



## Pre-Harvest factors effect on post-harvest Mango quality

In GreenCHAINge an innovative “smart chain” is being developed. Overall goal is to improve the intrinsic quality of the product on the shelf.

### Objective

Obtain uniform and RTE (Ready to Eat) mangos on the shelf. Obtain an objective and reliable method to phenotype mango quality. Assess the effect of pre-harvest factors on mango quality.

### Results

Pre-harvest conditions like rainfall, humidity, temperature, and the use of fertilizers and chemicals were recorded during time and per orchard.

- Variation in mango quality could not be correlated to variation in climate or orchard management since climate only varied slightly while orchard management varied significantly.
- From the 51 monitored variables 16, were identified with a significant variation.

The temperatures between harvest and start of the transport per reefer container differed for each shipment. On some occasions mangos remained warm (>15 °C) for more than 48 hours before being pre-cooled and transported.

### Conclusion

Since there is a difference in the usage in 16 pre-harvest treatments it is not possible to pinpoint one particular solution to post-harvest quality. Although no strait forward correlations could be identified, insights in variation and temperature management provide useful information for agronomist and quality control.

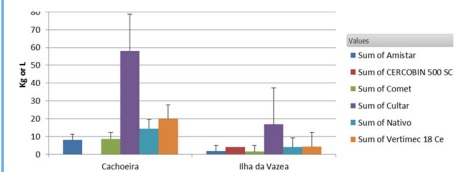
### Relevant for industry

Creating reliable and comparable datasets is a prerequisite to find correlations. The feedback of quality on arrival offers the opportunity to find correlations in the near future.

### Information

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*“Insights in variation and temperature management provide useful information for agronomist and quality control”*



Variation in used chemicals per orchard for the same time period in orchard I and orchard II.

For detailed information about this project result please visit [www.wur.eu/greenchainge](http://www.wur.eu/greenchainge).



