

Table S1. Average germination and dormancy ratios of weedy rice seeds in different populations (each represented by three replicates) before soil burial experiments

Replicate	Total No.	Germination (%)	Death Ratio (%)	Dormancy Ratio (%)	Average germination (%)
NJ-01	30	100.00	0.00	0.00	100.00
NJ-02	30	100.00	0.00	0.00	
NJ-03	30	100.00	0.00	0.00	
ZJ-01	30	100.00	0.00	0.00	100.00
ZJ-02	30	100.00	0.00	0.00	
ZJ-03	30	100.00	0.00	0.00	
XZ-01	30	100.00	0.00	0.00	98.88
XZ-02	30	100.00	0.00	0.00	
XZ-03	30	96.67	3.33	0.00	
NT-01	30	100.00	0.00	0.00	96.63
NT-02	30	96.67	3.33	0.00	
NT-03	30	93.33	6.67	0.00	
YZ-01	30	100.00	0.00	0.00	100.00
YZ-02	30	100.00	0.00	0.00	
YZ-03	30	100.00	0.00	0.00	
SQ-01	30	96.67	3.33	0.00	98.88
SQ-02	30	100.00	0.00	0.00	
SQ-03	30	100.00	0.00	0.00	
WX-01	30	96.67	3.33	0.00	98.88
WX-02	30	100.00	0.00	0.00	
WX-03	30	100.00	0.00	0.00	
LYG-01	30	100.00	0.00	0.00	100.00
LYG-02	30	100.00	0.00	0.00	
LYG-03	30	100.00	0.00	0.00	

Table S2. Duncan test on the seed death ratios and induced seed dormancy ratios of weedy rice populations from Jiangsu Province in China at different soil burial depths in the rice field experiment.

Trait	Population	0 cm	5 cm	10 cm	15 cm	20 cm	25 cm
Seed death ratio (%)	Nanjing	98.67±0.74 a [†]	66.33±2.87 a	29.00±4.72 c	54.67±3.38 a	54.00±3.54 ab	1.33±0.89 a
	Zhenjiang	98.67±1.02 a	75.33±3.11 a	57.67±2.86 a	29.67±3.49 b	20.33±2.30 e	4.67±1.51 a
	Xuzhou	96.33±1.68 a	67.33±3.10 a	44.33±3.62 b	33.33±3.48 b	41.67±3.79 cd	0.00±0.00 a
	Nantong	87.33±1.91 b	56.67±2.72 b	25.00±4.98 c	34.33±4.39 b	44.00±5.30 bc	1.67±1.14 a
	Yangzhou	96.00±1.56 a	39.33±2.52 c	49.67±3.31 ab	50.33±3.12 a	31.00±4.56 de	0.33±0.33 a
	Suqian	97.67±1.32 a	51.33±4.04 b	51.67±4.34 ab	56.33±3.99 a	62.00±3.30 a	0.33±0.33 a
	Wuxi	94.00±1.98 ab	56.33±3.08 b	23.00±4.70 c	27.00±3.83 b	64.00±4.38 a	3.33±1.57 a
	Lianyungang	87.33±1.98 b	46.67±3.88 c	58.67±3.66 a	56.67±4.04 a	6.33±2.96 f	5.33±2.64 a
Induced seed dormancy ratio (%)	Nanjing	0.00±0.00 a	24.33±2.49 b	53.33±4.04 a	34.67±3.03 cd	5.00±3.34 c	0.00±0.00 a
	Zhenjiang	0.33±0.33 a	24.00±3.25 b	40.67±3.06 b	50.00±4.25 ab	35.33±3.07 a	1.00±0.71 a
	Xuzhou	2.67±1.56 a	16.00±3.94 c	40.00±3.75 b	49.67±5.10 ab	29.67±3.90 a	0.00±0.00 a
	Nantong	0.00±0.00 a	38.67±2.59 a	62.67±3.44 a	55.00±4.25 a	36.33±4.08 a	0.00±0.00 a
	Yangzhou	1.00±0.51 a	34.67±1.87 a	34.00±2.71 b	42.00±2.23 bc	4.67±1.81 c	0.33±0.33 a
	Suqian	0.00±0.00 a	33.33±3.18 a	31.33±2.49 b	26.33±3.46 d	5.67±2.05 c	0.00±0.00 a
	Wuxi	0.00±0.00 a	24.67±2.78 b	59.00±3.14 a	53.67±3.31 a	7.67±2.49 c	0.00±0.00 a
	Lianyungang	0.00±0.00 a	25.67±3.85 b	37.67±3.48 b	40.00±3.98 bc	19.00±2.86 b	0.67±0.67 a

