

[Abstract:](#)

We identified and quantified volatile aroma compounds from red raspberry fruit to determine the influence of genotype (G), environment (E) and genotype x environment (GxE) in the Pacific Northwest (PNW) of the US and Canada. Raspberry ketone and 28 volatile compounds were extracted from red-ripe fruit of PNW cultivars harvested from 3 locations in 1997 and 1998. There were significant G or E effects for 26 of 34 variables in 1997 and 23 variables in 1998. Seven variables had significant GxE effects in both years, while 13 variables had non-significant GxE effects in both years. Five cultivars were sampled in both years in two locations. There were significant GxE effects for 11 of 34 variables, but significant GxY and GxExY effects for 22 variables.