

quercetogetin (myrcetin?) were also present as revealed by mass spectral information. In addition, a fluorescent spot, probably phenolic in nature, was observed on chromatograms, with an Rf value of 0.18 in BAW (4:1:5). Its exact chemical nature is not yet known.

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2. Differential action of intensifier gene.

Quantitative estimations of pigments from various double mutant combinations of the homozygous recessive intensifier gene, such as in bz₁; in bz₂; in a₁; in a₂; in Pr, from single mutants such as a₁; a₂; bz₁; bz₂, and from dominant A C R tissue have been made to determine whether the action of the homozygous recessive intensifier gene in enhancing pigment levels is uniform in all combinations. It was consistently found, through O.D. values, that recessive in increases the pigment levels in the descending order Pr, bz₁, bz₂ and a₂, whereas there is no statistically significant increase in in a₁ tissue. It seems that in increases the anthocyanins, d-deoxyanthocyanin and leucoanthocyanidin, which are known to be either the end products of the pathway or synthesized very late (leucoanthocyanidin) in the pathway. However, homozygous recessive intensifier does not boost the levels of the flavonol pigment.

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3. Analysis of developing kernels.

A C R Pr plants were self fertilized and ears were harvested periodically 15-20 days after pollination. Colorless seeds from surface sterilized cobs were analyzed for suspected intermediates in anthocyanin synthesis. It was observed that 15 day old aleurone tissue extracts revealed the presence of quercetin and leucoanthocyanidin. No flavonoid pigment was detected in aleurone tissue of 10-14 day old kernels. Quantitative studies on the levels of various flavonoid pigments and their suspected precursors in the developing aleurone tissue are in progress.

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