

Abstract:

For asparagus the most important competition factors are sensory quality and freshness. The image of asparagus to be a vegetable of highest palatability increasingly needs to be justified and demonstrated. Therefore the aim of the study was to quantify the impact of cultivars, location, harvest date and year on the asparagus flavour quality. The varieties 'Huchels Alpha', 'Thielim' and 'Vulkan' were harvested from 2000 to 2002 at three locations in Germany. The material for the sensory and the analytical analyses was sampled four times over the cropping period. The human-sensory and the aroma analyses were carried out one day after sampling. A long-time trained panel carried out the human-sensory evaluations in two replications. The sensory parameters evaluated were subdivided into the direct odour (typical, sweetish, pungent, musty, earthy), the taste (bitter, sweet, typical, tasteless), the mouth sensation (metallic, astringent, crisp, tough, stringy), the aftertaste (bitter, astringent) and the non-dominant, occasionally appearing sensations (cake, bread, potato, soup, stinky, lemon-like, burnt, buttery, sour-like, flowery). Significant effects of variety, location, year and harvest date on the sensory impression and the aroma compounds could be found. The interactions of the main influencing factors are remarkable and they have to be considered in discussions and interpretations of sensory results.