Screening of the Allelopathic Potential in Herbaceous Plants to Suppress the Growth of Weeds on a Bank

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We examined an allelopathic potential in herbaceous plants. Several plant leaves exhibited inhibitory effect on radicle and hypocotyl growth of lettuce seedling in the sandwich method. Strong growth inhibition of lettuce seedling was obtained with Fallopia japonica (itadori), Centaurea cyanus (yaguruma-giku), and Eremochloa ophiuroides (mukadeshiba). The present study also suggested that C. cyanus could suppress the growth of Solidago canadensis var. scabra (seitaka-awadachiso) cultivating on soil. Although we could not identify the allelochemical of C. cyanus cleary, catechin derivatives appear to be one of the candidate of the allochemical.