

Supplementary Table 1. Seedling infection types, stem rust and yellow rust field reactions at adult stage and presence of genes among 168 lines evaluated in the off seasons of 2019 and 2020 (OS2019, OS2020) and main season 2019 (MS2019) at KALRO Njoro.

Line	Parentage	Genes present	Seedling ITs		Stem rust resistance		Yellow rust resistance					
			<i>TTKTT</i>	<i>TTKSK</i>	Seasons		OS	OS 2019	MS 2019	MS	PBC	LTN
					OS 2019	MS 2019	OS 2020	OS 2019	MS 2019	MS 2020		
6001	Nord Desprez/VG9144//Kalyansona/Bluebird/3/ Yaco/4/Veery#5 (PBW343)		3+	3+	100S	100S	90S	0	30MS	30MS	0	0
6002	CACUKE #1		3+	3+	100S	100S	100S	0	40MS	40MS	1	0
6003	KINGBIRD #1	<i>Sr12, Sr2</i>	3	3-	20MS	10MS	5MS	0	10MS	15M	3	2
6004	BORL14//KFA/2*KACHU	<i>Sr8155B1</i>	3+	3+	40MSS	50MS	15MS	5MS	20MS	30MS	0	1
6005	VALK/3/KACHU #1/KIRITATI//KACHU	<i>Sr12, Sr2</i>	3+	3+	30MSS	10MS	5MS	1MS	5M	5RMR	2	0
6006	VALK/3/KACHU #1/KIRITATI//KACHU	-	3+	3+	30MSS	10MS	10MS	0	0	5M	3	1
6007	KUTZ//KFA/2*KACHU	<i>Sr12, Sr8155B1</i>	;13	3+	30MS	20M	10MS	0	20MS	20M	0	1
6008	KUTZ//KFA/2*KACHU	<i>Sr8155B1</i>	;13	3+	20MSS	20M	10MS	0	20MS	20M	0	1
6009	KUTZ//KFA/2*KACHU	<i>Sr12, Sr8155B1</i>	;13	3+	30MSS	20M	10MS	1MS	20MS	20MS	0	1
6010	BOKOTA//KFA/2*KACHU	<i>Sr12, Sr8155B1</i>	31	3+	40MSS	20MS	15M	5MS	15MS	30MS	1	1
6011	BOKOTA//KFA/2*KACHU	<i>Sr12, Sr8155B1</i>	31	3+	30MS	20M	15M	10MS	20MS	30M	0	2
6012	BOKOTA//KFA/2*KACHU	<i>Sr12,</i>	3	3+	100S	30M	40MS	5MS	10M	30M	0	1
6013	CHIPAK//KFA/2*KACHU	<i>Sr12, Sr8155B1</i>	31;	3+	90S	30M	30MS	20MS	5M	15MS	0	1
6014	KACHU//WBLL1*2/BRAMBLING/3/KACHU/ KIRITATI	<i>Sr12, Sr8155B1</i>	3;	3+	40MS	30M	10MS	5M	10M	10M	2	1
6015	SERI.1B*2/3/KAUZ*2/BOW//KAUZ/4/FAN COLIN #1/5/MUNAL/6/KACHU	<i>Sr12,</i>	3+	3+	60MSS	20MS	10MS	10M	10M	20M	3	1
6016	SERI.1B*2/3/KAUZ*2/BOW//KAUZ/4/FAN COLIN#1/5/MUNAL/6/KACHU	<i>Sr12, Sr2</i>	3+	2-	40MSS	50S	40MSS	10M	10MR	10M	2	1
6017	SERI.1B*2/3/KAUZ*2/BOW//KAUZ/4/FAN COLIN #1/5/MUNAL/6/KACHU	<i>Sr1, Sr2</i>	3+	3+	30MSS	50MSS	15MS	20M	10M	5MR	3	1
6018	WBLL1*2/VIVITSI//AKURI/3/WBLL1*2/BR AMBLING/4/KFA/2*KACHU	<i>Sr8155B1</i>	3	3+	40MSS	60S	15MS	20M	15MS	15MS	2	0
