

**Title** Characterization of quality parameters of highbush blueberry (*Vaccinium corymbosum* L.) cultivars

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#### **Abstract**

Fruit from eight highbush blueberry cultivars ‘Ama’, ‘Berkeley’, ‘Bluechip’, ‘Bluejay’, ‘Duke’, ‘Goldtraube’, ‘Heerma’ and ‘Spartan’ grown in the southern part of Norway in the Oslofjord-area (59° 40’N) were evaluated. The quality parameters assessed were berry weight, soluble solids, titratable acidity, pH, L-ascorbic acid, optical density (O.D.) in juice and total antioxidant capacity using the Ferric Reducing Ability of Plasma (FRAP) method. Results from the years 1997-2002 are presented. Berries were harvested in all years in August at commercial blue-ripe stage of maturity. Principal Component Analysis (PCA) showed that chemical composition was related to cultivar. Highest titratable acidity and optical density values were measured in ‘Ama’ and ‘Goldtraube’ (European cultivars), while pH and soluble solids/titratable acidity (sugar/acid-ratio) were highest in berries of the cultivars ‘Berkeley’, ‘Bluechip’ and ‘Spartan’ (American cultivars). The cultivars ‘Ama’ and ‘Goldtraube’, which had smaller fruit and dark juice colour (high O.D.), had higher total antioxidant capacity, compared to ‘Berkeley’ and ‘Spartan’. The content of soluble solids was not connected to any of the climatic factors.