



WAGENINGEN UR

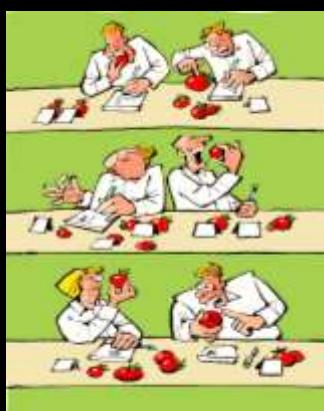
For quality of life

Holland Flavour Lab - The Toolbox



Consumer panel

Flavour assessment of tomatoes and other products can be done by panels of housewives, the buyers of the products. We use such a hedonic panel of 250 people from the local surroundings, of which 50 are called upon for each session. This panel determines which fruits have the best flavour.

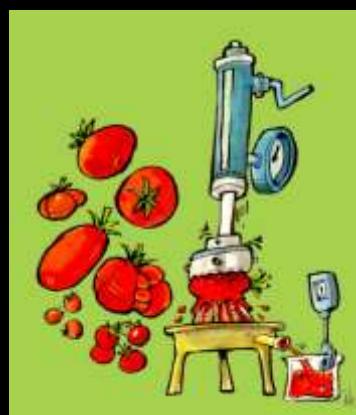


Sensory panel

Our sensory panel consists of 25 trained experts who 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.

Super panel

Especially for some customers we developed the service of the super tasters. These experts give a description of a series of products during a round table discussion. The super tasters are often employed to compare promising successors to a benchmark.



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 tomatoes on flavour.



Panel members taste in separate cubicles; Super tasters discuss the taste in round table sessions.





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Context

The flavour model has until now only been fully developed for tomato. New models for sweet pepper, galia melon and strawberry are under construction. The tomato model is quick, and gives an indication of the flavour level in one value on a scale of 0 - 100. Our customers have been able to make good commercial decisions on the basis of this model. The 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. Furthermore, the model does not take into account that a too sweet flavour can be negative for the overall liking. At present we are upgrading the model to incorporate this knowledge. With our customers we discuss the possible set up of flavour classes for the cocktail segment.



Dutch Minister of Agriculture Gerda Verburg appeared to be a good taster of tomato and eggplant at the opening of Wageningen UR Greenhouse Horticulture in Bleiswijk.

Consumer panel

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 hedonic 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. To ensure a good communication with the customer, the product flavour can then be characterized in words by the super panel. An expert panel may be recommended if the customer wants to understand the characteristic attributes of the different products.



Options

Some customers only use the screening power of the model and communicate only the results of their own flavour panels with the afore selected varieties, or alternatively publish only the results of the model to allow for an easy comparison of different varieties. Other customers only use the results of the super tasters 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 research institute of Wageningen UR, and work for various links in the supply chain. We would be pleased to make an appointment with you to discuss the best way to test the flavour of your products. We take pride in delivering customized research not only for tomatoes and other greenhouse vegetables, but also for products like asparagus, carrots and several fruits.

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