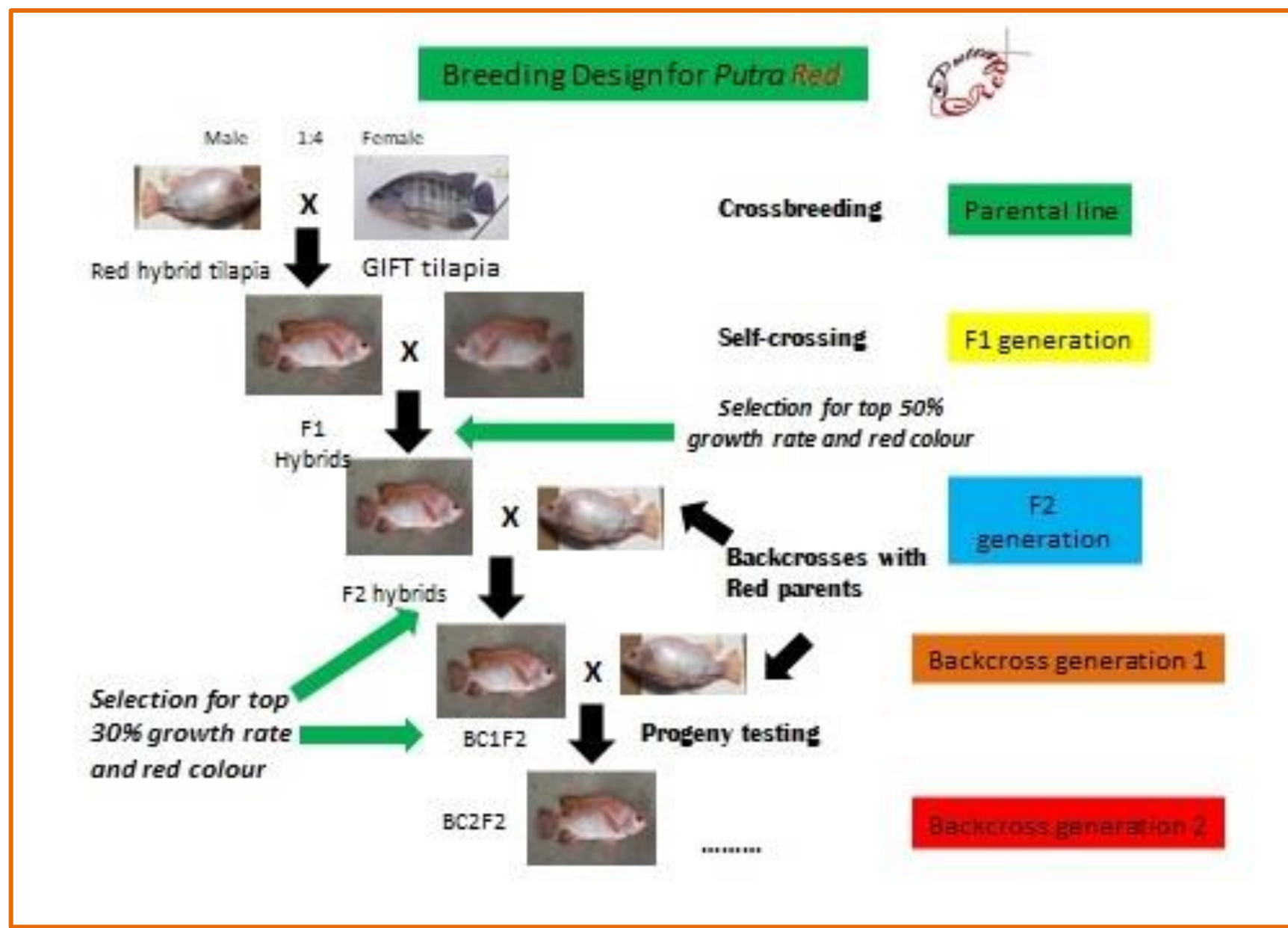




Putra Red: Premium UPM Red Hybrid Tilapia

TM NO. 2016071009



COMPARISON OF GROWTH PERFORMANCE PARAMETERS BETWEEN PUTRA RED AND ITS ORDINARY RED HYBRID & GIFT PARENTS

Parameters	Red hybrid tilapia	GIFT tilapia	Putra Red
Weight gain (g)	264.69±0.54 ^a	271.42±0.19 ^b	332.15±0.47 ^c
Length gained (cm)	16.64±0.17 ^b	17.54±0.25 ^b	19.63±0.38 ^a
Specific growth rate (%day ⁻¹)	2.3±0.06 ^b	2.3±0.05 ^b	2.4±0.02 ^a
Food conversion ratio (FCR)	1.1±0.03	1.1±0.11	1.0±0.08

TECHNOLOGY

Putra Red tilapia is produced through crossbreeding between female GIFT tilapia and male red hybrid tilapia followed by generations of backcrossing and progeny test with dominant red hybrid parent to produce stable line of new tilapia breed. Putra Red exhibited red body coloration favored by consumers in this region and inherited superior traits from their GIFT parents such as faster growth performance.

CURRENT ISSUES

- Tilapia is one of the most important freshwater fishes in the aquaculture industry worldwide especially as foodfish. In Malaysia, red hybrid tilapia is more preferred by consumers compared to other types of tilapias including the superior GIFT tilapia. Red tilapia production in Malaysia reached 31,844.83 tonnes, valued RM332,932.36 (DoF, 2019), up 35.15%
- The demand for red hybrid tilapia seedlings among farmers is growing rapidly and production of locally developed high quality tilapia breed is still lacking. Therefore, a research was initiated in UPM to develop and produced a new breed of red hybrid tilapia (called Putra Red) through a genetic selection program.

INVENTIVENESS & NOVELTY

- First tilapia breed scientifically produced and reported through crossbreeding between GIFT tilapia and red hybrid tilapia
- Putra Red exhibited faster growth performance higher than ordinary red hybrid tilapia and comparable to the GIFT tilapia
- Putra Red retained its red body colouration which is favoured by consumers in Malaysia and this region

USEFULNESS & APPLICATION

Putra Red tilapia growth faster than ordinary red hybrid tilapia thus making two cycles of fish production per year possible. Moreover, the red appearance of Putra Red tilapia would fetch higher selling price (e.g. RM15/kg) compared to other type of tilapia.

IMPACT OF THE PRODUCT

- Putra Red will increase and boost tilapia farming industry
- Higher growth performance for seedlings compared to most of the other red hybrid tilapia, farmers can harvest and sell their fish slightly earlier than usual
- Efficiency in Feed Conversion Ratio FCR (1.0), which will reduce overall production cost

MARKET POTENTIAL

- Target customer: Fish farmers, aquaculture and food industry, tilapia lovers, local food stalls/restaurant
- Targeted market: production of 1 million Putra Red seeds annually, worth RM300,00/year by 2023

TRL : 8 -Product/System complete and qualified



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