.	Tree No.	X - Grid	Y - Grid	17-May-97	19-May-97	22-May-97	24-May-97	26-May-97	28-May-97	1-Jun-97	3-Jun-97
1582	5 S	4	4	4	4	4	4	4	4	4	4
1591	6 Q	6	4	4	4	4	4	4	4	4	4
985	10 Y	6	4	4	4	4	4	4	4	4	4
1582	11 CC	8	4	4	4	4	4	4	4	4	4
1502	11 W	8	4	4	4	4	4	4	4	4	4
1528	12 AA	9	4	4	4	4	4	4	4	4	4
1502	7 N	10	4	4	4	4	4	4	4	4	4
1526	10 U	12	4	4	4	4	4	4	4	4	4
1503	17 Q	17	4	4	4	4	4	4	4	4	4
1591	17 R	18	4	4	4	4	4	4	4	4	4
1559	21 W	18	4	4	4	4	4	4	4	4	4
1587	19 O	21	4	4	4	4	4	4	4	4	4
1503	13 E	22	4	4	4	4	4	4	4	4	4
1531	14 J	22	4	4	4	4	4	4	4	4	4
1592	22 AA	25	4	4	4	4	4	4	4	4	4
1542	19 R	25	4	4	4	4	4	4	4	4	4
1528	23 AA	26	4	4	4	4	4	4	4	4	4
1598	24 U	26	4	4	4	4	4	4	4	4	4
1597	15 G	30	4	4	4	4	4	4	4	4	4
1597	20 Q	30	4	4	4	4	4	4	4	4	4
1587	24 BB	31	4	4	4	4	4	4	4	4	4
1557	33 Y	33	4	4	4	4	4	4	4	4	4
1557	25 F	34	4	4	4	4	4	4	4	4	4
1591	33 DD	36	4	4	4	4	4	4	4	4	4
1502	31 L	39	4	4	4	4	4	4	4	4	4
1542	27 C	40	4	4	4	4	4	4	4	4	4
1592	36 V	45	4	4	4	4	4	4	4	4	4
980	36 Z	45	4	4	4	4	4	4	4	4	4
988	36 V	46	4	4	4	4	4	4	4	4	4
1531	28 B	47	4	4	4	4	4	4	4	4	4
1598	28 C	47	4	4	4	4	4	4	4	4	4
980	28 D	47	4	4	4	4	4	4	4	4	4
1526	28 H	47	4	4	4	4	4	4	4	4	4
988	31 L	47	4	4	4	4	4	4	4	4	4
985	35 V	47	4	4	4	4	4	4	4	4	4
1559	36 BB	48	4	4	4	4	4	4	4	4	4
985	36 Z	48	4	4	4	4	4	4	4	4	4

blobby

WEB # 220 PHENOM.

