

Strawberry firmness and maturity

The more ripe strawberries are when harvested, the softer they are and the shorter their shelf-life. This is one of the key outcomes of a research project, by Wageningen Food & Biobased Research, under the umbrella of the GreenCHAINge program. The findings highlight the importance of well-informed decisions about harvest time and strawberry type.

The GreenCHAINge program developed a 'smart chain' that empowers fruit businesses to improve the intrinsic quality of on-sale fresh fruit. Work Package 3 improved our understanding of how the quality and shelf life of different strawberry cultivars are affected by maturity at harvest.

Comparing firmness

Scientists measured the relationship between maturity stage and firmness for different commercially important cultivars, including Lusa and the Elsanta. They also compared the firmness of different batches of strawberries during shelf life and at different moment during the production season.

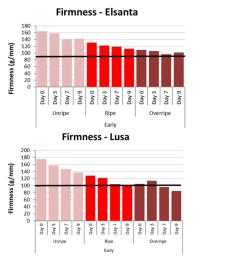
Season and cultivar effects

Strawberries harvested when ripe were softer than strawberries harvested while not yet ripe. For all strawberries, firmness decreased over time. The rate at which they became soft depended on the cultivar and the production season moment in which they were harvested.

For the soft fruit business this means the quality of strawberries can be managed based on the ripening stage at harvest and a suitable cultivar choice. For example when supplying a distant market, firmer cultivars should be selected and strawberries should be picked in less ripe stage. Companies have the chance to match the consumer requirements to the most suitable ripeness stage of the cultivar throughout the season.

Information

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Firmness of unripe, ripe and overripe strawberries over the time (day 0, 3, 7 and 9 after harvest). The black line represents the firmness acceptance limit.

For detailed information about this project result please visit www.wur.eu/greenchainge.



