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Secondary Growth as a Determinant of Plant Shape and Form

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Abstract

Plants are the primary producers of biomass on earth. As an almost stereotypic feature, higher plants generate continuously growing bodies mediated by the activity of different groups of stem cells, the meristems. Shoot and root thickening is one of the fundamental growth processes determining form and function of these bodies. Mediated by a group of cylindrical meristems located below organ surfaces, vascular and protective tissues are continuously generated in a highly plastic manner, a competence essential for the survival in an ever changing environment. Acknowledging the fundamental role of this process, which is overall designated as secondary growth, we discuss in this review our current knowledge about the

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