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Bulking only CI ne No. 1464 added to bottom of this sheet when needed.											
Mo	Wd	Fri	Sun	Tue	Thur	Fri	Sat	Mo	Mo	Mo	Mo
1479 F	15	-	0	-	0	-	0	4	0	40	40
1479 V	15	-	0	-	0	-	0	4	0	40	40
1478 U	24	-	0	-	0	-	0	4	0	40	40
1478 V	25	-	0	-	0	-	0	0	0	0	0
1479 F	15	-	0	-	0	-	0	4	0	40	40
1479 X	26	-	0	-	0	-	0	4	0	40	40
1479 Y	27	-	0	-	0	-	0	4	0	40	40
1479 Z	28	-	0	-	0	-	0	4	0	40	40
1480 A	29	-	0	-	0	-	0	4	0	40	40
1480 B	30	-	0	-	0	-	0	4	0	40	40
1480 C	31	-	0	-	0	-	0	4	0	40	40
1480 D	32	-	0	-	0	-	0	4	0	40	40
1480 E	33	-	0	-	0	-	0	4	0	40	40
1480 F	34	-	0	-	0	-	0	4	0	40	40
1480 G	35	-	0	-	0	-	0	4	0	40	40
1480 H	36	-	0	-	0	-	0	4	0	40	40
1480 I	37	-	0	-	0	-	0	4	0	40	40
1480 J	38	-	0	-	0	-	0	4	0	40	40
1480 K	39	-	0	-	0	-	0	4	0	40	40
1480 L	40	-	0	-	0	-	0	4	0	40	40
1480 M	41	-	0	-	0	-	0	4	0	40	40
1480 N	42	-	0	-	0	-	0	4	0	40	40
1480 O	43	-	0	-	0	-	0	4	0	40	40
1480 P	44	-	0	-	0	-	0	4	0	40	40
1480 Q	45	-	0	-	0	-	0	4	0	40	40
1480 R	46	-	0	-	0	-	0	4	0	40	40
1480 S	47	-	0	-	0	-	0	4	0	40	40
1480 T	48	-	0	-	0	-	0	4	0	40	40
1480 U	49	-	0	-	0	-	0	4	0	40	40
1480 V	50	-	0	-	0	-	0	4	0	40	40
1480 W	51	-	0	-	0	-	0	4	0	40	40
1480 X	52	-	0	-	0	-	0	4	0	40	40
1480 Y	53	-	0	-	0	-	0	4	0	40	40
1480 Z	54	-	0	-	0	-	0	4	0	40	40
1481 A	55	-	0	-	0	-	0	4	0	40	40
1481 B	56	-	0	-	0	-	0	4	0	40	40
1481 C	57	-	0	-	0	-	0	4	0	40	40
1481 D	58	-	0	-	0	-	0	4	0	40	40
1481 E	59	-	0	-	0	-	0	4	0	40	40
1481 F	60	-	0	-	0	-	0	4	0	40	40
1481 G	61	-	0	-	0	-	0	4	0	40	40
1481 H	62	-	0	-	0	-	0	4	0	40	40
1481 I	63	-	0	-	0	-	0	4	0	40	40
1481 J	64	-	0	-	0	-	0	4	0	40	40
1481 K	65	-	0	-	0	-	0	4	0	40	40
1481 L	66	-	0	-	0	-	0	4	0	40	40
1481 M	67	-	0	-	0	-	0	4	0	40	40
1481 N	68	-	0	-	0	-	0	4	0	40	40
1481 O	69	-	0	-	0	-	0	4	0	40	40
1481 P	70	-	0	-	0	-	0	4	0	40	40
1481 Q	71	-	0	-	0	-	0	4	0	40	40
1481 R	72	-	0	-	0	-	0	4	0	40	40
1481 S	73	-	0	-	0	-	0	4	0	40	40
1481 T	74	-	0	-	0	-	0	4	0	40	40
1481 U	75	-	0	-	0	-	0	4	0	40	40
1481 V	76	-	0	-	0	-	0	4	0	40	40
1481 W	77	-	0	-	0	-	0	4	0	40	40
1481 X	78	-	0	-	0	-	0	4	0	40	40
1481 Y	79	-	0	-	0	-	0	4	0	40	40
1481 Z	80	-	0	-	0	-	0	4	0	40	40
1482 A	81	-	0	-	0	-	0	4	0	40	40
1482 B	82	-	0	-	0	-	0	4	0	40	40
1482 C	83	-	0	-	0	-	0	4	0	40	40
1482 D	84	-	0	-	0	-	0	4	0	40	40
1482 E	85	-	0	-	0	-	0	4	0	40	40
1482 F	86	-	0	-	0	-	0	4	0	40	40
1482 G	87	-	0	-	0	-	0	4	0	40	40
1482 H	88	-	0	-	0	-	0	4	0	40	40
1482 I	89	-	0	-	0	-	0	4	0	40	40
1482 J	90	-	0	-	0	-	0	4	0	40	40
1482 K	91	-	0	-	0	-	0	4	0	40	40
1482 L	92	-	0	-	0	-	0	4	0	40	40
1482 M	93	-	0	-	0	-	0	4	0	40	40
1482 N	94	-	0	-	0	-	0	4	0	40	40
1482 O	95	-	0	-	0	-	0	4	0	40	40
1482 P	96	-	0	-	0	-	0	4	0	40	40
1482 Q	97	-	0	-	0	-	0	4	0	40	40
1482 R	98	-	0	-	0	-	0	4	0	40	40
1482 S	99	-	0	-	0	-	0	4	0	40	40
1482 T	100	-	0	-	0	-	0	4	0	40	40
1482 U	101	-	0	-	0	-	0	4	0	40	40
1482 V	102	-	0	-	0	-	0	4	0	40	40
1482 W	103	-	0	-	0	-	0	4	0	40	40
1482 X	104	-	0	-	0	-	0	4	0	40	40
1482 Y	105	-	0	-	0	-	0	4	0	40	40
1482 Z	106	-	0	-	0	-	0	4	0	40	40
1483 A	107	-	0	-	0	-	0	4	0	40	40
1483 B	108	-	0	-	0	-	0	4	0	40	40
1483 C	109	-	0	-	0	-	0	4	0	40	40
1483 D	110	-	0	-	0	-	0	4	0	40	40
1483 E	111	-	0	-	0	-	0	4	0	40	40
1483 F	112	-	0	-	0	-	0	4	0	40	40
1483 G	113	-	0	-	0	-	0	4	0	40	40
1483 H	114	-	0	-	0	-	0	4	0	40	40
1483 I	115	-	0	-	0	-	0	4	0	40	40
1483 J	116	-	0	-	0	-	0	4	0	40	40
1483 K	117	-	0	-	0	-	0	4	0	40	40
1483 L	118	-	0	-	0	-	0	4	0	40	40
1483 M	119	-	0	-	0	-	0	4	0	40	40
1483 N	120	-	0	-	0	-	0	4	0	40	40
1483 O	121	-	0	-	0	-	0	4	0	40	40
1483 P	122	-	0	-	0	-	0	4	0	40	40
1483 Q	123	-	0	-	0	-	0	4	0	40	40
1483 R	124	-	0	-	0	-	0	4	0	40	40
1483 S	125	-	0	-	0	-	0	4	0	40	40
1483 T	126	-	0	-	0	-	0	4	0	40	40
1483 U	127	-	0	-	0	-	0	4	0	40	40
1483 V	128	-	0	-	0	-	0	4	0	40	40
1483 W	129	-	0	-	0	-	0	4	0	40	40
1483 X	130	-	0	-	0	-	0	4	0	40	40
1483 Y	131	-	0	-	0	-	0	4	0	40	40
1483 Z	132	-	0	-	0	-	0	4	0	40	40
1484 A	133	-	0	-	0	-	0	4	0	40	40
1484 B	134	-	0	-	0	-	0	4	0	40	40
1484 C	135	-	0	-	0	-	0	4	0	40	40
1484 D	136	-	0	-	0	-	0	4	0	40	40
1484 E	137	-	0	-	0	-	0	4	0	40	40
1484 F	138	-	0	-	0	-	0	4	0	40	40
1484 G	139	-	0	-	0	-	0	4	0	40	40
1484 H	140	-	0	-	0	-	0	4	0	40	40
1484 I	141	-	0	-	0	-	0	4	0	40	40
1484 J	142	-	0	-	0	-	0	4	0	40	40
1484 K	143	-	0	-	0	-	0	4	0	40	40
1484 L	144	-	0	-	0	-	0	4	0	40	40
1484 M	145	-	0	-	0	-	0	4	0	40	40
1484 N	146	-	0	-	0	-	0	4	0	40	40
1484 O	147	-	0	-	0	-	0	4	0	40	40
1484 P	148	-	0	-	0	-	0	4	0	40	40
1484 Q	149	-	0	-	0	-	0	4	0	40	40
1484 R	150	-	0	-	0	-	0	4	0	40	40
1484 S	151	-	0	-	0	-	0	4	0	40	40
1484 T	152	-	0	-	0	-	0	4	0	40	40
1484 U	153	-	0	-	0	-	0	4	0	40	40
1484 V	154	-	0	-	0	-	0	4	0	40	40
1484 W	155	-	0	-	0	-	0	4	0	40	40
1484 X	156	-	0	-	0	-	0	4	0	40	40
1484 Y	157	-	0	-	0	-	0	4	0	40	40
1484 Z	158	-	0	-	0	-	0	4	0	40	40
1485 A	159	-	0	-	0	-	0	4	0	40	40
1485 B	160	-	0	-	0	-	0	4	0	40	40
1485 C	161	-	0	-	0	-	0	4	0	40	40
1485 D	162	-	0	-	0	-	0	4	0	40	40
1485 E	163	-	0	-	0	-	0	4	0	40	40
1485 F	164	-	0	-	0	-	0	4	0	40	40
1485 G	165	-	0	-	0	-	0	4	0	40	40
1485 H	166	-	0	-	0	-	0	4	0	40	40
1485 I	167	-	0	-	0	-	0	4	0	40	40
1485 J</td											

Species seen at 3-4 times during surveys. Subsamples of litter or no pollen. Total 1585, but choose new ramets if little or no pollen.

