



植物生长调节剂缩节胺对黄芩活性成分含量的影响

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中文摘要:目的:分析植物生长调节剂缩节胺对黄芩生长发育和活性成分含量的影响。方法:于一年生黄芩展叶期喷施缩节胺,测量其株高、根长、根直径和根鲜重,并利用HPLC测定根中黄芩苷、黄芩素和汉黄芩素的含量,利用紫外分光光度法测定根的总黄酮含量和DPPH清除率。结果:喷施缩节胺后,根鲜重显著增加,根径显著变粗,根中黄芩苷和总黄酮含量显著升高,黄芩素和汉黄芩素含量显著降低。喷施缩节胺的黄芩根提取物对DPPH自由基的清除作用与对照组无显著差异。结论:黄芩展叶期施用缩节胺可以有效调节黄芩地上部与地下部生长发育,对根中黄酮类成分含量的提高有一定促进作用。

中文关键词:缩节胺 黄芩 有效成分

Effects of plant growth regulator mepiquat chloride on content of active compounds in *Scutellaria baicalensis*

Abstract:Objective: To study the effect of plant growth regulator mepiquat chloride (DPC) on the growing development of plant and the content of active compounds in *Scutellaria baicalensis*. **Method:** After spraying DPC during the seedling period, the length of taproot, fresh weight of root, diameter of taproot and the length of stem were measured. The contents of baicalin, baicalin and wogonin were determined by HPLC, respectively. Total flavonoids and scavenging DPPH were determined with ultraviolet spectrophotometry. **Result:** After spraying DPC, fresh weight of *S. baicalensis* root was significant increased, and root diameter was also increased. The contents of baicalin and total flavonoids were significantly increased and baicalin and wogonin were decreased remarkably. Compared with controls, scavenging activity of ethanol extracts on DPPH free radical was no significant changed after spraying DPC. **Conclusion:** Plant growth regulator DPC could regulate the growth on the ground and underground effectively, and could enhance the content of flavonoids compounds of *S. baicalensis*.

keywords: mepiquat chloride *Scutellaria baicalensis* active compounds

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