Effect of accumulation of thylene produced by apple storaged in controlled atmophere on the ripening behavior of apples in shelf life priod

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Experiments were carried out on the apple (variety jonagold) in Katholieke university of lueven (Belgium) Fruits have been collected from cells commercial B.F.V (Belgishe fruit,veiling which had controlled atmosphere coditions.

(Temp.storage 1_2 oc, O2%1 CO2 % 1.5 and C2H4 500 to 80000 PPb) during storage period in tree times . the following Analyzation have been done on each apple in two periods.(1 day after storage and 7 days of shelf life)

1- measeurment of ethylene production

2- measeurment of co2 production

3- measeurment of co2 flesh firmness , colour , etc

With respect to statistic analysis and science theorey there is correlation between flesh firmness and ethylene produdction and loss flesh firmness of apple during storage in rapid controlled atmosphere (ca) seems to be retated to high ethylene concentration in storage rooms at first week of storage period.

Loss of flesh firmness by the red side of apple in more than the green side during storage and during the shelf life period.

of (AxB) and (AxC) crosses and 46.6% in (AxG) and (AxD) crosses and 40% in (AxH) cross. The hybrid seeds of Haj Yousefi cultivars (AxE) and protiva (AxF) showed no germination with any of the treatments. Also the results of the studies carried out on the seeds resulting from open pollination showed an increase of germination rate to %100 under 6-month stratified treatment. Considering the findings of the present research, it can be concluded that the best stratified treatment for (AxB) cross is 5 month and for (AxC), (AxG), (AxD) and (AxH) crosses 6 month. It is proposect that the seeds resulting from (AxE) and (AxF) crosses undergo scarification prior to stratified treatment. It is also proposed to use perlite environment or very light soil for germination of seeds with high percentages.