30 Gralls: 7 Clignets which were never seen - Survey
31 Gallats: 2 Clignets (934 W.C. 1582 W.C.) which had no pollen in 1998 Survey
32 Sealec trees for 934 was originally done in BLK. Use previous ramets

Trees (9 Choices x 2 Tree Answers) _____

Trees (9 Clones x 2 Trees/Clone) = 18 LAGGED RED

LOW-B-#220-1539 SOURCE = LAGGED RED

LOW-BY-~~ME~~ #220 - 1929 - ELOCOC SOURCE

h221 gm

11

NB # 220

PHENO.

2000

NOTE:
NO PHENO FOR
2001

WILLOW-BOWRON # 220 - 2000 PHENOLOGY SURVEY										Julie	Hai	31/2001		
9 Clones = 18 Trees = FLAGGED RED (1999 Survey)										Flagging!				
16 CLONES - 32 TREES FLAGGED PINK "Designated Crossing" (1997/98 Surveys)														
All 25 Clones = 50 trees surveyed for male/female flowers.														
Survey Date >>	June 5		June 7		June 9		June 11		June 13		June 16		June 18	
Clone No.	X	Y	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
✓ 1582	-S	4	-	4	3	4	3	4	4	4	4	-	4	-
✓ 1591	-Q	6	3	4	3	4	4	4	4	4	-	-	-	-
✓ 985	-Y	6	-	4	3	4	3	4	4	4	4	-	-	-
✓ 1582	CC	8	-	4	3	4	3	4	4	4	4	-	-	-
✓ 1502	-W	8	-	4	-	4	3	4	3	4	4	-	4	-
✓ 1528	AA	9	-	-	3	4	3	4	4	4	4	-	4	-
✓ 1502	-N	10	-	-	-	4	3	4	3	4	4	4	4	-
✓ 1526	-U	12	-	-	3	4	3	4	4	4	4	4	4	-
✓ 1479	F	15	3	4	3	4	4	4	4	4	-	-	-	-
✓ -1479	V	15	-	4	3	4	3	4	11	4	4	-	4	-
✓ 1503	-Q	17	3	4	3	4	4	4	4	4	-	-	-	-
✓ 1591	-R	18	3	4	3	4	4	4	4	4	-	-	-	-
✓ 1559	-W	18	-	4	3	4	3	4	4	4	4	-	-	-
✓ 1587	-O	21	3	4	3	4	4	4	4	4	-	-	-	-
✓ 1503	-E	22	3	4	4	4	4	4	4	4	-	-	-	-
✓ 1531	-J	22	-	4	3	4	3	4	11	4	4	4	-	-
✓ 1478	U	24	3	4	3	4	4	4	11	4	4	-	-	-
✓ 1542	-R	25	-	4	-	4	3	11	3	4	4	4	-	-
✓ 1582	V	25	-	4	3	4	3	4	4	4	-	-	-	-
✓ 1592	AA	25	-	4	-	4	3	4	3	4	4	-	-	-
✓ 1528	AA	26	-	-	-	4	3	4	3	4	4	4	-	-
✓ 1598	-U	26	3	-	3	4	4	4	4	4	4	-	-	-
✓ 1582	H	28	-	4	3	4	3	4	4	4	4	-	-	-
✓ 1484	P	29	-	4	3	4	3	4	4	4	4	-	-	-
✓ 1597	-G	30	-	4	-	4	-	4	3	4	4	4	-	-
✓ 1597	-Q	30	-	4	-	4	3	4	4	4	4	-	-	-
✓ 1587	BB	31	3	4	4	4	4	4	4	4	-	-	-	-
✓ 984	D	32	-	4	-	4	3	4	3	4	4	-	4	-
✓ 1587	R?	32	14	14	-	4	3	4	3	4	4	-	-	-
✓ 1557	-Y	33	-	4	3	4	3	4	4	4	4	-	-	-
✓ 1557	-F	34	-	4	3	4	3	4	4	4	4	-	-	-
✓ 1488	F	36	-	4	-	4	3	4	3	4	4	-	-	-
✓ 1591	DD	36	3	4	3	4	4	4	4	4	4	-	-	-
✓ 1502	-L	39	-	-	-	4	3	4	3	4	4	4	-	4
✓ 1542	-C	40	-	4	-	4	3	4	3	4	4	4	-	-
✓ 1475	T	41	-	-	3	4	4	4	4	4	4	-	-	-
✓ 1478	DD	41	4	4	4	4	4	4	4	4	4	-	-	-

WILLOW-BOWRON # 220 - 2000 PHENOLOGY SURVEY											
9 Clones = 18 Trees = FLAGGED R E D (1999 Survey)											
16 CLONES - 32 TREES - FLAGGED PINK "Designated Crossing" (1997/98 Surveys)											
All 25 Clones = 50 trees surveyed for male/female flowers.											
C:\My DOCUMENTS\PHENOLOGY_1\75 Gen\220 Willow-Bowron\2000\220 initial & final survs 25 Clones.xls											
Survey Date>>											
Clone No.		X	Y	June 5	June 7	June 9	June 11	June 13	June 16	June 18	
				Female	Male	Female	Male	Female	Male	Female	Male
place with											
✓1475 B 42											
✓1488 Y 42											
✓984 E 43											
K 11 ✓1487 X 43											
✓1472 AA 44											
✓1487 BB 44											
✓1592 -V 45											
✓980 Z 45											
✓1472 F 46											
✓988 -V 46											
✓1531 -B 47											
✓1598 -C 47											
✓980 D 47											
✓1526 -H 47											
✓988 -L 47											
✓985 -V 47											
✓1559 BB 48											
✓985 -Z 48											
LEGEND											
FEMALE PHENOLOGY:											
4 Receptive Stage											
20 % of a Ramel's Flowers are at Receptive Stage (Stages 5 & 6)											
Receptive Period: Stage 5 & 6 as per PL Pheno Manual											
- Prior to 4 Rating Tree not receptive											
- After Stage 5 & 6 Receptively											
80 % of a Ramel's Flowers are Past Receptively (Stages 7 or 8)											
0 No Females											
MALE PHENOLOGY:											
4 Pollen flies when Cluster tapped with Hand on SOUTH Side of Tree											
- Pollen NOT flying, i.e. not yet developed											
- Pollen Flight finished when Cluster-Tapping on NORTH Side does not produce Pollen											
0 No Males											

