

Some Characters of Varieties released within the Past Seven years By Guyana Rice Development Board

Characters	GRDB 9 (G04-08)	GRDB 10 (FG05-259)	GRDB 11 (FG06-98)	GRDB 12 (FG07-35)	GRDB 13 (G07-08)	“GRDB 14” (FG06-123)
Seedling Vegetative Vigour(Vg)	Extra Vigorous	Extra Vigorous	Extra Vigorous	Extra Vigorous	Extra vigorous	Vigorous
Tillering Ability (Ti)	Very High	Very High	Very High	Very High	Low (direct seeded)	Medium(10-19)
Culm Strength (Cs)	Strong	Strong	Strong	Strong	Strong	Strong
Lodging Incidence (Lg) (%)	0-5	10-20	0-5	0-5	0	0-10 (%)
Plant Height (Ht)	Semi dwarf (100.75)	Semi dwarf (106.15)	Intermediate (110.66)	Intermediate (111.45)	Intermediate	Semi dwarf (100-110 cm)
Leaf Senescence (Sen)	Late and Slow	Intermediate	Late and Slow	Late and Slow	Late and slow	Late and slow
Panicle Exsertion (Exs)	Well Exerted	Well Exerted	Well Exerted	Well Exerted	Well exerted	Well exerted
Panicle Treshability (PT)	Easy	Easy	Easy	Easy	Easy	Easy
Spikelet Fertility (SpFert)	Highly Fertile	Highly Fertile	Highly Fertile	Highly Fertile	Highly fertile	Highly fertile
Awning (An)	Awnless	Awnless	Partial	Partial	partly awned	Awnless
Lemma and Palea color (MPC) [Grain Color]	Gold	Straw	Straw	Straw	Gold furrows on straw background	Straw
Daysto complete Flowering	80-85	85-90	85-90	80-85	85-86	78-85
Dormancy (Days)	32	21	24	24	24	25
Maturity (Mat)	113-118	106-112	114-118	112-116	115-120	115-120
Grain Yield (bag/ac, t/ha)	40-45 (6.5-7t/ha)	40-45(6.8-7t/ha)	40-45 (6.3-7t/ha)	40-45(6.3-7t/ha)	35-45 (5.5-7.1 t/ha)	38-48 bags/ac
Disease						
Blast (<i>Pyriculariagrisea</i>)	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant
Brownspot	Tolerant	Tolerant	Tolerant	Tolerant	Mod. Resistant	Tolerant
Sheath Blight	Tolerant	Tolerant	Tolerant	Tolerant	Mod. Resistant	Tolerant
Sheath Rot	Tolerant	Tolerant	Tolerant	Tolerant	Mod. Resistant	Tolerant
Grain						
Grain Length (GrL) (mm)	9.12	10.07	10.081	10.062	11.2	9.9 (mm)
Grain Width (GrW) (mm)	3.01	2.58	2.502	2.502	2.5	2.3 (mm)
Grain Shape (GrS)	Slender	Slender	Slender	Slender	Slender	Long, slender
Brown Rice Length (BrLn) (mm)	7.85	8.24	7.242	7.226	8.6	7.7 (mm)
Brown Rice Width (BrW) (mm)	2.31	2.22	2.233	2.233	2.1	2.1 (mm)
Brown Rice Shape (BrS)	Slender	Slender	Slender	Slender	Slender	slender
1000 Grain Weight(GW) (g)	31.6	30.3	27.885	29.132	28.66	29.4 (%)
Chalkiness (Clk) (%)	0.84	1.63	0.02	0.03	0.9	0.2 (%)
Head Rice Recovery(HRR)-Paddy (%)	59.92	60.49	61.5	64.2	50.1	50.75 (%)
Total Rice Recovery(TRR)-Paddy (%)	71.22	68.45	52.4	53.6	65.5	66.50 (%)
Head RiceRecovery(HRR)-Brown (%)	76.63	77.55	81.7	84.7	66.5	54.9 (%)
Total Rice Recovery(TRR)-Brown (%)	86.37	86.38	68.2	70.7	86.4	83.3 (%)
Grain Expansion- Length (GEL) (%)	44.81	36.73	47.25	54.44	72.8	72.6 (%)
Grain Expansion- Width (GEW) (%)	47.15	45.18	56.04	42.45	68.5	72.4 (%)