[†] Numbers after the average values indicate the standard error of mean (SEM); different letters after the average values and SEM indicate significant differences at $P < 0.05$.

Table S3. Duncan test on the seed death ratios and induced seed dormancy ratios of weedy rice populations from Jiangsu Province in China at different soil burial depths in the laboratory experiment.

Trait	Population	0 cm	5 cm	10 cm	15 cm	20 cm	25 cm
Seed death ratio (%)	Nanjing	60.67±3.17 b [†]	40.33±2.25 c	29.67±2.35 bc	25.67±2.17 ab	15.33±1.74 d	9.67±1.75 ab
	Zhenjiang	69.67±3.53 a	58.00±2.29 a	42.67±2.37 a	25.00±2.50 abc	22.33±1.65 bc	12.33±1.41 a
	Xuzhou	65.00±2.95 ab	47.33±2.42 b	34.67±2.86 b	21.67±2.06 bc	26.67±2.28 ab	12.33±1.72 a
	Nantong	46.33±3.12 c	37.67±2.39 c	28.00±1.80 bc	30.67±2.80 a	28.33±2.40 a	12.33±1.65 a
	Yangzhou	41.33±2.12 c	29.67±2.35 d	27.00±1.89 bc	18.00±2.44 c	13.67±1.53 de	4.33±0.87 c
	Suqian	38.33±1.94 c	30.00±2.22 d	25.67±2.98 c	26.00±2.04 ab	8.67±1.87 e	4.67±1.51 c
	Wuxi	45.67±2.81 c	34.33±1.72 cd	22.67±1.63 c	21.33±2.73 bc	14.00±1.71 de	6.33±1.05 bc
	Lianyungang	42.67±2.21 c	37.67±2.58 c	27.67±1.86 c	18.00±1.80 c	17.33±2.10 cd	3.67±1.26 c
Induced seed dormancy ratio (%)	Nanjing	0.00±0.00 a	16.00±1.39 ab	34.33±3.26 abc	38.33±2.69 ab	11.67±1.34 e	4.00±1.30 b
	Zhenjiang	0.00±0.00 a	16.00±1.39 ab	32.00±2.12 bcd	33.33±2.11 bc	28.67±1.94 b	17.00±1.75 a
	Xuzhou	0.00±0.00 a	11.33±1.42 b	27.00±2.35 cd	39.33±2.27 ab	36.00±2.21 a	13.33±1.86 a
	Nantong	0.00±0.00 a	22.00±2.82 ab	40.33±2.56 a	41.33±2.12 a	23.00±2.13 bc	6.00±1.71 b
	Yangzhou	0.00±0.00 a	14.00±1.71 b	25.34±1.81 d	39.00±2.44 ab	17.00±3.00 de	3.67±1.05 b
	Suqian	0.00±0.00 a	23.67±2.30 a	27.67±1.99 cd	29.67±2.65 c	13.33±1.41 de	3.67±1.53 b
	Wuxi	0.00±0.00 a	16.33±1.82 ab	38.67±2.49 ab	41.00±1.58 a	18.00±1.74 cd	7.00±1.44 b
	Lianyungang	0.00±0.00 a	19.00±1.72 ab	30.67±1.78 cd	29.67±1.68 c	23.33±1.79 bc	7.33±1.47 b

[†] Numbers after the average values indicate the standard error of mean (SEM); different letters after the average values and SEM indicate significant differences at $P < 0.05$.