B-93: The potential of a pair of New Plant Type crosses in rice (*Oryza sativa* L)

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The belief among rice breeders that tropical cultivars of the *indica* type have reached a yield plateau, has caused the breeders at IRRI to switch their programme to the breeding of a radically different ideotype, known as New Plant Type (NPT) for a direct seeded, irrigated rice crop. As some of these characteristics lie well outside the normal range the variation found in *indica* cultivars have been initiated from the crosses between *japonica* and *javanica* rice varieties. The objective of this study was to assess the potential in producing inbred lines of the desired level of performance of twelve quantitative characters of interest in NPT from these novel kind of crosses.

The two crosses chosen for this investigation were the Jinmibyeo x Gaok and Sangnambatbyeo x Kemandi Pance. The female parents were Korean (*japonica*) origin and male parents were *javanicas* from Indonesia. Three groups of families were raised at IRRI, Philippines in the dry season 1994, in two adjacent blocks in a completely randomized design, one for each cross. Individual experimental plant was considered as a replicate.

The genetic potential of those characters based on 30 F_3 families with 8 plants from each family of both crosses were studied. An assessment of the potential of these crosses showed that, while it should be relatively easy to achieve the NPT targets for days to heading, days to maturity, tiller number, culm length, panicle length and panicle number in both crosses, this is unlikely for grain yield, proportion of filled spikelets and harvest index in either cross with only one cycle of inbreeding.