



JATAFF

THE TRAINING COURSE FOR DUS TEST OF RICE

Hanoi, Vietnam

30th Sept – 2nd Oct 2014

SITUATION BREEDING AND PRODUCTION OF RICE IN MALAYSIA 2014

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TOTAL RICE PRODUCTION & IMPORT



Year	1990	2000	2006	2007	2008	2009	2010	2011	2012	2013
Production (Million MT)	1.22	1.38	1.38	1.53	1.54	1.62	1.64	1.65	1.65	2.7
Import (Million MT)	0.33	0.59	0.84	0.80	1.10	1.09	0.93	1.0	1.1	1.1

Source : Department of Agriculture 2012



RICE BREEDING

- Objective

To produce rice varieties that are adaptable to the farmers requirement and the local environment due to climate change

- Short period, non sensitive photoperiod
- Short , erect dan suitable for direct seeding
- High yield potential and quality
- Resistance to pests and diseases

BREEDING PROGRAMME



High yield

Resistant to Pest and Disease

Special varieties & fragrant

BREEDING PROGRAMME



Hybrid rice

Abiotic pressure tolerance

Molecular breeding

Breeding

Germplasm

Screening and characterizations

Hybridization

F1



Yield trials

Screening for resistance to blast,
BPH, BLB,

PMV and quality assessment



Evaluation

Multi-location adaptability trials

Agronomic trials/management
package

Local verifications trials

Up-scaling and /or pilot projects



Seed Production

Seed purification from family ear
rows

Breeder seeds

Foundation seeds



Varietal Released

MARDI Technical committee

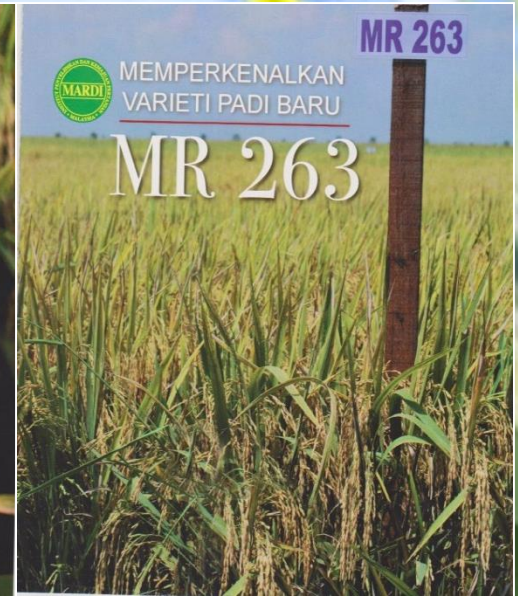
MARDI 'S Science Council

Ministry of Agriculture and Agro –
based industry

RICE VARIETIES (1964 – 2013)



Rice	32
Sticky rice	3
Black sticky rice	1
Fragrant rice	2
Red rice	1
Herbicide resistance	2
Total	41



DECLARED RICE VARIETIES



No.	Varieties	Year
1	MALINJA	1964
2	MAHSURI	1965
3	RIA	1966
4	BAHAGIA	1968
5	MURNI	1972
6	MASRIA	1972
7	JAYA	1973
8	SM 1	1974
9	SM 2	1974
10	PM 1	1979
11	SETANJUNG	1979
12	SEKENCANG	1979

No.	Varieties	Year
13	SEKEMBANG	1979
14	KADARIA	1981
15	P.SIDING	1981
16	MANIK	1984
17	MUDA	1984
18	SEBERANG	1984
19	MAKMUR	1985
20	MR 84	1986
21	MR 81	1988
22	MR 103	1990
23	MR 106	1990
24	P. HITAM 9	1990

No.	Varieties	Year
25	MR 123	1991
26	MR 127	1991
27	MR 159	1995
28	MR 167	1995
29	MR 185	1997
30	MR 211	1999
31	MRQ 50	1999
32	MR 219	2001
33	MR 220	2003
34	MRQ 74	2005
35	MR 232	2006
36	MR 220 CL-1	2010

No.	Varieties	Year
37	MR 220 CL-2	2010
38	MR 253	2010
39	MR 263	2010
40	MRQ 76	2012
41	MR 269	2013

