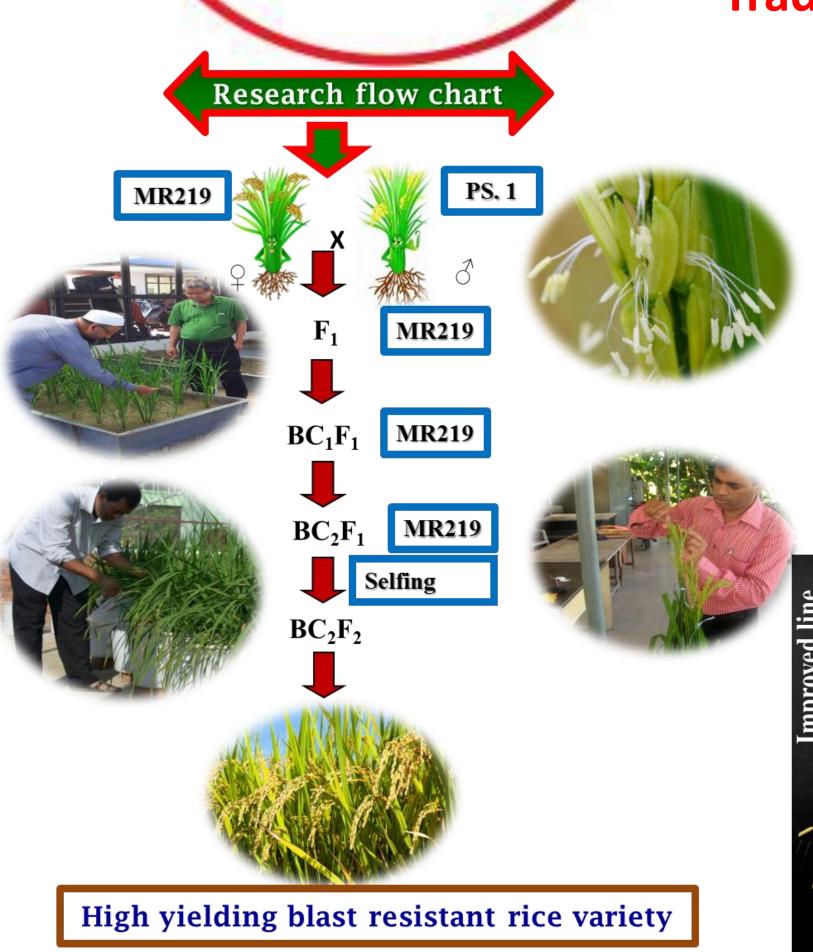


# PadiU Putra 1: High yield and blastresistant rice variety

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### **CURRENT ISSUES**

Blast disease is one of the major fungal diseases infecting rice production in Malaysia. This disease can cause up to 50% yield loss during severe infestation. The breeding program for development of blast resistant varieties without compromising high-yield is the most durable and environmental friendly process of enhancing sustainable rice production.

#### **TECHNOLOGY**

Broad-spectrum blast resistance genes (*Piz, Pi2* and *Pi9*) were introgressed from local resistant rice variety (Pongsu Seribu 1) into high-yielding but highly blast-susceptible (MR219) through marker-assisted backcross breeding. The agronomic performance of advanced blast-resistant lines was evaluated for yield performance in glasshouse and four granary rice areas.



# **NOVELTY AND ADVANTAGES**

- 1. Yield 10 to 12 t/ha
- 2. The newly developed blast resistant rice variety reduces yield loss and increase productivity by 20-30%
- breeding program for development of blast 3. Environmental friendly with less application of resistant varieties without compromising fungicides

## **MARKET POTENTIAL**

- 1. Increase income of rice farmers through high yield harvest and reducing cost of productions (less use of fungicide).
- 2. The expected total hectareage for the new variety after three years would be more than 20% (100,000 ha) of rice cultivated area in Malaysia.
- 3. Increase total rice production and self sufficiency level (SSL) which will reduce the import of rice and to meet the target of food security.
- 4. Reduce environmental pollution using environment-friendly blast resistant variety (Sustainable Agricultural Practice).

# Potential Consumer/Market

- 1. Rice farmers
- 2. Rice seed producers
- 3. Rice breeders



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