6019	ND643/2*TRCH//MUTUS/3/SUP152/4/KAC HU #1/KIRITATI//KACHU	<i>Sr12</i>	3+	3+	20MS	50S	10MS	20M	5M	5RMR	0	1
6020	ND643/2*TRCH//MUTUS/3/SUP152/4/KAC HU #1/KIRITATI//KACHU	<i>Sr12</i>	3+3	3+3	20M	20M	20M	30M	10M	10M	0	2
6021	BABAX/LR42//BABAX*2/3/KUKUNA/4/BA CEU #1/5/BECARD/6/KACHU/KINDE	<i>Sr12</i>	33+	3+	20MSS	30MSS	10M	5MS	0	5R	4	1
6022	PICUS/3/KAUZ*2/BOW//KAUZ/4/KKTS/5/ T.SPELTA PI348530/6/2*FRANCOLIN #1/7/KACHU/KIRITATI	<i>Sr12 Sr2</i>	2 / 3+	22-	30M	10M	5M	20MS	30MS	50MSS	2	2
6023	BABAX/LR42//BABAX/3/ER2000/4/KACH U #1/KIRITATI//KACHU	<i>Sr12</i>	3+	3+	40MSS	30M	20MS	5M	15MS	15M	1	1

6024	SLVS/ATTILA//WBLL1*2/3/GONDO/CBRD/4/BORL14	-	3+3	3+	40MSS	20MS	20MS	5M	10M	15M	3	1
6025	ROBIN	Sr12	3+	3+	100S	100S	100S	0	10RMR	10M	1	1
6026	SLVS/ATTILA//WBLL1*2/3/GONDO/CBRD/4/BORL14	Sr12	3+	3+	30MSS	30M	20M	1MS	5RMR	15MR	3	1
6027	SLVS/ATTILA//WBLL1*2/3/GONDO/CBRD/4/BORL14	Sr12	3+	3+	30MS	20RMR	15M	1MS	10M	30MS	3	1
6028	BAJ#1*2/3/ATTILA*2/PBW65//MURGA	Sr12, Sr2	3+	3+	40MSS	10MR	15M	30MS	30MS	40MS	0	2
6029	WBLL1*2/SHAMA//KACHU/3/SUP152*2/T ECUE #1/4/WBLL1/KUKUNA//TACUPETO F2001/3/BAJ #1	Sr12	3	3+	30MSS	50MS	20MS	20MS	15MR	20MR	1	1
6030	SAUAL/MUTUS//2*KACHU/KIRITATI	Sr12	33+	33+	15MSS	10MSS	10M	10MR	10MS	15M	3	1
6031	SAUAL/MUTUS//2*KACHU/KIRITATI	Sr12	3+	3+3	50MSS	40MSS	20MS	10MS	0	15M	1	2
6032	CIRO16*2/5/UP2338*2/VIVITSI/3/FRET2/ TUKURU//FRET2/4/MISR1	Sr12, Sr2	3+	3+	40MSS	20MS	20M	10M	20MS	30MS	4	1
6033	SAUAL/YANAC//SAUAL/3/2*KFA/2*KACHU	Sr12, Sr2, Sr8155B1	3+3	3+	40MSS	15M	20M	10M	20MS	20MS	0	0
6034	SAUAL/YANAC//SAUAL/3/2*KFA/2*KACHU	Sr12, Sr2, Sr8155B1	3	3+	30MSS	30MS	10M	20M	15MS	20M	0	1
6035	BOKOTA//BECARD/QUAIU #1/3/BOKOTA	Sr12	3+	3+3	50MSS	30M	15M	20MS	10MR	30M	3	1
6036	KSW/SAUAL//SAUAL/3/TRCH/HUIRIVIS#1 /5/UP2338*2/SHAMA/3/MILAN/KAUZ//CH IL/CHUM18/4/UP2338*2/SHAMA	Sr12, Sr2	31	33+	40MSS	20MS	5MS	5MR	0	5RMR	3	3
6037	KFA/2*KACHU*2/3/ATTILA*2/PBW65//MU RGA	Sr12, Sr2, Sr8155B1	31;	2+3	50M	20M	10M	15M	20MS	30M	1	2
6038	FRET2*2/SHAMA*2/4/BOW/URES//2*WEA VER/3/CROC_1/AE.SQUARROSA(213)//PGO /5/KFA/2*KACHU/6/FRET2*2/SHAMA//KA CHU	Sr2	31	3	50MSS	15M	10MS	40MS	20MS	40MS	2	0
6039	WBLL1*2/KURUKU//HEILO/3/KANCHAN*2 /JUCHI/4/PARUS/FRANCOLIN #1	Sr2	3+	3+	60S	30M	10M	1MR	0	5R	3	1
