activity of the opaque gene. The presence of more bands and RNase isozymes in \( S_{-2} \) suggests a higher activity compared with \( S_{+} \) or opaque-2; however, the \( S_{+} \) exhibits a higher RNase activity compared to normal or opaque-2, which may be due to genotypic differences.

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2. Luteolinidin in aleurone tissue of the \( \text{bz}_{1} \) mutant.

By using chromatographic (BAW, Forestal), spectrophotometric and chemical techniques, it was found that hydrolysates of methyl alcohol-HCl extracts of \( \text{bz}_{1} \) aleurone contain an orange-red pigment, Luteolinidin (3-deoxy cyanidin) and apigeninidin (3-deoxy pelargonidin), in addition to a dark brown pigment. However, apigeninidin was present only in trace amounts. These pigments were absent in the hydrolysates of the single mutants \( C^{1}, a_{1}, e, l_{1}, c_{2}, \) and \( a_{2} \) and the double mutants \( C^{1} \text{bz}_{1}, c_{1} \text{bz}_{1}, a_{1} \text{bz}_{1}, \) and \( a_{2} \text{bz}_{1} \). The \( a_{2} \text{bz}_{1} \) hydrolysate yielded cyanidin chloride as a result of conversion of the Leucocyanidin. The double mutant, in \( \text{bz}_{1} \), has shown about a fivefold increase in pigment as determined by a Klett Summersson photoelectric colorimeter.

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3. Chemical nature of an induced salmon silk mutant.

A salmon silk mutant induced by DES in opaque-2 material was subjected to chromatographic, spectrophotometric, and chemical techniques and it was found that the hydrolysates of a methyl alcohol-HCl extract of fresh silks contain an orange-red pigment, Luteolinidin.

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