SUSTAINABLE POSTHARVEST AND FOOD TECHNOLOGIES - INOPTEP 2009 DIVCIBARE, SERBIA, April 21st - 24th (26th), 2009

SHELF LIFE AND STORAGE OF THE STRAWBERRY VARIETIES

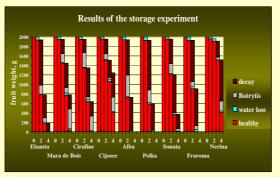
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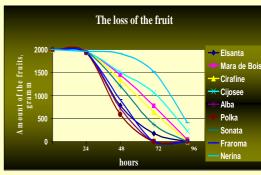
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INTRODUCTION

Strawberry is a nonclimacteric fruit characterized by a short postharvest life. It is prone very to rapid dehydration, physiological disorders, bruising and other mechanical injuries and to infections. Freshly picked strawberry fruit can be stored for as much as 14 days under optimal circumstances. This involves regulated temperature, humidity, and atmosphere. It is primary economic importance to know, however, the length of shelf life of the fruit under normal temperature (22°). We stored and tested the change of fruit of 9 different strawberry varieties as a function of storage days after harvest, without any additional treatment. Three forms of loss of fruit quality were recorded independently: fruit weight loss, disease (Botrytis cinerea), and decay.







Relation of fruit decay and water loss **Polka **Polka **Praroma **Alba **Sonata **Circlin/Vara de Bois

Relation of the amount of the ill fruits and the ripening time

RESULTS

We found significant differences among the tested varieties. Though all varieties can be stored without considerable amount of quality loss for one day, only some specially selected varieties are suitable for longer term storage in room temperature. We found a positive correlation between the water loss per surface area and the fruit decay. A negative correlation was found between the ripening time and the Botrytis infection.

CONCLUSIONS

- Different varieties had different reaction to the natural ambient circumstances
- All varieties kept marketable quality during 24 hours
- Quality changed dramatically after the second day
- Alba, Elsanta, Fraroma and Polka were the most sensitive varieties to the ambient circumstances
- Nerina and Cijosee were the most resistant varieties, their shelf life was tree days
- Those varieties with larger water loss per surface area are more sensitive to fruit decay
- Varieties with early ripening time had the greatest number of fruits infected with Botrytis, the late varieties had the less infection