6040	BORL14*2//KFA/2*KACHU	Sr12, Sr8155B1	3+	3+	70S	20MS	20MS	30M	30MS	30MS	2	1
6041	BORL14*2//KFA/2*KACHU	Sr2, Sr8155B1	3	3+	70S	50MSS	20M	5MR	10MS	5M	3	2
6042	BORL14*2//KFA/2*KACHU	Sr12, Sr8155B1	31;	3+	60S	40MSS	20M	5M	10M	5RMR	3	1
6043	BORL14*2//KFA/2*KACHU	Sr12, Sr8155B1	33+	3+3	50MS	30MSS	20MS	5MR	0	5R	3	1
6044	BORL14*2/7/MUU/5/WBLL1*2/4/YACO/P BW65/3/KAUZ*2/TRAP//KAUZ/6/WBLL1* 2/SHAMA	Sr12, Sr8155B1	3+	3+	40MSS	20M	20M	1MR	15M	30MS	2	2
6045	PRL/2*PASTOR*2//FH617/3/2*ATTILA*2/ PBW65//MURGA	Sr12, Sr2, Sr8155B1	2	2	20MS	15M	10M	20MS	10M	20M	1	2
6046	KANCHAN*2/JUCHI//2*BORL14	Sr12, Sr8155B1	33+	3+3	20MS	10M	10M	0	5R	0	2	1
6047	TILILA/TUKURU/4/SERI.1B*2/3/KAUZ*2/B OW//KAUZ/5/KFA/2*KACHU/6/TILILA/JUC HI/4/SERI.1B//KAUZ/HEVO/3/AMAD	Sr2, Sr8155B1	3+3	33+	40S	60S	20MS	0	5MR	1R	2	1

6048	WBLL1/FRET2//PASTOR*2/3/MURGA/6/K SW/5/2*ALTAR84/AE.SQUARROSA(221)//3 *BORL95/3/URES/JUN//KAUZ/4/WBLL1/7 /KFA/2*KACHU	<i>Sr12, Sr2, Sr8155B1</i>	3	3+3	40MSS	30MSS	20MS	20MS	15MS	20MS	1	1
6049	KUTZ*2//KFA/2*KACHU	<i>Sr12, Sr2</i>	3	3	30MSS	20MSS	30MS	5MS	10MR	20M	1	1
6050	ROBIN	<i>Sr12</i>	3+	3+	100S	100S	100S	0	10MR	10M	1	1
6051	SUP152/VILLAJUAREZF2009/3/2*ATTILA*2 /PBW65//MURGA	<i>Sr12, Sr2</i>	32+	32+	50MS	15MR	10M	15MS	10MS	30M	1	1
6052	SUP152/VILLAJUAREZF2009/3/2*ATTILA*2 /PBW65//MURGA	<i>Sr12, Sr2</i>	2+3	3	60M	15MR	10M	30MS	20M	20MS	0	1
6053	SUP152/VILLAJUAREZF2009/3/2*ATTILA*2 /PBW65//MURGA	<i>Sr2</i>	3+	3+3	60MSS	60MSS	40MS	5MS	0	0	1	0
6054	KACHU/KINDE*2//KACHU/KIRITATI	<i>Sr12, Sr2</i>	3+3	2+3	40MSS	30MSS	30MS	0	0	0	0	0
6055	MUU/KBIRD//2*KACHU/KIRITATI	<i>Sr12, Sr2</i>	3+	3+	60MSS	50MSS	15M	20MS	10M	5MR	1	1
6056	MUU/KBIRD//2*KACHU/KIRITATI	<i>Sr12, Sr2, Sr8155B1</i>	3+	3+	60MSS	50MS	10MS	20MS	15MS	20MS	0	0
6057	MUU/KBIRD//2*KACHU/KIRITATI	<i>Sr12, Sr2, Sr8155B1</i>	33+	3+	50MSS	30M	15M	20MS	15M	20M	1	2
6058	SITE/MO//PASTOR/3/TILHI/4/MUNAL#1/ 5/MUNAL*2/6/MUCUY	<i>Sr12</i>	3+	3+	50MSS	20M	20MS	20M	30MS	30MS	2	1
6059	FRET2/TUKURU//FRET2/3/MUNAL#1/4/P BW343*2/KUKUNA*2//FRTL/PIFED/5/FRE T2/TUKURU//FRET2/3/MUNAL #1	<i>Sr12</i>	3	33+	20MS	20MR	15MS	30M	15MS	20MS	2	2