RED RICE VARIETY



AEROB RICE VARIETY

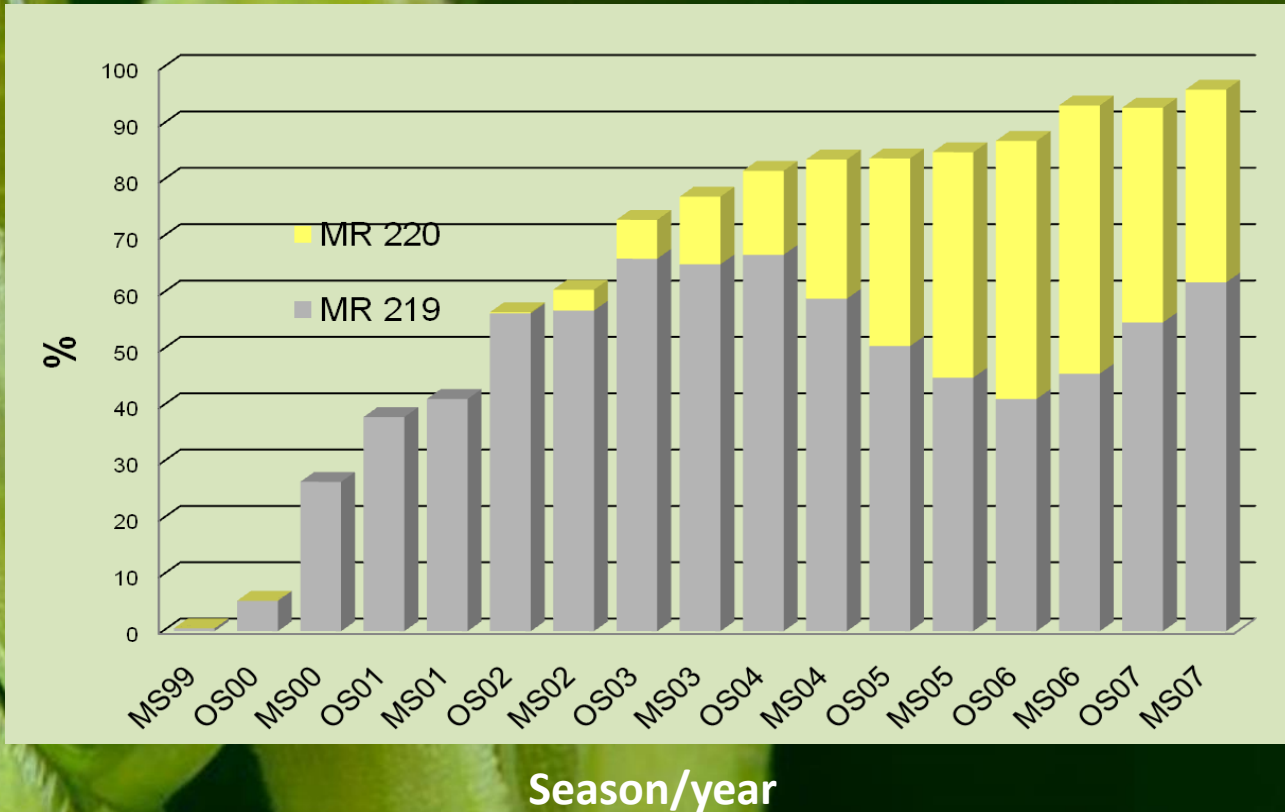


HERBICIDE RESISTANCE VARIETY



POPULAR RICE VARIETY

VARIETIES COVERAGE FOR USING MR 219 AND MR 220 IN PENINSULAR MALAYSIA



GRAIN LENGTH

Grain length (mm)

