

third leaf stage, particularly in the younger (most recently developed) tissues. "Repression" may not be the right word to use for this Pl effect, but it seems clear that Pl can prevent or retard pigment formation in plant parts capable of producing pigment in the absence of Pl, just as it can condition or enhance pigment production in other parts of the same plant (e.g. cob, anthers, etc.).

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3. C-glycosylflavones.

Levings and Stuber (Genetics 69: 491-498, 1971) have recently reported that luteolin derivatives have been found in silks that respond to cutting by turning brown at the point of injury. One of these derivatives was identified as an isoorientin derivative, a C-glycosylflavone.

We have found that, in our W22 strains, there is an abundance of C-glycosylflavones in the hydrolyzed extracts of the silks, anthers, and tassel glumes of a₁ A₂ R^r plants, and moderate amounts in hydrolyzed extracts of silks and tassel glumes (but not anthers) of bz₁ and A₁ a₂ R^r plants. We have found C-glycosylflavones in the hydrolyzed extract of tassel glumes from all stocks tested thus far, but we have not yet detected any in the extracts of leaf sheaths.

Two of these compounds have been tentatively identified as C-glycosylflavones based on luteolin from the following spectral properties and Rf values:

	<u>λ max in MeOH</u>	<u>Rf values in</u>	
		<u>BAW</u>	<u>15% HOAc</u>
#1	256, 271, 349	15	14
#2	258, 269, 350	24	26

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