

Title Anthocyanin pigments in strawberry  
Author Fátima Lopes da Silva, María Teresa Escribano-Bailón, José Joaquín Pérez Alonso, Julián C. Rivas-Gonzalo and Celestino Santos-Buelga  
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### Abstract

The anthocyanin composition was analysed in strawberry fruits from five different cultivars (*cv. Eris, Oso Grande, Carisma, Tudnew* and *Camarosa*). Twenty-five defined anthocyanin pigments were detected, most of them containing Pelargonidin (Pg) as aglycone; some cyanidin (Cy) derivatives were also found. Glucose and rutinose were the usual substituting sugars, although arabinose and rhamnose were also tentatively identified; some minor anthocyanins showed acylation with aliphatic acids. A relevant aspect was the detection of anthocyanin-derived pigments, namely 5-carboxypyranopelargonidin-3-glucoside and four condensed pigments containing C–C linked anthocyanin (Pg) and flavanol (catechin and afzelechin) residues. Total anthocyanin content ranged between 200 and 600 mg kg<sup>-1</sup>, with Pg 3-gluc constituting 77–90% of the anthocyanins in the strawberry extracts followed by Pg 3-rut (6–11%) and Cy 3-gluc (3–10%). A notable variability was found among the anthocyanin concentrations in samples of a same variety and harvest, indicating a strongly influence of the degree of maturity, edaphic-climatic factors and post-harvest storage.