Acid hydrolysis of methyl solaplumbin. Methyl solaplumbin (150 mg) was refluxed with 10% H_2SO_4 in 50% MeOH (10 ml) for 4 hr. Methyl sugars were examined by CO–GLC as 2,3,4,6-tetramethyl glucose and 2,3-dimethyl rhamnose.

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PELARGONIDIN IN THE FLOWERS OF A MUTANT OF *PETUNIA HYBRIDA*

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The flowers of *Petunia hybrida* and its numerous horticultural forms contain many different anthocyanins[1-3] but, so far, glycosides of pelargonidin have not been found. Mutagenic treatments[4] applied to cyanidin and quercetin lines yielded carriers of a recessive mutation (*k*) which promotes the synthesis of kaempferol at the expense of quercetin. The mutant gene *k* also seems to be responsible for a decrease in anthocyanin production.

By selection of these "kaempferol" lines, we have obtained plants containing a mixture of the 3-monoglucosides of pelargonidin, cyanidin and paeonidin. The different lines do not synthesize the same relative quantities of pelargonidin: in the best case, pelargonidin is produced in approximately the same amount as the other two pigments. However, pelargonidin carriers cannot be identified through flower color. It is hoped that selection will provide flowers with higher pelargonidin content which could lead to new color varieties of *Petunia*.

EXPERIMENTAL

The anthocyanins were extracted from the petals by grinding in MeOH + 1% HCl. The anthocyanidins were separated by 2-D cellulose TLC,[5] after acid hydrolysis of the anthocyanins, in HCl–HCOOH–H_2O (1:10:1) and AmOH–HOAc–H_2O (2:2:1). The anthocyanins were identified by PC. Pelargonidin glycoside was purified in BAW (2x) BuOH–HCl 2 N, 1% HCl, HOAc–HCl.[6] A pelargonidin-3-glucoside marker was obtained by partial hydrolysis of pelargonidin-3,5-diglucoside extracted from petals of the rose variety "Miss France".[7] Flavonols were identified by cellulose TLC after acid hydrolysis in HCl–HCOOH–H_2O (1:10:3).

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