6060	WBLL1*2/BRAMBLING//VORB/FISCAL/3/B ECARD/4/MUCUY/5/MUCUY	<i>Sr12, Sr2, Sr8155B1</i>	3+3	3+	60MSS	30MSS	40MSS	5M	20MS	20MS	1	1
6061	HUIRIVIS#1/MUU//WBLL1*2/BRAMBLING/ 3/TRCH/HUIRIVIS #1/4/HUIRIVIS#1/MUU//WBLL1*2/BRAMB LING	<i>Sr12, Sr2</i>	33+	3+3	30MSS	10M	15M	10MR	10MR	15M	2	2
6062	MERCATO/BECARD//BOKOTA	<i>Sr12, Sr2</i>	3+	3+	70S	40M	40MS	0	0	0	1	2
6063	SW895124*2/FASAN/3/ALTAR84/AE.SQ//2 *OPATA/4/TAMMARIN ROCK/5/BORL14	<i>Sr12</i>	3+3	3+	80S	20M	30MS	60S	50MS	50MS	1	2
6064	ATTILA*2/PBW65*2//MURGA/3/KACHU/KI RITATI	<i>Sr12, Sr8155B1</i>	3	3+	70S	30M	20M	20M	30MS	50MS	1	1
6065	ATTILA*2/PBW65*2//MURGA/3/KACHU/KI RITATI	<i>Sr12, Sr2, Sr8155B1</i>	3+3	3+	50MSS	30MSS	15MS	15M	15MS	15MS	2	0
6066	ATTILA*2/PBW65*2//MURGA/3/KACHU/KI RITATI	<i>Sr12, Sr2, Sr8155B1</i>	3	3+	50MSS	30M	15MS	10M	15MS	20MS	0	0
6067	WBLL1*2/CHAPIO*2//MURGA/3/MUTUS/A KURI	<i>Sr12</i>	3	3+3	30MS	30MSS	10M	0	0	0	2	2
6068	ALTAR84/AE.SQUARROSA(221)//3*BORL95 /3/URES/JUN//KAUZ/4/WBLL1/5/MUTUS/ 6/SUP152/BAJ #1	<i>Sr12</i>	2+3-	32+	30MSS	15M	15M	0	5M	5RMR	3	1

6069	ALTAR84/AE.SQUARROSA(221)//3*BORL95/3/URES/JUN//KAUZ/4/WBLL1/5/MUTUS/6/SUP152/BAJ #1	Sr12	3+3	23-	20M	5M	10MS	20M	10MR	15M	2	2
6070	ALTAR 84/AE.SQUARROSA (221)//3*BORL95/3/URES/JUN//KZ/4/WBLL1/5/MUTUS/6/SUP152/BAJ #1	Sr2	33+/2-	23-	30M	10MR	10MS	10M	5MR	5RMR	1	1
6071	ALTAR84/AE.SQUARROSA(221)//3*BORL95/3/URES/JUN//KAUZ/4/WBLL1/5/MUTUS/6/SUP152/BAJ #1	Sr12	3+	3	50M	10M	10MS	20M	10MR	10M	1	1
6072	ITP40/AKURI//FRNCLN*2/TECUE #1	Sr12	3	33+	60MSS	30M	20MS	0	0	5R	1	2
6073	FRET2*2/BRAMBLING/3/FRET2/WBLL1//T ACUPETO	Sr12	3+	3+3	30MSS	15M	10MS	15M	15M	20M	3	1
6074	F2001/4/WBLL1*2/BRAMBLING/5/BAJ#1/3/KIRITATI//ATTILA*2/PASTOR	Sr12	3+3	3+	30MSS	20MR	20MS	20M	15MR	15M	3	1
	FRET2*2/BRAMBLING/3/FRET2/WBLL1//T ACUPETO											
	F2001/4/WBLL1*2/BRAMBLING/5/BAJ #1/3/KIRITATI//ATTILA*2/PASTOR											
6075	ROBIN	Sr12	3+	3+	100S	100S	100S	0	10RMR	10M	1	1
6076	FRNCLN*2/TECUE #1//TRCH/HUIRIVIS #1	Sr12, Sr2	3	33+	70S	60S	40MS	0	0	0	2	2
6077	MUCUY/3/PBW343*2/KUKUNA*2//FRTL/P IFED	Sr2	3+3	33+	15MSS	5MR	10MS	0	10M	15RMR	3	1
6078	KACHU/KINDE//SUP152/BAJ #1	-	3+	3+	40M	30MS	10M	1MR	10M	5MR	2	2
