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#277: Consumer preferences for tomato cultivars in Europe: a comparison over three countries

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For many years tomato breeding programmes have focused on improving yield, disease resistance, adaptation to greenhouse conditions and the commercial components of fruit quality (fruit appearance, homogeneity, shelf life, firmness), rather than internal quality such as taste and aroma.
As a consequence, it is not unusual to find consumers complaining about flavour of fresh market tomatoes. In order to satisfy consumers' expectations, tomato breeders are now pursuing organoleptic quality as one of their major breeding objectives. A better knowledge of tomato consumer preferences, at the European level, should provide the bases for a suitable improvement of fruit quality and for the diversification of this product. In the framework of the European project "High Quality Solanaceous crops for consumers, processors and producers by exploration of natural biodiversity" (EU-SOL, http://www.eu-sol.net/), more than 800 consumers of three countries (the Netherlands, France and Italy) were presented with a set of varieties representing the diversity of tomato segments in order to evaluate their preferences. Sensory profiles of the varieties were also established by expert panels in each country. Preference maps were constructed in each country and cluster analysis revealed the structure of consumer preferences and allowed the identification of the major traits that should be improved in order to satisfy the diversity of consumers' tastes. A global analysis revealed that preferences were quite homogeneous over countries, and segmented first on taste and then on texture traits. Detailed analysis showed the importance of fruit appearance on consumers' preference, suggesting to add appearance related descriptors in descriptive profiling to get closer to consumers' preferences.