≡ B # 220 PHENO

2002

15

WILLOW-BOWRON # 220 / 2002 PHENOLGY / SURVEY									
9 Clones = 18 Trees = FLAGGED RE D (1999 Survey)									
16 CLONES - 32 TREES - FLAGGED RE D (1999 Survey) "Designed Crossings" (1997/98 Survey)									
WILLOW-BOWRON # 220 / 2002 PHENOLGY / SURVEY									
Survey Date	X	Y	6/10	6/12	6/14	6/16	6/18	6/20	6/22
Clone No	Female	Male	Female	Male	Female	Male	Female	Male	Female
1528 AA	9	-	3	4	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1479 V	15	3	4	4	4	4	4	4	4
1503 Q	17	4	4	4	4	4	4	4	4
1587 R	18	4	4	4	4	4	4	4	4
1559 W	18	4	4	4	4	4	4	4	4
1503 O	21	4	4	4	4	4	4	4	4
1587 U	24	4	4	4	4	4	4	4	4
1478 J	25	-	4	4	4	4	4	4	4
1542 R	25	-	4	4	4	4	4	4	4
1582 V	25	-	4	4	4	4	4	4	4
1592 AA	25	-	-	3	4	4	4	4	4
1528 AA	26	-	-	3	4	4	4	4	4
1598 U	26	3	-	4	4	4	4	4	4
1582 H	28	3	4	4	4	4	4	4	4
1484 P	29	3	4	4	4	4	4	4	4
1597 G	30	-	-	3	4	4	4	4	4
1597 A	30	-	-	3	4	4	4	4	4
1587 BB	31	4	4	4	4	4	4	4	4
984 D	32	3	4	4	4	4	4	4	4
1484 R	32	3	4	4	4	4	4	4	4
1587 BB	31	4	4	4	4	4	4	4	4
1597 A	30	-	-	3	4	4	4	4	4
1484 P	29	3	4	4	4	4	4	4	4
1582 H	28	3	4	4	4	4	4	4	4
1598 U	26	3	-	4	4	4	4	4	4
1528 AA	26	-	-	3	4	4	4	4	4
1592 AA	25	-	-	3	4	4	4	4	4
1582 V	25	-	4	4	4	4	4	4	4
1542 R	25	-	4	4	4	4	4	4	4
1478 U	24	4	4	4	4	4	4	4	4
1531 J	22	3	4	4	4	4	4	4	4
1503 E	22	4	4	4	4	4	4	4	4
1587 O	21	4	4	4	4	4	4	4	4
1559 W	18	4	4	4	4	4	4	4	4
1591 R	18	3	4	4	4	4	4	4	4
1479 V	17	4	4	4	4	4	4	4	4
1503 Q	17	4	4	4	4	4	4	4	4
1479 F	15	3	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4
1502 N	10	-	-	3	4	4	4	4	4
1528 AA	9	-	-	3	4	4	4	4	4
1502 W	8	-	4	4	4	4	4	4	4
1582 CC	8	3	4	4	4	4	4	4	4
985 Y	6	4	4	4	4	4	4	4	4
1591 Q	6	3	4	4	4	4	4	4	4
1582 S	4	-	4	4	4	4	4	4	4
1526 U	12	-	-	3	4	4	4	4	4

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220

PHENOL

WILLOW-BOWRON # 220 - 2003 PHENOLOGY SURVEY									
9 Clones = 18 Trees = FLAGGED RED (1999 Survey)									
16 CLONES . 32 TREES - FLAGGED PINK "Designated Crossing" (1997/98 Surveys)									
All 25 Clones = 50 trees surveyed for male/female flowers.									
W:\ntispg-3\HTI\ROOT\Work\Seed\Rita's Files\My DOCUMENTS\PHENOLOGY\220 Willow-Bowron\2003 220 initial 25 Clones.xls									
Survey Date>>	June 2	June 4	June 6	June 9					
Clone No.	X	Y	Female	Male	Female	Male	Female	Male	Female
1582	-S	4	-	4	-	4	3	4	4
1591	-Q	6	-	4	3	4	4	4	4
985	-Y	6	-	4	3	4	4	4	-
1582	CC	8	-	4	3	4	3	4	4
1502	-W	8	-	4	-	4	-	4	3
1528	AA	9	-	4	-	4	3	4	4
1502	-N	10	-	-	-	4	3	4	4
1526	-U	12	-	4	-	4	-	4	4
1479	F	15	3	4	4	4	4	4	-
1479	V	15	3	4	4	4	4	4	-
1503	-Q	17	-	4	3	4	4	4	-
1591	-R	18	-	4	3	4	4	4	4
1559	-W	18	-	4	3	4	4	4	4
1587	-O	21	-	4	-	4	3	4	4
1503	-E	22	3	4	4	4	4	4	-
1531	J	22	-	4	-	4	3	4	4
1478	U	24	-	4	3	4	4	-	4
1542	-R	25	-	4	-	4	-	4	3
1582	V	25	-	4	3	4	3	4	4
1592	AA	25	-	4	3	4	4	4	4
1528	AA	26	-	4	-	4	3	4	4
1598	-U	26	-	4	3	4	4	4	4
1597	CC	27	-	4	-	4	3	4	4
1582	H	28	-	4	3	4	4	4	-
1484	P	29	-	4	-	4	3	-	4
1597	DD	30	-	4	-	4	3	4	4
1597	-G	30	DMIT	-	-	-	-	-	-
1597	-Q	30	DMIT	-	-	-	-	-	-
1587	BB	31	3	4	4	4	4	4	-
984	D	32	3	4	4	4	4	4	-
1484	R	32	-	4	-	4	3	4	4
1557	-Y	33	-	4	-	4	3	4	4
1557	-F	34	-	4	3	4	3	4	-
1475	CC	35	-	4	-	4	3	4	4
1488	F	36	-	4	3	4	4	4	-
1591	DD	36	-	4	3	4	4	4	4
1502	-L	39	-	4	-	4	-	4	3
1542	-C	40	DMIT	-	-	-	-	-	-
1475	T	41	-	4	-	4	3	4	4
1478	DD	41	3	4	4	4	4	-	-

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WILLOW-BOWRON # 220 - 2003 PHENOLOGY SURVEY

9 Clones = 18 Trees = FLAGGED RED (1999 Survey)

16 CLONES - 32 TREES - FLAGGED PINK "Designated Crossing" (1997/98 Surveys)

All 25 Clones = 50 trees surveyed for male/female flowers.

