

论著

温度对茄病镰刀菌生长情况及产孢量的影响

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摘要: 目的 探讨不同孵育温度对茄病镰刀菌生长状态的影响,为获得大量孢子寻找较好方案。方法 茄病镰刀菌按孵育温度不同分为6组,A组、B组、C组、D组、E组分别于20℃、25℃、30℃、35℃、37℃温箱黑暗孵育7 d,F组于35℃温箱黑暗孵育3 d再于25℃温箱黑暗孵育至7 d,各组在培养24 h、3 d、5 d、7 d时分别用游标卡尺测量各组菌落直径,在培养3d、5 d、7 d时用血平板计数器计数产孢量。结果 在20~30℃范围内茄病镰刀菌菌落生长速度随温度升高而增快,在30~37℃范围内菌落生长速度随温度升高而减慢,F组产孢量较多(为1.025×10⁸ CFU/mL),而菌丝相对较少。结论 茄病镰刀菌在20~37℃范围内均可以生长,30℃较适合茄病镰刀菌菌落生长,35℃温箱孵育3 d再于25℃温箱孵育至7 d是获得大量孢子而非菌丝的较好方案。

关键词: 温度 茄病镰刀菌 产孢量

Effect of temperature on the growth and spore production of *Fusarium solani*

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Abstract: Objective To investigate the influence of temperature on the growth,sporulation quantity and pathogenicity of *Fusarium solani*.To find out the best way for promoting conidial production of *Fusarium solani*.Methods *Fusarium solani* from 5 different groups were incubated in dark for 7 days at 20℃,25℃,30℃,35℃,and 37℃,respectively.Group F was incubated in dark for 3 days at 35℃,and at 25℃ for the next 4 days.The diameters of the colonies were measured by vernier caliper on 24 h,3 d,5 d,and 7 d.Conidial production was determined by hematimeter on 3 d,5 d,and 7 d.Results Between The growing speed of *Fusarium solani* colony increased during 20℃ to 30℃,while decreased during 30℃ to 37℃ with the temperature going up.Conclusions *Fusarium solani* began to grow and produced conidiospore at 20 to 35℃.The pathogenicity of the *Fusarium solani* was affected by temperature obviously,with 30℃ as the suitable temperature.Incubation at 35℃ for 3 days and at 25℃ for consecutive 4 days was good for sporulation.

Keywords: temperature *Fusarium Solani* conidial production

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