6079	ATTILA/3*BCN*2//BAV92/3/KIRITATI/WBLL1/4/DANPHE/5/BORL14	Sr12, Sr2	3+	3+	50MSS	30MSS	15M	15M	10M	20M	2	3
6080	ATTILA/3*BCN*2//BAV92/3/KIRITATI/WBLL1/4/DANPHE/5/BORL14	Sr12	3+	3+	50MSS	40MSS	20MS	5MR	0	5MR	1	1
6081	KIDEA/4/BAJ#1/3/KIRITATI//ATTILA*2/P ASTOR	Sr2	;1	3+3	60MSS	20MR	15M	30M	50MS	50MS	2	1
6082	MUTUS*2/TECUE#1/4/FRET2/TUKURU//FRET2/3/MUNAL #1	Sr12, Sr2	33+	3	30MSS	5RMR	20MS	5M	30MS	30MS	2	0
6083	CHRZ//BOW/CROW/3/WBLL1/4/CROC_1/AE.SQUARROSA (213)//PGO/5/BORL14	Sr12	33+	3	30MS	20MSS	20M	10MR	10M	10M	2	0
6084	FRET2/KUKUNA//FRET2/3/PARUS/4/FRET2*2/SHAMA*2/5/PBW343*2/KUKUNA*2//FRTL/PIFED	Sr12	3+3	33+	60MSS	15M	5M	1MR	20MS	40M	3	1
6085	ATTILA*2/PBW65//MURGA*2/3/KFA/2*KACHU	Sr12, Sr2	3+	3+	40MSS	15M	15M	10MR	15MS	15M	0	0
6086	BORL14*2/FITIS	Sr12	3+	3+	70S	20MS	20MS	0	20MS	30M	2	1
6087	BORL14*2//KFA/2*KACHU	Sr12, Sr8155B1	3+	3+	60MSS	60MSS	20MS	10MS	0	5M	1	1
6088	BORL14*2//KFA/2*KACHU	Sr12, Sr8155B1	3	3+3	40MSS	60S	20MS	5MR	0	5MS	2	0
6089	COPIO*2/MUCUY	Sr12	3+	3+	40MSS	30MSS	15MS	0	0	5R	2	0
6090	KUTZ*2//KFA/2*KACHU	Sr12, Sr2, Sr8155B1	;13-/ 3+	33+	60MSS	50MSS	15M	0	5M	5MR	0	1
6091	WBLL1/4/BOW/NKT//CBRD/3/CBRD/5/WBLL1*2/TUKURU*2/6/KACHU #1/KIRITATI//KACHU	Sr12, Sr2	3+3	3+	30MS	30MSS	20MS	10M	5MS	0	2	2
6092	SAUAL/3/ACHTAR*3//KANZ/KS8584/4/SAUAL*2/5/MUTUS/ROLF07	Sr12, Sr2	33+	3+	20MSS	30MSS	30MS	0	0	0	1	1

6093	WBLL1*2/BRAMBLING/4/BABAX/LR42//B ABAX*2/3/SHAMA*2/5/KFA/2*KACHU	<i>Sr12, Sr8155B1</i>	2+3	2+	80S	100S	70MSS	0	5MR	5R	3	1
6094	CHIPAK*2//KFA/2*KACHU	<i>Sr2, Sr8155B1</i>	3+	3+	80S	70S	40MS	1MR	15M	10M	0	1
6095	GAN/AE.SQUARROSA(408)//2*OASIS/5*BO RL95/3/TACUPETOF2001*2/BRAMBLING/4 /2*KFA/2*KACHU	<i>Sr2, Sr8155B1</i>	3	3+3	30MSS	20MSS	10M	5MR	20MS	20M	0	2
6096	KACHU//WBLL1*2/BRAMBLING*2/3/KACH U/KIRITATI	<i>Sr12</i>	3	33+	60S	30MSS	30M	0	5MR	10M	1	2
6097	WBLL1*2/KURUKU//SUP152*2/3/KSW/SA UAL//SAUAL	<i>Sr12, Sr2, Sr8155B1</i>	3-	3+	30MSS	20M	10MS	20MS	0	10M	0	1
6098	ATTILA/3*BCN//BAV92/3/TILHI/4/SUP15 2/5/SUP152/6/KFA/2*KACHU/7/ATTILA/3 *BCN//BAV92/3/PASTOR/4/TACUPETOF20 01*2/BRAMBLING/5/PAURAQ	<i>Sr12</i>	3+	3+	30MSS	20M	15M	20M	10MS	20M	2	1
