板栗贮藏方法对比研究

Comparative Studies on Storage Methods of Chinese Chestnut

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中文摘要：

该试验对不同处理板栗在贮藏过程中呼吸强度、水分含量、淀粉含量、维生素C含量、乙烯释放量、过氧化物酶(POD)活性以及腐烂率进行了定期测定。试验结果表明常温沙藏条件下贮藏3个月的板栗，在整个贮藏过程中呼吸强度变化不大，明显低于其他处理；水分含量有所增加，由51.62%增加为61.7%，明显高于其他处理；淀粉含量降低，由30.5%降至17.84%，明显低于其他处理；POD活性保持增加的趋势，由29 U/(g·h)增至85.34 U/(g·h)，贮藏前期低于其他处理，后期高于其他处理；维生素C含量降低，由54.54 mg/(100 g)降至33.59 mg/(100 g)，与其他处理差别不显著；乙烯释放量为0，其他处理均有乙烯检出；腐烂率为20%，明显低于常温魔芋液膜处理，与低温对照相等。因此常温沙藏板栗是一种经济可行的方法。

英文摘要：

Respiratory rate, moisture content, starch content, vitamin C content, ethylene production, POD activities, and decaying rate were periodically determined during the storage period of Chinese chestnut. The results show that the chestnut stored with sand under normal atmospheric temperature for 3 months is of stable respiratory rate and it is significantly lower than that of the other treatments, the moisture content increases from 51.62% to 61.7%, which is higher than that of the other treatments, the starch content decreases from 30.5% to 17.84%, which is lower than that of the other treatments, the activities of POD keep an increasing trend (29～85.34 U/(g·h)), lower than those of the other treatments in the early storage. On the contrary, later, the vitamin C content decreased from 54.54 mg/(100 g) to 33.59 mg/(100 g) and there was no significant difference, the ethylene production was zero, and there was a significant difference; the decaying rate was 20%, lower than that in the treatment of normal atmospheric temperature when coated with amorphophallus, but equal to the treatments of low temperature. It was confirmed that the storage with sand under normal atmospheric temperature was an economical and practical method for chestnut freshness-keeping.

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