\\fslrpq-3\HTI\ROOT\Working\Seed\Rita's Files\My DOCUMENTS\PHENOLOGY\220 Willow-Bowron\2003 220 initial 25 Clones.xls

Clone No.	Survey Date >>		June 2		June 4		June 6		June 9		June 11		June 13		June 15		June 17		June 19		June 21		June 23		June 25	
	X	Y	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
1475	B	42	0	H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1488	Y	42	-	4	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
984	E	43	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
1481	X	43	-	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
1542	AA	43	-	4	-	4	-	4	-	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	
1472	AA	44	-	4	-	4	-	4	-	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	
1481	BB	44	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
1592	-V	45	-	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
980	-Z	45	-	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
1472	F	46	-	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	
988	-V	46	-	4	-	4	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
1531	-B	47	-	4	3	4	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
1598	-C	47	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
980	-D	47	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
1526	-H	47	-	4	-	4	-	4	-	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	
988	-L	47	-	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
985	-V	47	-	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
1559	BB	48	-	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
985	-Z	48	-	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	

LEGEND

see CPF Legend for details

late clones (♀)
 1472
 1502
 1526
 1528
 1542

SMP June 8/03
 only one for late clones
 May 29
 1470/1
 987/2
 1481/2, 1483/1
 987/1
 1559, 1587
 1481, 1483, 987/1

WB # 220 PHENO.

2000+

2004 PHENOLGY SURVEY							
WILLOW-BOWRON # 220 -		9 CLONES = 18 TREES - FLAGGED RED (1997 Survey)					
ALL 25 CLONES = 50 TREES SURVEYED FOR MALE/ FEMALE FLOWERS.							
Clone No.	X	Y	Female Male				
1582 S 4	-	4	-	4	3	4	4
1591 Q 6	-						
985 Y 6	-						
1582 CC 8	-	4	-	4	3	4	4
1502 W 8	-						
1528 AA 9	-	4	-	4	3	4	4
1526 U 12	-	4	-	4	3	4	4
1502 N 15	-						
1479 F 15	3	4	4	4	4	4	4
1479 V 15	3	4	4	4	4	4	4
1503 Q 17	-	4	-	4	3	4	4
1587 O 21	-	4	-	4	3	4	4
1503 E 22	-	4	-	4	3	4	4
1531 J 22	-	4	-	4	3	4	4
1478 U 24	3	4	4	4	3	4	4
1542 R 25	-						
1582 V 25	-						
1592 AA 25	-	4	-	4	3	4	4
1528 AA 26	-	4	-	4	3	4	4
1598 U 26	-	4	-	4	3	4	4
1597 ZB 27	-	4	-	4	3	4	4
1597 BB 27	-	4	-	4	3	4	4
1597 II 28	-						
1484 P 29	-	4	-	4	3	4	-
1597 DD 30	-	4	-	4	3	4	-
1587 BB 31	3	4	4	4	3	4	4
984 D 32	-	4	-	4	3	4	4
1557 Y 32	-	4	-	4	3	4	4
1591 CC 33	-	4	-	4	3	4	4
1488 F 34	-	4	-	4	3	4	4
1475 CC 35	-	4	-	4	3	4	4
1591 DD 36	-	4	-	4	3	4	4
1502 L 39	-	-	-	-	3	4	4
1475 T 41	-	4	-	4	4	4	4
1478 DD 41	-	4	-	4	4	4	4
1488 Y 42	-	-	-	-	3	4	4
1484 E 43	3	4	4	4	2	4	4
984							

Swinglets
28 K

a hand of +s

WILLOW-BORROWN # 220 - 2004 PHENOLOGY SURVEY											
9 Clones = 18 Trees = FLAGGED RED (1993 Survey)											
16 CLONES - 32 TREES - FLAGGED PINK "Designated Crossing" (1997/98 Survey)											
All 25 Clones = 50 trees surveyed for male/female flowers.											
Survey Date <--> Month											
Clone No.	X	Y	Female	Male	Female	Male	Female	Male	Female	Male	Female
1481	X	43	3	4	3	4	4	4	-		
1542	AA	43	-	4	-	4	-	4			
1472	AA	44	-	4	-	4	4	4			
1481	BB	44	3	4	3	4	4	4	-		
1592	V	45	-	4	-	4	4	4			
980	Z	45	3	4	3	4	4	4			
1472	F	46	-	4	-	4	4	4			
988	V	46	-	4	-	4	4	4			
1531	B	47	-	4	-	4	4	4			
1598	C	47	3	4	4	4	4	4			
980	D	47	-	4	-	4	4	4			
1526	H	47	-	4	-	4	4	4			
988	L	47	-	4	3	4	4	4			
985	V	47	-	4	-	4	4	4			
1559	BB	48	-	4	-	4	4	4			
985	Z	48	-	4	-	4	3	4	4	4	
985	Z	48	-	4	-	4	3	4	4	4	

Legend
see CPF Legend for details

2005

Σ
B # 220

RHENO.

WILLOW-BOWRON # 220 - 2005 PHENOLGY SURVEY									
16 CLONES - 32 TREES - FLAGGED RED (1997 SURVEY)									
9 Clones = 18 Trees = FLAGGED RED (1997 SURVEY)									
Clone No.	X	Y	Height	Width	Female Male				
1502	A	2	-4	4	Female	Male	Female	Male	Female
1475	F	8	-4	4	Female	Male	Female	Male	Female
1481	DD	5	-4	4	Female	Male	Female	Male	Female
1582	S	4	-4	3	Female	Male	Female	Male	Female
1482	A	9	-4	4	Female	Male	Female	Male	Female
1528	AA	8	-4	3	Female	Male	Female	Male	Female
1503	A	17	-4	4	Female	Male	Female	Male	Female
1503	O	21	-3	4	Female	Male	Female	Male	Female
1559	W	18	-3	4	Female	Male	Female	Male	Female
1587	O	21	-3	4	Female	Male	Female	Male	Female
1503	E	22	-3	4	Female	Male	Female	Male	Female
1531	J	22	-3	4	Female	Male	Female	Male	Female
1478	U	24	-3	4	Female	Male	Female	Male	Female
1592	R	25	-4	4	Female	Male	Female	Male	Female
1597	BB	27	-4	3	Female	Male	Female	Male	Female
1502	U	27	-4	4	Female	Male	Female	Male	Female
1598	U	26	-3	4	Female	Male	Female	Male	Female
1597	DD	30	-4	3	Female	Male	Female	Male	Female
1484	C	30	-4	3	Female	Male	Female	Male	Female
1597	BB	31	-3	4	Female	Male	Female	Male	Female
1587	BB	32	-3	4	Female	Male	Female	Male	Female
1557	Y	33	-4	3	Female	Male	Female	Male	Female
984	D	33	-3	4	Female	Male	Female	Male	Female
1557	Y	34	-4	4	Female	Male	Female	Male	Female
1475	C2	35	-4	3	Female	Male	Female	Male	Female
1488	F	36	-3	4	Female	Male	Female	Male	Female
1591	DD	36	-4	3	Female	Male	Female	Male	Female
1481	Q	43	-4	4	Female	Male	Female	Male	Female
1542	AA	43	-4	4	Female	Male	Female	Male	Female
1472	AA	44	-4	4	Female	Male	Female	Male	Female
985	B	45	-4	4	Female	Male	Female	Male	Female