6099	SERI.1B*2/3/KAUZ*2/BOW//KAUZ*2/4/KI NGBIRD #1/5/KACHU/KINDE/6/SHORTENEDSR26T RANSLOCATION//WBLL1*2/BRAMBLING/3 /VILLA JUAREZF2009	<i>Sr12, Sr8155B1</i>	3	3+	30TMS	30M	15M	15M	10M	15M	3	1
6100	ROBIN	<i>Sr12</i>	3+	3+	100S	100S	100S	0	10RMR	10M	1	1
6101	MUCUY//STLN/MUNAL #1/3/MUCUY	<i>Sr2</i>	3+3	3	30MSS	30MS	15MS	0	0	0	0	1
6102	BECARD#1/5/KIRITATI/4/2*SERI.1B*2/3/ KAUZ*2/BOW//KAUZ*2/6/KFA/2*KACHU	<i>Sr12, Sr2, Sr8155B1</i>	3+3	3+	30M	30MSS	10M	5M	5M	10M	0	1
6103	BABAX/LR42//BABAX*2/3/KUKUNA/4/BA CEU#1/5/BECARD/6/KACHU/KINDE/7/BA BAX/LR42//BABAX*2/3/KUKUNA/4/CROS BILL #1/5/BECARD	<i>Sr12</i>	3+	3+	70MSS	50S	20M	40M	5MR	10MR	3	1
6104	KACHU#1//WBLL1*2/KUKUNA/3/BRBT1*2 /KIRITATI/6/ROLF07*2/5/REH/HARE//2* BCN/3/CROC_1/AE.SQUARROSA(213)//PGO /4/HUITES/7/BORL14	<i>Sr12</i>	3+	3+	20MS	15M	20M	5M	5MR	5RMR	1	1
6105	CHNZ//BOW/CROW/3/WBLL1/4/CROC_1/ AE.SQUARROSA(213)//PGO*2/5/KUTZ	<i>Sr12</i>	33+	3+	30MSS	40MSS	40MSS	0	0	0	3	1
6106	SOKOLL//INQALAB91*2/KUKUNA*2/4/ATT ILA*2/PBW65//MUU #1/3/FRANCOLIN #1	<i>Sr12, Sr8155B1</i>	33+	3+	30MS	30M	10M	20MS	40MS	40MS	1	2
6107	KUTZ//KACHU/DANPHE	<i>Sr2</i>	3+	3+	30MS	40MSS	15MS	0	0	0	1	0
6108	KUTZ//KACHU/DANPHE	<i>Sr12, Sr2</i>	3+	3+	30MSS	30MSS	30MS	0	0	0	1	1
6109	ATTILA/3*BCN*2//BAV92/3/KIRITATI/WB LL1/4/DANPHE/5/TAITA	<i>Sr12</i>	3+	3+	15MSS	15MS	10M	0	0	5RMR	3	2
6110	SAUAL/3/ACHTAR*3//KANZ/KS8584/4/SA UAL/5/2*BAJ#1/3/KIRITATI//ATTILA*2/P ASTOR	<i>Sr12</i>	3+3	3+	20M	10M	5M	0	0	0	2	1
6111	KIRITATI/WBLL1//FRANCOLIN#1*2/3/PB W343*2/KUKUNA//TECUE #1	-	3+	33+	15MS	20M	10M	20MS	20MS	20MS	2	2
6112	MUTUS*2/TECUE#1/3/2*KACHU#1/KIRITA TI//KACHU	<i>Sr12</i>	3+	3+3	40MSS	15MS	10M	30M	15M	20MS	3	0
6113	WBLL1*2/VIVITSI//AKURI/3/WBLL1*2/BR AMBLING*2/4/PBW343*2/KUKUNA*2//FR TL/PIFED	<i>Sr12</i>	3+	3+	50MSS	40MSS	20M	30M	0	20MS	2	1

6114	MEX94.27.1.20/3/SOKOLL//ATTILA/3*BCN /4/2*SUP152*2/TECUE #1	Sr12	2+	22+	30MS	30M	5M	0	0	0	1	1
6115	BORL14//KACHU/KIRITATI	Sr12	33+	3+3	30MS	30MS	20MS	20MS	5MR	0	0	2
6116	KACHU/DANPHE//MUNAL #1	Sr12	3+3	33+	60M	60MSS	30M	30M	10M	10MR	1	1
6117	KACHU/DANPHE//BORL14	Sr12	3+3	3	30MSS	50MS	20MS	0	0	0	2	1
6118	KACHU/DANPHE//KFA/2*KACHU	Sr8155B1	3+3	3	30MS	30M	20MS	5MR	0	0	0	1
6119	KACHU/DANPHE//KFA/2*KACHU	Sr12, Sr8155B1	33+	3+	40MSS	30MSS	10MS	5MR	0	10MS	0	1
