Localization of Flavonoids in the Yellow Lupin Seedlings and Their UV-B-absorbing Potential

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Quantification of the flavonoids in yellow lupin (Lupinus luteus; Leguminosae) seedlings revealed that a flavone glucoside, 7-O-β-(2-O-β-rhamnosyl)glucosyl-4',5,7-trihydroxyflavone (apigenine 7-O-β-neohesperidoside), is rich in the epicotyl and cotyledon. In hypocotyls and roots, 8-C-β-glucosyl-4',5,7-trihydroxyisoflavone (genistein 8-C-β-glucoside) was a predominant flavonoid constituent. The roles of the localized flavonoids are briefly discussed relating to defense against biotic and abiotic external stresses.