

TDZ对铁皮石斛去根苗花芽形态建成中多胺含量变化的影响

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摘要

应用添加TDZ的MS培养基离体培养铁皮石斛去根苗,研究了TDZ对花芽形态建成及内源多胺含量变化的影响。结果发现,0.1 mg·L⁻¹ TDZ处理的铁皮石斛去根苗的成花率达21.1%,而ck组的为0;在花芽形态建成中铁皮石斛顶枝中内源Spd(亚精胺)、Spm(精胺)含量,Spd/Put(腐胺)、Spm/Put高于对照组的,在花芽初现时显著高于对照组的,Put、DAP(1,3-二氨基丙烷)含量均明显低于对照组的,表明外施TDZ可引起铁皮石斛内源多胺代谢及其比值的的变化进而有利于花芽的形态建成。

关键词 [TDZ](#); [铁皮石斛去根苗](#); [花芽形态建成](#); [多胺](#)

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Effects of TDZ on Polyamines Concentration Changes during the Construction of Floral-buds in Derooted Seedlings of *Dendrobium officinale* Kimura et Migo *in vitro*

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Abstract

The effects of tridiazuron (TDZ) on endogenous polyamines concentration changes in derooted seedlings of *Dendrobium officinale* Kimura et Migo *in vitro* and the construction of floral-buds were researched in this experiment, in which MS basal medium supplemented with TDZ was used. It was found that the formation rate of floral-bud in derooted seedlings cultured on MS mixed with 0.1 mg·L⁻¹ TDZ accounted for 21.1%, whereas the control was 0. During the construction of floral-bud, the endogenous concentrations of Spd, Spm and the ratios of Spd to Put, Spm to Put in top shoots of derooted seedlings cultured on MS mixed with 0.1 mg·L⁻¹ TDZ exceeded those in the control, and remarkably exceeded that of control when the floral-bud emerged. In addition, the levels of Put and DAP in top shoots of derooted seedlings were apparently lower than that in the control. It was seen that exogenous TDZ could promote the construction of floral-bud by means of the changes of endogenous polyamines concentration and its ratio in *D.officinale* Kimura et Migo.

Key words [Tridiazuron](#) [derooted seedlings of *Dendrobium officinale* Kimura et Migo](#) [construction of floral-buds](#) [polyamines](#)

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