6120	KACHU/DANPHE//KENYA SUNBIRD/KACHU	Sr12	22-	2-	30M	40M	20MS	30M	10MR	20MS	2	1
6121	KACHU//KIRITATI/2*TRCH/3/KACHU#1/KI RITATI//KACHU	Sr12	3+	3+	30MSS	40M	30MS	20MR	10MR	10MR	1	1
6122	KACHU//KIRITATI/2*TRCH/3/KFA/2*KACH U	Sr12, Sr8155B1	3-	3+	30MSS	30M	20MS	5MR	0	5R	2	2
6123	KACHU//KIRITATI/2*TRCH/3/KFA/2*KACH U	-	3	3+	30MS	40MSS	40MS	20MS	5M	5MS	0	0
6124	KACHU//KIRITATI/2*TRCH/3/KFA/2*KACH U	Sr12, Sr8155B1	3+3	3+	40M	15M	10M	40MS	30MS	30MS	0	0
6125	ROBIN	Sr12	3+	3+	100S	100S	100S	0	10RMR	10M	1	1
6126	KACHU//KIRITATI/2*TRCH/3/KFA/2*KACH U	Sr12, Sr8155B1	33-1	33+	30M	20M	10MS	10M	15MS	10M	0	1
6127	ND643/2*WBLL1/4/WHEAR/KUKUNA/3/C 80.1/3*BATAVIA//2*WBLL1/5/BORL14	Sr12	3+3	3	60M	30MSS	20MS	20M	5M	15M	0	1
6128	KENYASUNBIRD/KACHU//BORL14	Sr12	3+	2	30MSS	30M	50MSS	30M	15MS	20MS	1	1
6129	KENYASUNBIRD/KACHU//KIDEA	Sr12	3	2	30M	50S	50S	0	5R	5R	1	1
6130	ATTILA*2/PBW65//FRNCLN/3/FRANCOLIN #1/4/BORL14	-	3+	3	60M	20MS	10MS	10M	30MS	20MS	1	2
6131	MUTUS*2/CHONTE//SUP152/BAJ #1	Sr12, Sr2	3+	3+3	30MS	20M	20MS	30MS	10M	15M	1	1
6132	WBLL1*2/BRAMBLING*2//BAVIS/3/MISR 1	-	2-	2-	10RMR	10M	10M	20M	15MS	20MS	1	0
6133	WBLL1*2/BRAMBLING*2//BAVIS/3/MISR 1	Sr12	2-	2-	10M	5RMR	5MR	0	5M	5MR	2	1
6134	WBLL1*2/BRAMBLING*2//BAVIS/3/KACHU #1/KIRITATI//KACHU	-	3+	3+	30M	20MSS	10M	0	1R	5RMR	3	1
6135	WBLL1*2/BRAMBLING*2//BAVIS/3/KFA/2 *KACHU	Sr8155B1	12-	2-	15RMR	10MR	10MS	5MS	0	0	1	2
6136	WBLL1*2/BRAMBLING*2//BAVIS/3/KFA/2 *KACHU	Sr12	2+	2	15M	5RMR	10M	0	5MR	5M	3	1
6137	SWSR22T.B./2*BLOUK #1//WBLL1*2/KURUKU/3/MISR 11	Sr13	3+	33+	30MSS	20MSS	10MS	30MS	0	0	2	1
6138	KIRITATI/2*WBLL1/3/TAM200/PASTOR// TOBA97/4/VILLAJUAREZF2009/5/BORL14	Sr14	3+	3+	40M	30M	15M	40M	20MS	40MS	1	2
6139	SOKOLL/3/PASTOR//HXL7573/2*BAU/4/P ARUS/PASTOR/5/BORL14	Sr12, Sr8155B1	3+	3+/22+	30MS	30MSS	50S	0	5M	5RMR	1	2
6140	KACHU*2/3/ND643//2*PRL/2*PASTOR/4/ KACHU//KIRITATI/2*TRCH	Sr12	3+3	2+ / 3	30M	20MSS	20M	20M	15M	20M	2	2
6141	KFA/2*KACHU*2//MUTUS*2/CHONTE	Sr12, Sr8155B1	33+	3	70S	20MSS	15M	30M	20MS	20M	1	2
6142	KFA/2*KACHU*2//MUTUS*2/CHONTE	Sr12, Sr8155B1	3+	3+	80S	30MSS	20M	10M	5MR	5MR	3	2

6143	KFA/2*KACHU*2//MUTUS*2/CHONTE	<i>Sr12, Sr8155B1</i>	3+3	3+	60MSS	50MSS	20MS	20M	1M	10MS	0	1
