



Figure S1. Frequency distribution of seven traits in three RIL populations. TI = Teqing/IRBBs; ZM = Zhenshan 97/Milyang 46; XM = Xieqingzao/Milyang 46. BR = Brown rice recovery; MR = Milled rice recovery; HR = Head rice recovery; GY = Grain yield per plant; BRY = Brown rice yield per plant; MRY = Milled rice yield per plant; HRY = Head rice yield per plant. Parental values are shown by arrows.

Table S1 Phenotypic performance of seven traits in the three RIL populations

Trait	Population	Mean	SD	CV	Range	Skewness	Kurtosis	Parental	
								Female	Male
BR	TI	80.7	0.96	0.0119	77.8–82.8	-0.44	0.03	82.3	79.8
	ZM	80.9	0.94	0.0116	78.7–83.4	0.21	-0.27	80.6	81.1
	XM	80.7	0.94	0.0117	78.3–83.3	0.06	0.02	79.3	79.9
MR	TI	72.0	1.03	0.0144	69.1–74.6	-0.37	-0.42	74.9	70.9
	ZM	72.6	1.02	0.0140	69.7–74.9	-0.15	-0.16	71.5	73.4
	XM	72.2	1.30	0.0180	68.5–76.2	0.15	0.37	69.7	72.5
HR	TI	59.5	5.76	0.0967	35.4–70.5	-0.76	0.83	69.7	64.6
	ZM	57.5	7.28	0.1266	27.9–69.2	-0.88	0.91	52.6	63.4
	XM	57.3	7.37	0.1288	33.1–71.8	-0.56	0.42	60.1	59.3
GY	TI	34.58	5.65	0.1634	17.81–49.27	0.17	0.04	40.40	27.03
	ZM	23.56	4.58	0.1943	11.59–36.58	0.31	-0.04	21.08	24.04
	XM	22.59	5.44	0.2406	11.74–45.29	0.78	1.50	16.41	22.44
BRY	TI	27.93	4.64	0.1661	14.24–40.06	0.15	-0.04	33.24	21.55
	ZM	19.06	3.71	0.1946	9.55–29.23	0.31	-0.08	16.97	19.49
	XM	18.26	4.47	0.2447	9.48–37.40	0.84	1.72	12.99	17.93
MRY	TI	24.85	4.13	0.1662	12.77–35.87	0.15	-0.02	30.25	19.17
	ZM	17.10	3.34	0.1955	8.40–25.89	0.28	-0.14	15.06	17.63
	XM	16.34	4.08	0.2495	8.52–33.71	0.87	1.77	11.43	16.27
HRY	TI	20.14	3.77	0.1871	11.09–31.55	0.30	0.45	28.21	17.40
	ZM	13.62	3.60	0.2642	4.70–23.26	0.22	-0.19	11.19	15.35
	XM	13.00	3.82	0.2942	4.49–27.28	0.62	1.30	9.88	13.30

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Table S2 Simple correlation coefficients between seven traits in the RH-F_{4:5} population

Trait	MR	HR	GY	BRY	MRY	HRY
BR	0.773**	0.243**	-0.003	0.065	0.090	0.092
MR		0.266**	0.041	0.093	0.159*	0.140*
HR			0.064	0.080	0.095	0.440**
GY				0.998**	0.993**	0.923**
BRY					0.997**	0.928**
MRY						0.929**

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