

UVA WELLASSA UNIVERSITY OF SRI LANKA
FACULTY OF ANIMAL SCIENCE & EXPORT AGRICULTURE



BSc in Export Agriculture
Third Year First Semester Examination – June/July 2017

Advanced Postharvest Technology (EAG 361-2)
Essay Questions



Instructions:

Answer only four (04) questions, in the given booklet.

No. of questions : Five (05)

No. of pages : Two (02)

Time : Two (02) hours

Total marks allocated : 100 %

Note: Handover the question paper along with the answer script.

01. A researcher has carried out a loss assessment study on Okra and the results obtained are shown below.

Packing	VQR	Postharvest loss (%)
Woven sacks	5.4 ± 0.8 ^a	28.5 ± 2.5 ^a
Plastic crates	8.6 ± 0.7 ^b	15.4 ± 2.6 ^b

Within a column, means followed by different letters are significantly different at DMTR 5%.

Why Visual Quality Rating (VQR) and postharvest losses are significantly different when the commodity is transported using woven sacks and plastic crates? Explain in detail using the results obtained.

(25 marks)

02. Explain the possible reasons for the following observations.

(I) Mangoes harvested during a drought season from a commercial orchard were sea freighted to Middle-East after following proper packing house operations. However, the whole lot was ripened before reach the destination.

(II) Red onions were imported from India and kept in a whole sale store in Colombo. After few weeks, sprouting was observed when unloaded at a retail outlet at Pettah market.

(12.5 marks x 02 = 25 marks)

03. Explain in detail how the intermittent warming helps to overcome the internal browning in pineapple during sea freight.

(25 marks)

04. Both quantitative and qualitative losses of perishables occur at all stages in the postharvest handling system of the distribution chain. Considering the fact write an account on the importance of Minimum Handling Concept in fresh produce handling.

(25 marks)

05. Ripening process of mature mangoes was induced by exposing to ethylene gas at domestic level. After induction process, the fruits were kept in a closed plastic bin. Although fruits were of proper stage of maturity, ripened fruits exhibited very poor quality. Explain the reasons for the above observation and what is your advice to overcome the problem?

(25 marks)

[End of the Paper]