6144	KFA/2*KACHU*2/3/PAKHW*2//KIRITATI /2*TRCH	<i>Sr12, SR8155B4</i>	3	3	40MSS	20MSS	10MS	5MR	5MS	10MS	0	3
6145	KFA/2*KACHU*2/3/PAKHW*2//KIRITATI /2*TRCH	<i>Sr12, SR8155B5</i>	3	3+	30MSS	20MSS	10MS	30M	15M	20MS	0	1
6146	KACHU #1/3/T.DICOCCON PI94624/AE.SQUARROSA (409)//BCN/4/2*KACHU*2/5/KACHU/DAN PHE	-	3+	3+	30M	20M	20MS	5MR	10MR	5RMR	1	0
6147	KACHU#1/3/T.DICOCCON PI94624/AE.SQUARROSA (409)//BCN/4/2*KACHU*2/5/KACHU/DAN PHE	<i>Sr12</i>	3+	3+3	30MS	50MS	20MS	0	5M	5RMR	0	0
6148	KASUKO	<i>Sr12</i>	;13-	3+	30MSS	30MSS	15M	1MR	5M	20M	0	0
6149	KASUKO	<i>Sr12</i>	;13-	3+	30MSS	15MS	10M	15MR	20MS	20M	1	1
6150	ROBIN	<i>Sr12</i>	3+	3+	100S	100S	100S	0	10RMR	10M	1	1
6151	KASUKO	-	3;	3+	60M	30M	10MS	30M	20MS	30MS	1	1
6152	KASUKO	-	;13-	3+	70MSS	30M	15MS	20M	10MR	20M	0	1
6153	KASUKO	<i>Sr12</i>	;13-	3+	70MSS	50MSS	20M	30M	10MR	15MR	1	1
6154	KASUKO	<i>Sr12</i>	13-;	3+	80S	50MSS	20MS	10M	10MR	15M	2	1
6155	KASUKO	-	31;	3+	30MS	30MSS	20M	20MS	30M	30MS	2	1
6156	KASUKO	<i>Sr12</i>	;13-/ 2-	3	70MSS	30M	15M	20MS	20MR	30M	2	1
6157	KASUKO	-	;13-	3	60S	40MSS	30M	30M	20M	20MS	2	2
6158	KASUKO	<i>Sr12</i>	;13-	3+	50MSS	30M	5MS	40M	20MS	30M	1	1
6159	KASUKO	-	3+	3+3	80S	20M	20M	40MS	30MS	50MS	1	1
6160	KENYASUNBIRD/KACHU//KACHU/KIRITATI	<i>Sr12</i>	3+	2	20M	10M	20MS	30M	10M	5RMR	0	1
6161	KACHU*2/3/ND643//2*PRL/2*PASTOR/4/ KACHU/DANPHE	<i>Sr12</i>	22+	2+	30M	20M	15MS	40MS	15M	5M	0	1
6162	WHEAR/KUKUNA/3/C80.1/3*BATAVIA//2* WBLL1*2/4/NIINI #1/5/KFA/2*KACHU	-	3	3+3	30M	10M	10M	15M	40MS	40MS	1	2
6163	FRNCLN//KIRITATI/2*TRCH/3/FRNCLN/4/ SWSR22T.B./2*BL0UK#1//WBLL1*2/KURU KU	<i>Sr12</i>	2-	2-	15RMR	10RMR	5MR	0	0	0	1	1
6164	FRNCLN//KIRITATI/2*TRCH/3/FRNCLN/4/ SWSR22T.B./2*BL0UK#1//WBLL1*2/KURU KU	<i>Sr12</i>	2-	2-	10M	10RMR	10MR	0	0	5R	1	1
6165	MUNAL//WBLL1*2/BRAMBLING*2/3/KACH U/DANPHE	<i>Sr12</i>	3	3	30MSS	20MS	10MS	0	1R	0	2	1
6166	BECARD/3/PASTOR//MUNIA/ALTAR84*2/ 4/KACHU/DANPHE	<i>Sr12</i>	3+3	3+	60S	60MSS	40MS	10M	0	10MR	0	1
6167	KENYASUNBIRD/KACHU*2//BORL14	<i>Sr12</i>	33+	2	15MS	30M	30MS	10MR	10MR	15M	1	1
6168	KENYASUNBIRD/KACHU*2//BORL14	<i>Sr12</i>	3+3	22-	30MSS	20M	20MS	10M	15M	15M	0	2