GUYANA RICE DEVELOPMENT BOARD

BURMA RICE RESEARCH STATION
RICE BREEDING

PROGRAMME IN GUYANA

OBJECTIVES

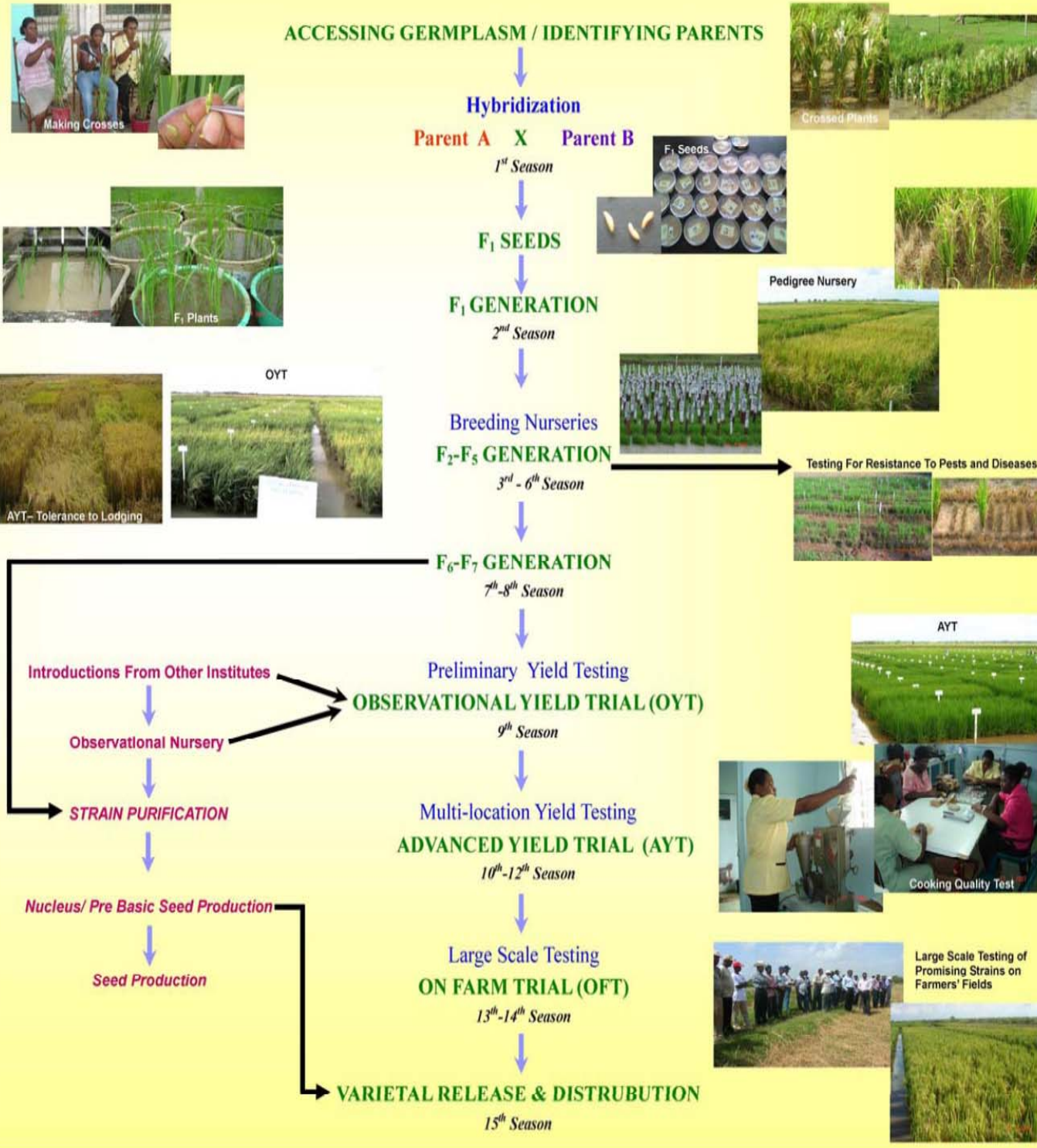
Objectives of the rice breeding programme are to:

- A. Increase the yield potential of local varieties
Developing rice varieties with:
 - I. High yield potential.
 - Short term (2009) 6.5-7t/ha (38-45 bags/ac).
 - Medium term (2012) 7-7.5 t/ha (45-48 bags/ac)
 - Long term (2015+) 8-9.5 t/ha (50-60 bags/ac)
 - II. Tolerance to lodging.
 - III. Stable resistance to blast.
 - IV. High milling (HRR 55/TRR 70).
 - V. Excellent cooking qualities.
- B. Evolve varieties of different grain types.
- C. Develop varieties with tolerance to saline conditions.
- D. Develop aromatic varieties.
- E. Maintain genetic purity of commercial varieties and production of sufficient quantity of seeds of high genetic purity (maintenance breeding).
- F. Decentralize Seed Production – off station seed production.



SCHEMATICS OF RICE BREEDING

ACCESSING GERMLASM / IDENTIFYING PARENTS



Achievements of GRDB Breeding Program

Rice Varieties Released by GRDB (1997-2015)

S.N.	Varieties	Year Release
1.	BR 240	1997
2.	BR 444	1997
3.	F ₇ -10	1997
4.	G98-22-4	2001
5.	G98-24-1	2001
6.	G98-30-3	2001
7.	G98-196	2001
8.	G98-135	2005
9.	GRDB 09	2009
10.	GRDB 10	2009
11.	GRDB 11	2011
12.	GRDB 12	2011
13.	GRDB 13	2015
14.	GRDB 14	2015



Commercial rice varieties in Guyana