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[\[Full-text PDF \(1008K\) \]](#) [\[References \]](#)**Varietal Differences of the Course and Differentiation Time of Large Vascular Bundles in the Rachis of Rice**

Akira FUKUSHIMA and Shigemi AKITA

1) Graduate School of Agricultural and Life Science, University of Tokyo

2) Graduate School of Agricultural and Life Science, University of Tokyo

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Abstract:

The course and differentiation time of large vascular bundles in the rachis of japonica (cv. Musashi-kogane) and indica (cv. IR36) rice were compared. Large vascular bundles in the rachis consisted of large vascular bundles entering from the primary rachis branch (V_p) and the secondary branch (V_s). In Musashi-kogane, one V_p entered from each primary branch to the rachis and travelled down to the neck internode without fusion. Usually, V_s doesn't enter the rachis. Therefore, the vascular ratio shown by the number of large vascular bundles in the neck internode against the number of primary rachis branches was about one. On the other hand, in IR36, one V_p entered from the primary rachis branch to the rachis at the upper position on the rachis. However two V_s and one V_p entered the rachis at the middle and lower positions on rachis. Some of the V_s fused together in the rachis so that the vascular ratio was about two. In both cultivars, V_p differentiated at the early stage of secondary rachis branch primordia differentiation and V_s at the early to middle stage of flower primordia differentiation. These results imply that the development of primary rachis branches as compared with that of rachis is faster in IR36 than Musashikogane.

Keywords:

Large vascular bundle, Primary rachis branch, Rachis, Rice, Varietal difference

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