

## NOTICE

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The new A lines are shorter than B and restorer, which would help pollen dispersal on A plants in seed production. The correlation between PE and uppermost internode length was positive ( $r = 0.9655^{**}$ ) and plant height ( $r = 0.4474^{**}$ ) in the *eui* plant.

The study also showed that some minor genes modified the *eui* gene. That facilitated selecting *eui* A and B lines with suitable PE. Gibberellic acid would not be needed in seed production of the new A lines, significantly reducing seed production costs. □

Some characters of new MS lines and maintainers, Guangzhou, China, 1988.

Line	Genotype	PE <sup>a</sup> (cm)	Plant height (cm)	Exserted stigma (%)
610A	CMS ( <i>eui eui</i> )	-4.2±1.7	72.9	>90
610B	F ( <i>eui eui</i> )	5.3±1.9	80.0	-
612A	CMS ( <i>eui eui</i> )	-1.8±2.2	74.9	>90
612B	F ( <i>eui eui</i> )	6.6±1.4	84.8	-
618A	CMS ( <i>eui eui</i> )	-3.4±2.1	72.4	>90
618B	F ( <i>eui eui</i> )	5.7±1.7	79.0	-
Zhen-Shan 97A (CK1)	CMS ( <i>Eui Eui</i> )	-9.5±3.5	60.7	30-50
Zhen-Shan 97B (CK2)	F ( <i>Eui Eui</i> )	1.1±2.1	72.8	-
<i>eui</i> stock (CK3)	F ( <i>eui eui</i> )	25.9±4.4	136.3	-

<sup>a</sup>Mean PE of all tillers of a single plant.

## Performance of hybrid rice in Indonesia

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We compared yields of hybrid rices and high-yielding conventional varieties in Jul-Oct 1987. Trial entries were hybrid rices II-32A/Ce64, L301A/R29, V20A/IR54, and V20A/Sadang, and popular high-yielding varieties IR36 and IR64. The trial was in a randomized complete block design with six replications.

The crop was intensively managed: hand weeding, optimum water, and complete pest and disease protection. Fertilizer was 120 kg N as urea and ammonium sulfate, 45 kg P, and 45 kg K/ha. N was applied 1/3 at planting,

Grain yield, yield components, and agronomic traits of 4 hybrid rices and 2 high-yielding rice varieties. Maros, Indonesia, 1987 dry season.

Entry	Grain yield (t/ha at 14% moisture)	Panicles (no./m <sup>2</sup> )	1000-grain wt (g)	Unfilled grains/panicle (%)	Grains/panicle (no.)	Plant height (cm)	Duration (d)
II-32A/Ce64	6.7	308	24.2	19.2	140	87	110
L301A/R29	5.5	272	24.8	12.8	131	81	95
V20A/IR54	5.4	308	24.3	15.8	124	78	100
IR64	5.2	313	24.9	14.9	116	91	105
V20A/Sadang	5.1	296	26.3	18.7	129	83	115
IR36	4.3	396	20.4	20.1	134	76	115
LSD (0.05)	1.5	68	2.6	5.2	22	8	-
(0.01)	2.0	92	3.5	7.0	30	11	-
CV (%)	23.5	18	8.9	25.8	14	8	-

2/3 at 30 d after planting.

Only hybrid II-32A/Ce64 produced significantly higher grain yield than IR36 (see table). The hybrids had fewer panicles/m<sup>2</sup> but heavier grains. Spikelet

numbers tended to be high. Unfilled grain percentage was not significantly different from that of IR36.

II-32A/Ce64 is 10 cm taller and matured 5 d earlier than IR36. □

## Stubble planting - promising vegetative propagation method for hybrid rice

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A major constraint in commercializing rice hybrids has been seed production (A line and hybrid). Seed set of 25-30% on the female line results in poor hybrid seed yields.

We studied the feasibility of vegetative propagation as an economical seed

production method. The advantages of vegetative propagation are that 1) need for fresh hybrid seed is reduced; 2) duration of a vegetatively propagated crop usually is less than that of a main crop; and 3) crop establishment savings are realized.

Vegetative propagation methods include ratooning, stubble planting, and tiller separation and planting. Stubble planting appears to be most promising.

During 1987 wet season, we studied 190 genotypes' response to ratooning, stubble planting, and tiller separation and planting. There was considerable genotypic variation. In 1988 dry season,

we evaluated 17 experimental hybrids in a multilocation trial. Thirteen showed good regeneration. Two of three replications were used to evaluate ratooning and one to evaluate stubble planting. The sprouted stubbles of 10 of the 13 hybrids that showed better regeneration were uprooted, cut back to 10-12 cm height, and planted individually. A transplanted crop of Mangala (a short-duration variety) was used as check. Mangala seedlings were raised so that the transplanting coincided with stubble planting. The 11 treatments were laid out in a randomized block design with four