



# Our Flavour Data can help you to enhance your products

Wageningen UR Greenhouse Horticulture

## The Flavour Toolbox

Good flavour is an added value to enhance your products. Wageningen UR Greenhouse Horticulture has developed several practical tools for the vegetable supply chain to quickly establish the flavour level of various vegetables and fruits. Our tools and our knowhow can help to improve the flavour of your products.



## Several flavour panels

Flavour assessment of tomatoes and other products can be done by panels of consumers, the buyers of your products. We use such a panel of about 120 men and women, of which 40 are called upon for each session. This panel determines which fruits have the best flavour. Also, our Kids panel can help you to find out which products are preferred by young children. Additionally, our sensorial expert panel of 12 trained tasters can clearly describe the characteristic flavour differences between samples. Such sensorial panels are often employed to gain a better understanding of the preferences of consumers. Panelists of the sensorial expert panel may also be employed to compare promising successors to a benchmark in a round table discussion.



## Model measurement

Wageningen UR Greenhouse Horticulture has developed a flavour measurement model for tomato. With this model the flavour level of a tomato can be quickly and inexpensively assessed. This model is developed to efficiently screen large quantities of tomato varieties on their flavour level.

## Advantages of the model

The model is quick, and gives an indication of the flavour level in one value on a scale of 0 - 100. An advantage of the model is that its results are always comparable to each other. This is mostly not possible with panel results. A disadvantage of the model is that off-flavours are not taken into account. Our customers have been able to make good commercial decisions on the basis of this model. This model can also provide the basis for flavour categories, for instance in the cocktail tomato segment. Discussions on these categories are on-going with several chain partners.

For more information:

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## Disadvantages of panels

The consumer panel is good at pointing out which tomatoes have the best flavour, but only if there are clear differences between the samples. With routine flavour assessments this is often not the case. Furthermore, the results of panels are always very dependent on the range of products which are presented. For example: If only two good tomato samples are to be compared, the panel will both score them at around 50 points. However, similar results could be produced if only two mediocre tomatoes were presented to the panel. This makes it difficult to compare results of different panel sessions.



## What is the best approach?

This depends on the situation, but usually large quantities of products are first screened with the model. This can be done during different periods of the year, so giving an idea of the reliability of a variety during the seasons. Subsequently, promising products can then be assessed by the consumer panel or the kids panel. To ensure a good communication with the customer, the product flavour can then be characterized in words by sensorial experts in a round table session for benchmarking. An expert panel may be recommended if the customer wants to understand the importance of the characteristic attributes of the product.

## Options

Some customers only use the screening power of the model. They communicate only the results of their own flavour panels with the afore selected varieties. Alternatively they may publish only the results of the model to allow for an easy comparison of different varieties. Other customers only use the results of the benchmarking session to describe specific differences between a benchmark and possible successors. We can advise you how to profit from the power of our toolbox and choose the tools for an optimal presentation of your products.



## Customized research

We are an independent institute of Wageningen University and Research Centre, and work for various sectors in the supply chain. We take pride in delivering customized research not only for tomatoes and other greenhouse vegetables, but also for products like asparagus, potatoes, carrots, celery, cabbage and melons. We would be pleased to make an appointment with you to discuss the best way to test the flavour of your products.

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