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Temperature Recorder Usage Guidelines

1. Background

Temperature recorders are regularly used to measure delivery air temperature in containers and vessels en route. Having immediate access to records of the delivery air (DAT) in the container/vessel for the entire voyage on arrival, is a benefit that many exporters and receivers regard as very valuable. In case of quality problems, evaluation of temperature records can assist in processing claims quicker and more effectively. Analysis of breaks in the cold chain often assist in determining the impact on the condition of the fruit.

Exporters each have their own policy regarding when and what recorder is to be used. Here are general guidelines that can be considered when making a decision regarding the use of temperature recorders.

2. Conventional vs Containerised Shipments

The use of temperature recorders in conventional vessels is not a regular practice. Should a quality problem related to temperature problems be identified, PPECB can be requested to evaluate the vessel's logs and establish whether the vessel was at fault.

In the case of containers temperature recorders are regularly used. Retrieving temperature logs of a specific container is cumbersome and can take months as the container may have been shipped to other destinations in the meantime. Shipping lines are not keen on making these records available and will also only do it if a fee of \$100+ is paid. Using temperature recorders to get quick access to temperature information is therefore advisable.

3. Insurance

Some insurance companies insist on the use of temperature recorders if the exporter has marine insurance. The specification of the recorder may vary from company to company. Records of some recorders are admissible in court whereas some are not.

4. Receivers

Receivers of the consignment may insist on temperature recorders and may also specify the type depending on available software. In certain markets such as the Far East, some receivers insist on strip chart recorders in order to have immediate records in a hard copy manner. The trend is increasingly for digital recorders where data can be analyzed and/or e-mailed.

If the receiver is unable or not interested in retrieving the data when required, it makes no sense to use recorders. The situation must be cleared with the receiver prior to shipment.

5. Commodity

Certain commodities are more sensitive to temperature fluctuations than others. The more critical the temperature is, the greater the reason for using a temperature recorder. Shipment of plums in containers will almost always be accompanied with a recorder whereas some exporters opt for not using recorders for hard citrus.

6. Practical Considerations

Loading points are responsible for inserting recorders. Instructions of using different recorders for different consignees often lead to errors. The more standardized an instruction is, the less chance there is for making mistakes.

Short term shortages can also be solved by drawn stock from other exporters that use the same model of recorder.

Recorders vary their user-friendliness which impacts on the risk of the recorder not being activated correctly.

7. Service Levels

Service levels vary from one supplier to the next. Access to stocks on short notice, availability of calibration certificates, supply of pallet stickers and access to software are all factors that must be taken into account.

8. Cost Considerations

Margins on fruit exports are very slim and any cost that can be taken out of the cost chain must be considered seriously. It is the exporter's decision whether a temperature recorder is essential or a nice to have.

The cost varies from one recorder model/make to another. Some are reusable but have to be retrieved and returned. There are also some recorders that can be returned for marginal refunds e.g. \$2 each.

Software for digital recorders is normally readily available at no cost.

9. Technical Features

Although basic recording features may be comparable, some models have features that make analysis of data easier.

Advanced technical features such as databanks are available for analysis of the cold chain elements and the management thereof.

10. Temperature Management

Objective analysis of information can assist in pro-actively identifying problem areas and taking early corrective steps. Breaks in the cold chain for excessive periods may be a regular occurrence and can seriously affect fruit quality.

11. Conclusion

As can be seen several factors influence the decision whether or not to use a temperature recorder and also what make and model. It is proposed that each exporter considers its circumstances and with the different considerations listed above makes a policy decision that is clear and can be implemented in a practical manner.