MR 84 : 9.24

MR 219 : 10.36

MR 220 : 10.39

MR 232 : 10.22



AMILOSE CONTENT ANALYSIS

MR 84 : 27.6

MR 185 : 28.3

MR 211 : 20.1

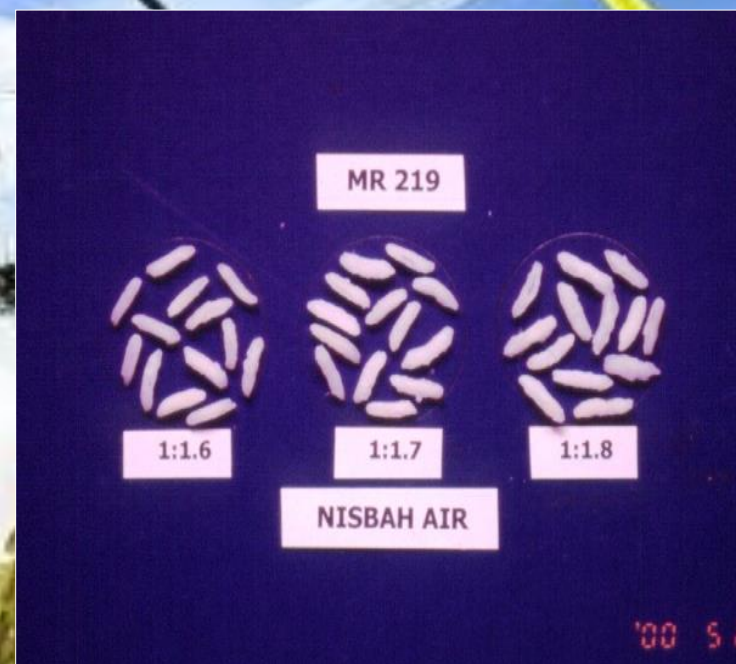
MR 219 : 21.4

MR 220 : 22.7

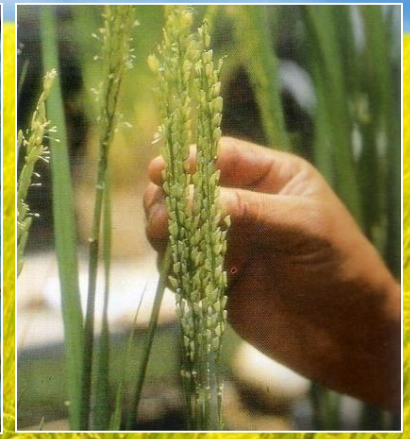
MR 232 : 20.2

MRQ 50 : 26.0

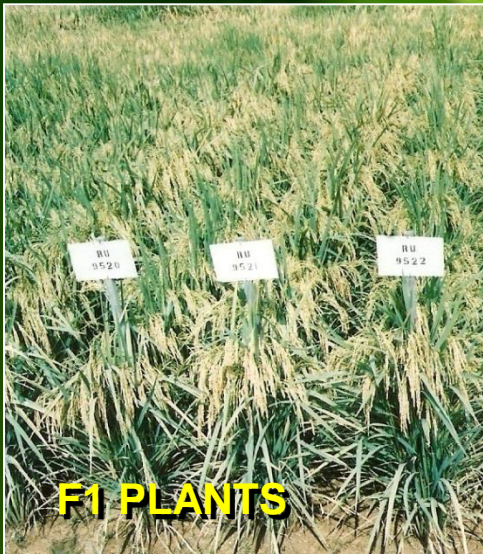
MRQ 74 : 27.0



BREEDING PROCESS



EARLY PROGENY RICE SELECTION





EXAMPLE

CERTIFICATE OF REGISTRATION OF NEW PLANT VARIETY & GRANT OF BREEDER'S RIGHT

FORM PVBT 7
PBR 0001


PROTECTION OF NEW PLANT VARIETIES ACT 2004
PROTECTION OF NEW PLANT VARIETIES REGULATIONS 2008
(Paragraph 14(a))

**CERTIFICATE OF REGISTRATION OF NEW PLANT VARIETY
AND GRANT OF BREEDER'S RIGHT**

Plant Variety Protection Registration Office
Crop Quality Control Division
Department Of Agriculture, Malaysia

It is certified that the plant variety whose particulars appear below has been registered under section 28 of the
Protection of New Plant Varieties Act 2004 [Act 634], by the Plant Varieties Board and is assigned to the

Registration Number **PBR 0001/12**

PARTICULARS OF PLANT VARIETY

Name of Breeder's Right Holder **MALAYSIAN AGRIFOOD CORPORATION BERHAD**

Variety Denomination **FRANGI**

Common Name of Plant **PAPAYA**

Botanical Name ***Carica papaya***

Duration of Protection **20 years (24 Dec. 2002 to 23 Dec. 2022)**

TERMS AND CONDITIONS

- Grant of breeder's right is based on subsection 14(1) of the Act.
- Breeder's right holder is to abide by all the duties under section 35 of the Act.
- Breeder's right holder is to abide by all the fees as provided in regulation 4.

Signature _____
(Chairman of Plant Varieties Board)

Name **MU STAFA KAMAL BAHARUDDIN**

Date **21 SEPTEMBER 2012**



ANNUAL RENEWAL		
1.	10.	19.
2.	11.	20.
3.	12.	21.
4.	13.	22.
5.	14.	23.
6.	15.	24.
7.	16.	25.
8.	17.	26.
9.	18.	27.

TRANSFER OF OWNERSHIP OF BREEDER'S RIGHT			
Name of New Breeder's Right Holder	NIRC No./Company Reg. No.	Date of Transfer of Right	Endorsement By The Board
1.			
2.			
3.			

YEAR 2013

1. Padi 'UKMRC-2' (PVBT 032/09)
2. Padi 'UKMRC-3' (PVBT 033/09)
3. Padi 'UKMRC-4' (PVBT 034/09)
4. Padi 'UKMRC-8' (PVBT 038/09)
5. Padi 'UKMRC-9' (PVBT 039/09)
6. Padi 'UKMRC-10' (PVBT 040/09)

2012

7. Padi 'MR220 CL1' (PVBT 012/11)
8. Padi 'MR220 CL2' (PVBT 013/11)
9. Padi 'MR269' (PVBT 019/12)
10. Padi 'MR276' (PVBT 007/12)
11. Padi 'MR253' (PVBT 024/11)
12. Padi 'MR263' (PVBT 025/12)
13. Padi 'MR272' (PVBT 027/11)

2013



**THANK YOU FOR
LISTENING**