25

WILLOW-BORROWN # 220 - 2005 PHENOLOGY SURVEY											
9 Clones = 18 Trees = FLAGGED RE D (1999 Survey)											
16 CLONES - 32 TREES - FLAGGED PINK "Designated Crossing" (1997/98 Survey)											
Clone No.	X	Y	Female Male								
1592 M	45	-	4	3	4						
980 Z	45	4	4	4							
1472 F	46	-	4	4	4	4	4	4	4	4	4
988 BB	46	3	4	4	4	4	4	4	4	4	4
1531 B	47	3	4	4	4	4	4	4	4	4	4
1598 C	47	4	4	4	4	4	4	4	4	4	4
980 D	47	4	4	4	4	4	4	4	4	4	4
1526 H	47	-	4	-	4	4	4	4	4	4	4
988 L	47	3	4	4	4	4	4	4	4	4	4
1559 BB	48	3	4	4	4	4	4	4	4	4	4
985 Z	48	3	4	4	4	4	4	4	4	4	4

LEGEND
See CPR Legend for details

MB #

220

PHENOL.

2006

good crop

WILLOW-BOWRON # 220 - 2006 PHENOLGY SURVEY									
Survey Date(s)		Willow 1		Willow 2		Willow 3		Willow 4	
Clone No	X	Female	Male	Female	Male	Female	Male	Female	Male
1502 A 2	- H	3	4	4	4	4	4	4	4
1597 J 2	- H	4	4	4	4	4	4	4	4
1582 S 4	- H	4	4	4	4	4	4	4	4
1597 R 5	- H	3	4	4	4	4	4	4	4
1481 DD 5	H Y	4	4	4	4	4	4	4	4
1475 F 8	- H	4	4	4	4	4	4	4	4
1528 CC 8	- H	4	4	4	4	4	4	4	4
1528 AA 9	- H	3	4	4	4	4	4	4	4
1479 F 15	H Y	4	4	4	4	4	4	4	4
1479 V 15	H Y	4	4	4	4	4	4	4	4
1503 Q 17	H H	4	4	4	4	4	4	4	4
1591 R 18	3	4	4	4	4	4	4	4	4
1559 W 18	3	4	4	4	4	4	4	4	4
1598 DD 19	3	4	4	4	4	4	4	4	4
1587 O 21	3	4	4	4	4	4	4	4	4
1503 E 22	3	4	4	4	4	4	4	4	4
1531 J 22	3	4	4	4	4	4	4	4	4
1478 U 24	H Y	4	4	4	4	4	4	4	4
984 F 24	- H	3	4	4	4	4	4	4	4
1587 S 23	3	4	4	4	4	4	4	4	4
1478 S 23	3	4	4	4	4	4	4	4	4
984 F 24	H Y	4	4	4	4	4	4	4	4
1478 U 24	H Y	4	4	4	4	4	4	4	4
1542 R 25	- H	3	4	4	4	4	4	4	4
1528 AA 25	3	4	4	4	4	4	4	4	4
1592 AA 26	- H	3	4	4	4	4	4	4	4
1502 U 27	- H	3	4	4	4	4	4	4	4
1484 C 30	3	4	4	4	4	4	4	4	4
1542 G 33	- H	3	4	4	4	4	4	4	4
1557 Y 33	- H	3	4	4	4	4	4	4	4
1557 Y 33	- H	3	4	4	4	4	4	4	4
1484 E 43	- H	3	4	4	4	4	4	4	4
1481 Q 43	- H	3	4	4	4	4	4	4	4
984 E 43	- H	3	4	4	4	4	4	4	4
1488 Y 42	3	4	4	4	4	4	4	4	4
1478 DD 41	4	4	4	4	4	4	4	4	4
1591 DD 36	3	4	4	4	4	4	4	4	4
1488 F 36	3	4	4	4	4	4	4	4	4
1475 CC 35	-	-	-	-	-	-	-	-	-
1472 G 34	-	-	-	-	-	-	-	-	-
1472 G 34	-	-	-	-	-	-	-	-	-
985 B 45	3	4	4	4	4	4	4	4	4

WILLOW-BOWRON # 220 - 2006 PHENOLGY SURVEY									
All 25 Clones = 50 trees surveyed for male/female flowers.									
Survey Date > May 29 June 1 June 7 June 8									
Clone No.	X	Y	Female Male						
1592 M 45	-	4	3 4	4 4	4 4	4 4	4 4	4 4	4 4
980 Z 45	3	4	4 4	4 4	4 4	4 4	4 4	4 4	4 4
988 F 46	-	4	3 4	4 4	4 4	4 4	4 4	4 4	4 4
988 BB 46	-	4	3 4	4 4	4 4	4 4	4 4	4 4	4 4
1531 B 47	3	4	4 4	4 4	4 4	4 4	4 4	4 4	4 4
1598 C 47	-	4	3 4	4 4	4 4	4 4	4 4	4 4	4 4
980 D 47	-	4	3 4	4 4	4 4	4 4	4 4	4 4	4 4
1526 H 47	-	4	3 4	4 4	4 4	4 4	4 4	4 4	4 4
988 L 47	-	4	3 4	4 4	4 4	4 4	4 4	4 4	4 4
1559 BB 48	3	4	4 4	4 4	4 4	4 4	4 4	4 4	4 4
985 Z 48	-	4	4 4	4 4	4 4	4 4	4 4	4 4	4 4
see CPF Legend for details									
LEGEND									

2007
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B #
2007

PHENOM.

