

园艺—研究报告

马铃薯腋芽快繁微型薯技术研究

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摘要:

应用脱毒微型薯是当前马铃薯生产中最有效的增产措施之一,平均增产幅度在40%~80%。但由于脱毒微型薯价格较高,在生产实际中很难大面积推广应用。根据植物生长点分生组织,在激素诱导下生长极性可以发生改变的原理,在马铃薯现蕾至开花前期,截取脱毒马铃薯中下部带有腋芽的羽状复叶,用一定浓度的萘乙酸(NAA)、吲哚乙酸(IAA)、吲哚丁酸(IBA)和6-苄基腺嘌呤(6-BA1)处理后,经过4~5周的培育,诱导出生产用微型薯。采用马铃薯离体腋芽结薯技术生产微型薯,生产周期短、成本低、操作简便、种薯质量高,是脱毒马铃薯微型薯扩繁生产的一条新途径。

关键词: 新途径

A Study on Technology of Minituber Fast Propagation Using in Vitro Potato Axillary Buds

Abstract:

Application of virus-free potato minitubers is currently one of the most effective measures to increase yield in potato production. And the average yield increase range is between 40% and 80%; however, due to the fact of higher price of minitubers, it is difficult to apply significantly in actual production. A technology of producing potato minituber from pinnate with lateral bud by hormone induction has been studied based on the theory that the growth polarity of plant growing point meristematic tissue can be changed through hormone induction. The result found out that from the bud stage to early flowering period of virus-free potato plant, pinnate with axillary bud which is cut away from the lower part of plant is treated in a certain concentration of NAA, iodole acetic acid (IAA), iodole butyric acid (IBA) and - benzyl adenine (6-BA1), and minitubers for production purpose have been outputed by induction after 4 to 5 weeks' culture. Utilization of the technology based on in vitro axillary bud for potato production has the character of short production cycle, low-cost, easy-operation and high potato seed quality, which has eventually opened up a new way of producing virus-free potato minitubers.

Keywords: new way

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