Frequently consumed vegetables have almost no taste

V.L. van Stokkom1,2, P.S. Teo2, M. Marx3, C. de Graaf2, M. Steiger2, O. van Kooten1,2
1University of Applied Sciences Inholland, The Netherlands; 2Wageningen University, The Netherlands

Introduction
Taste is a main driver in preferences and food choices. Humans are predispositioned to prefer sweet and salty tastes and reject bitter and sour tastes, therefore bitter taste is often thought to cause the rejection of vegetables by children.

Aim
The aim of this study was to describe the taste and fat sensation of 10 commonly consumed vegetables in the Netherlands and to investigate the effect of preparation method on vegetable taste.

Methods
A panel (n=9) trained in a modified Spectrum method assessed sweetness, sourness, bitterness, umami, saltiness and fattiness intensity of 10 vegetables commonly consumed in the Netherlands.

Cauliflower
Bell pepper
Broccoli
French beans
Leek
Tomato
Carrot
Cucumber
Onion
Lettuce

Each vegetable was profiled for different preparation methods, namely raw, cooked and mashed. Reference solutions were available for the panel for each taste modality (not for fattiness) (table 1 & figure 1).

Results
All tastes modalities and fattiness had low intensities (table 2 & figure 1). Overall, sweetness was the most intensive taste, followed by sourness, bitterness, umami, saltiness and fattiness. There were significant differences in taste intensity and fattiness between vegetables prepared by different methods.

Conclusions
• Frequently consumed vegetables have almost no taste
• Sweetness is the most intensive taste in vegetables, followed by sourness and bitterness, saltiness is the least intensive taste
• Vegetable preparation method influences taste intensity