WILLOW-BOWRON # 220 - 2007 PHENOLGY SURVEY									
16 CLONES - 32 TREES - FLAGGED PINK "Designated Crossing" (1997/98 Surveys)									
9 Clones = 18 Trees = FLAGGED RED (1998 Survey)									
All 25 Clones = 50 trees surveyed for male/female flowers.									
Clone No.	X	Y	Survey Date >	6-Jun-07	11-Jun-07	Female Male	Female Male	Female Male	Female Male
1502 A 2	4	4	4	4	4	Female Male	Female Male	Female Male	Female Male
1597 J 2	4	4							
1582 S 4	4	4							
1597 R 5	4	4							
1481 DD 5	4/5	4							
1475 F 8	4	4							
1582 CC 8	4	4							
1591 T 8	4	4							
1528 AA 9	3	4							
1526 A 14	3	4							
1479 F 15	4	4							
1479 V 15	4	4							
1484 DD 16	4	4							
1503 Q 17	4	4							
1559 W 18	4	4							
1598 DD 19	4	4							
1503 E 22	4	4							
1531 J 22	4	4							
1587 S 23	4	4							
984 F 24	4	4							
1542 R 25	4	4							
1528 AA 26	3	4							
1502 U 27	3	4							
1484 C 30	4	4							
1542 G 33	3	4							
1557 Y 33	4	4							
1557 F 34	4	4							

WILLOW-BOWRON # 220 - 2007 PHENOLGY SURVEY									
9 Clones = 18 Trees = FLAGGED RE D (1999 Survey)									
16 CLONES - 32 TREES - FLAGGED PINK "Designated Crossing" (1997/98 Surveys)									
All 25 Clones = 50 trees surveyed for male/female flowers.									
Clone No.	X	Y	Survey Date >	6-Jun-07	11-Jun-07	Female Male	Female Male	Female Male	Female Male
1472	G	34	4	4	4				
1475	CC	35	4	4					
1488	F	36	4	4					
1489	DD	36	4	4					
1478	DD	41	4	4					
1488	Y	42	4	4					
984	E	43	4	4					
1481	Q	43	4	4					
985	B	45	4	4					
1592	M	45	3	4	4				
980	Z	45	4	4					
1472	F	46	4	4					
988	BB	46	4	4					
1531	B	47	4	4					
1598	C	47	4	4					
980	D	47	4	4					
1526	H	47	4	4					
988	L	47	4	4					
1559	BB	48	4	4					
985	Z	48	4	4					

see CPF Legend for details

LEGEND

NB # 220
2007
PHENO.

2008 SURVEY -- 22 CLONES = 42 TREES SURVEYED = THREE CLONES NOT SURVEYED = HAVE NO FLOWERS						
Survey Date <>	X	Y	Female Male	Female Male	Female Male	Female Male
1502 A 2	-	4				
1526 A 14	-	4				
1531 A 27	4	4				
985 A 30	3	4				
985 A 36	4	4				
988 A 37	3	4				
1503 A 41	4	4				
984 A 45	3	4				
1472 A 46	4	4				
1472 B 1	-	4				
1531 B 47	4	4				
1528 B 3	3	4				
1472 B 47	4	4				
1542 C 5	3	4				
984 C 8	4	4				
1598 C 47	4	4				
1479 C 35	-	4				
1542 C 35	-	4				
984 C 48	4	4				
1488 F 36	4	4				
1479 F 15	4/5	4				
1598 D 1	4	4				
1528 DD 1	3	4				
980 DD 3	4	4				
1481 DD 5	4/5	4				
980 DD 15	4/5	4				
1598 DD 19	4	4				
1478 DD 20	4/5	4				
1557 DD 24	4	4				
1557 DD 30	4	4				
1557 DD 31	4	4				
1526 DD 35	3	4				
1591 DD 36	4	4				
1502 DD 37	3	4				
1592 DD 38	4	4				

WILLOW-BOWRON # 220 - 2008 PHENOLOGY SURVEY									
2008 SURVEY -- 22 CLONES = 42 TREES SURVEYED = THREE CLONES NOT SURVEYED = HAVE NO FLOWERS									
Clone No.	Survey Date <>	X	Y	Female	Male	Female	Male	Female	Male
1478	DD	41	4/5	4					
1479	DD	41	4/5	4					
1475	F	8	0						
1475	AA	25	0						
1472	M	45	0						
1475	CC	35	0						
1475	R	5	0						
1481	J	2	0						
1481	Q	43	0						

THREE CLONES NOT SURVEYED = NO FLOWERS

END

NB # 220 PHENO.

2009

WILLOW-BOWRON # 220 - 2009 PHENOLOGY SURVEY												
2009 SURVEY--- 24 CLONES = 47 TREES SURVEYED												
Survey Date>>		8-Jun-09		10-Jun-09								
Clone No.	X	Y	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
1472	B	1	-	4	4	4						
1488	H	1	-	4	4	4						
1479	M	1	4	4	4	4						
1591	O	1	4	4	4	4						
1559	S	1	-	4	4	4						
1587	W	1	4	4	4	4	only one clone					
1528	DD	1	-	4	3	4						
1502	A	2	-	4	3	4						
1597	J	2	4	4	4	4						
1528	B	3	-	4	3	4						
980	DD	3	4	4	4	4						
1542	C	5	-	4	3	4						
1481	DD	5	4	4	4	4						
984	C	8	4	4	4	4						
1475	F	8	4	4	4	4						
1582	CC	8	4	4	4	4						
1526	A	14	-	4	3	4						
1479	F	15	4	4	4	4						
980	DD	15	4	4	4	4						
1503	Q	17	4	4	4	4						
1598	DD	19	4	4	4	4						
1478	DD	20	4	4	4/5	4						
1557	DD	24	4	4	4	4						
985	A	27	-	4	4	4						
1531	A	30	-	4	4	4						
1597	DD	30	4	4	4	4						
1557	DD	31	4	4	4	4						
1542	C	35	-	4	3	4						
1475	CC	35	4	4	4	4						
1526	DD	35	-	4	3	4						
985	A	36	-	4	4	4						
1488	F	36	-	4	4	4						
1591	DD	36	4	4	4	4						

WILLOW-BOWRON # 220 -			2009 PHENOLOGY SURVEY											
2009 SURVEY--- 24 CLONES = 47 TREES SURVEYED														
Survey Date>>			8-Jun-09		10-Jun-09									
Clone No.	X	Y	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
988	A	37	-	4	4	4								
1502	DD	37	-	4	4	4								
1592	DD	38	-	4	4	4								
1503	A	41	4	4	4	4								
1478	DD	41	4	4	4	4								
1481	Q	43	4	4	4	4								
1472	A	45	-	4	4	4								
1592	M	45	4	4	4	4								
984	A	46	-	4	4	4								
1531	B	47	4	4	4	4								
1598	C	47	4	4	4	4								
988	L	47	4	4	4	4								
1582	G	48	4	4	4	4								
1559	BB	48	4	4	4	4								

LEGEND

FEMALE PHENOLOGY

- 3** Pre-Receptive Stage: When 20% of a ramet's flowers are at Stage 3
- 4** Receptive Stage: When 20% of a ramet's flowers are at pollination stage (lasts 3-4 days)
- Prior to Stage 3 rating: tree not receptive
- Past Stage 4 receptivity When 80% of a ramet's flowers are past receptivity

