

# Hot peppers: rapid qualitative assessment methodology to determine postharvest levels of capsaicinoid content in ornamental hot pepper crosses

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## Abstract

In the thrust to increase fixed oil or capsaicinoid [8-methyl-N-vanillyl-1-6-nonamide] in Caribbean hot peppers, a complex breeding programme has been instituted at The University of Trinidad and Tobago (UTT). The crosses include four of the world's hottest peppers, a wide selection of local colored, 'seasoning' and ornamental peppers. While selection is based on gains in crop yield, the relative hotness or pungency is determined quantitatively using HPLC and GC/MS procedures. However, for a rapid assessment of the fixed oil or capsaicinoid, a paper chromatography method was devised using acetone and ethanol. The data obtained from the chromatograms allow for the gains in the different selections to be determined qualitatively leading to selection for further quantitative analysis. The chromatograms showed that 'Carvalho Hot' continues to dominate with respect to pungency. The relative hotness (capsaicinoid) for local ornamental seasoning peppers is for the first time assessed for further breeding and selection.