



# Plant Production Science

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## Plant Production Science

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### Relation between Crown Root Primordia Formation and Stem Size in Unelongated Stems of Wheat (*Triticum aestivum* L.)

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**Abstract:** The number and thickness of crown root primordia (CRP) were examined with special reference to the size of the peripheral cylinder of longitudinal vascular bundles (PV), in which CRP are formed. Unelongated parts of main stems were sampled from the plant at 3.2, 5.2 and 7.2 plant age in leaf number; this index was adopted because of the morphological similarity to rice plants. Serial cross sections were made to investigate the position and the basal diameter of CRP in the unelongated stem. No relationship was observed between the CRP number and the PV side area in each growth stage. In contrast, the basal diameter of CRP increased with the increment of the circumference length of PV at each stage. Taken together, the number of CRP is not related to the PV size, whereas the CRP thickness shown by the basal diameter depend largely upon the PV size. Investigation using physiological approaches is necessary for further understanding of factors that determine CRP frequencies.

**Keywords:** [Crown root primordia](#), [Peripheral cylinder of longitudinal vascular bundles](#), [Triticum aestivum L.](#), [Unelongated stem](#), [Vascular bundle](#), [Wheat](#)

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