- 0** No females

MALE PHENOLOGY

- 4** Pollen flies when cluster tapped with hand on **SOUTH** side of tree.
- Pollen NOT flying, i.e. not yet developed.
- Pollen flight finished when cluster-tapping on **NORTH** side does not produce pollen.
- 0** No males
- 4/5** small amount of pollen left when shaken

107

WB # 207

PHENO

WILLOW-BROWN # 220 - 2010 PHENOLOGY SURVEY

2010 SURVEY--- 24 CLONES = 47 TREES SURVEYED

Prince George Tree Improvement Station

2010-08-11 11:22 AM

10f2

WILLOW-BOWRON # 220 - 2010 PHENOLOGY SURVEY									
Survey Date <>		26-May-10		31-May-10		2-Jun-10		7-Jun-10	
Clone No.	X	Y	Female	Male	Female	Male	Female	Male	Female
1472	B	1	-	-	3	4	4	4	4
1488	H	1	-	-	4	4	4	4	4
1479	M	1	3	4	4	4	5	4	4
1591	O	1	3	4	4	4	4	-	4
1559	S	1	-	4	3	4	4	5	-
1587	W	1	3	4	4	4	4	5	-
1502	DD	1	-	-	3	4	4	4	4
1528	A	2	-	-	3	4	4	4	4
1481	DD	5	-	4	3	4	4	4	4
1542	C	8	-	-	3	4	4	4	4
1526	CC	8	-	-	3	4	4	4	4
1475	F	8	-	-	4	3	4	4	4
984	C	8	-	4	3	4	4	4	4
1481	DD	5	-	4	3	4	4	4	4
1542	C	5	-	4	3	4	4	4	4
1528	B	3	-	-	4	4	4	4	4
980	DD	3	-	-	3	4	4	4	4
1503	Q	17	3	0	0	4	0	5	0
1598	DD	19	-	-	3	4	4	4	4
1478	DD	20	4	4	4	4	4	4	4
1557	DD	24	-	4	4	4	5	4	-
985	A	27	-	-	4	4	4	-	4
1557	DD	30	3	3	4	4	4	4	4
1531	A	30	-	-	3	4	4	4	4
1597	DD	31	-	-	3	4	4	4	4
1557	CC	35	-	-	4	4	4	4	4
1475	CC	35	-	-	4	4	4	5	4
985	A	36	-	-	4	4	4	5	-
1488	F	36	-	-	4	4	4	4	4
985	A	36	-	-	4	4	4	5	-
1526	DD	35	-	-	4	4	4	4	4
1591	DD	36	-	-	4	4	4	4	4

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WILLOW-BOWRON # 220 - 2010 PHENOLOGY SURVEY									
2010 SURVEY -- 24 CLONES = 47 TREES SURVEYED									
Clone No.	X	Y	Female	Male	Female	Male	Female	Male	Female
Survey Date <>	26-May-10	31-May-10	2-Jun-10	7-Jun-10	Female	Male	Female	Male	Female
988	A	37	3	4	4	-	-		
1502	DD	37	3	4	4	-			
1592	DD	38	4	4	4	4	4		
1503	A	41	4	4	4	4	-		
1478	DD	41	4	4	5	4	-		
1481	Q	43	4	4	5	4	-		
1472	A	45	4	4	4	4	5	4	
1592	M	45	3	4	4	4	5	4	
984	A	46	3	4	4	4	4		
1598	C	47	4	4	4	4	4		
988	L	47	3	4	4	4	5	-	
1582	G	48	4	4	4	4	5	-	
1559	BB	48	4	4	4	4	5	4	
FEMALE PHENOLOGY									
4	Pre-Receptive Stage:	When 20% of a ramet's flowers are at pollination stage (lasts 3-4 days)							
-	Prior to Stage 3 rating: tree not receptive								
-	Past Stage 4 receptivity When 80% of a ramet's flowers are past receptivity								
0	No females								
MALE PHENOLOGY									
4	Pollen flies when cluster tapped with hand on SOUTH side of tree.								
-	Pollen NOT flying, i.e. not yet developed.								
0	Pollen flies when cluster tapped when hand on NORTH side does not produce pollen.								
4/5	small amount of pollen left when shaken								

WBB # 220

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WILLOW-BOWRON # 220 - 2011 PHENOLOGY SURVEY

2010 SURVEY--- 24 CLONES = 47 TREES SURVEYED

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220

DIEGO

2012

Survey Date		11-Jun		Female		Male		Female		Male	
Clone No	X Y	Female	Male								
1472	A 45	4	4	-	-	-	-	-	-	-	-
1472	B 1	4	4	-	-	-	-	-	-	-	-
1475	CC 35	4	4	-	-	-	-	-	-	-	-
1475	F 8	4	4	-	-	-	-	-	-	-	-
1478	DD 20	-	-	-	-	-	-	-	-	-	-
1478	DD 41	-	-	-	-	-	-	-	-	-	-
1479	F 15	-	-	-	-	-	-	-	-	-	-
1479	M 1	-	-	-	-	-	-	-	-	-	-
1481	O 43	-	-	-	-	-	-	-	-	-	-
1481	DD 5	4	4	-	-	-	-	-	-	-	-
1488	H 1	-	-	-	-	-	-	-	-	-	-
1488	F 36	-	-	-	-	-	-	-	-	-	-
1488	A 14	4	4	-	-	-	-	-	-	-	-
1526	DD 35	4	4	-	-	-	-	-	-	-	-
1528	DD 1	4	4	-	-	-	-	-	-	-	-
1531	A 30	-	-	-	-	-	-	-	-	-	-
1531	B 47	4	4	-	-	-	-	-	-	-	-
1557	DD 31	-	-	-	-	-	-	-	-	-	-
1559	BB 48	4	4	-	-	-	-	-	-	-	-
1559	S 1	-	-	-	-	-	-	-	-	-	-
1587	W 1	4	4	-	-	-	-	-	-	-	-
1592	M 45	-	-	-	-	-	-	-	-	-	-
1592	DD 38	-	-	-	-	-	-	-	-	-	-
1597	DD 30	4	4	-	-	-	-	-	-	-	-
1597	J 2	-	-	-	-	-	-	-	-	-	-
1598	C 47	4	4	-	-	-	-	-	-	-	-
1598	add	-	-	-	-	-	-	-	-	-	-
1587	add	-	-	-	-	-	-	-	-	-	-
1484	add	-	-	-	-	-	-	-	-	-	-
1484	add	-	-	-	-	-	-	-	-	-	-
1502	add	-	-	-	-	-	-	-	-	-	-
1502	add	-	-	-	-	-	-	-	-	-	-
1598	add	-	-	-	-	-	-	-	-	-	-
1598	add	-	-	-	-	-	-	-	-	-	-

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