

## Anthocyanin Sectors in Leaves of *Medicago truncatula*

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Sectors were observed in about 2 percent of the leaves of an F3 plant of 'Caliph' × 'Jemalong'. Sectors occurred in the lower epidermis, along with the random streaks of anthocyanin typical of Caliph. The plant was growing in an outdoor cold frame in the fall of 2004 at Madison, WI. Hence, it had been exposed to cool night temperatures during leaf development. The plant was moved to the greenhouse about November 1, 2004 to complete seed production, and sectoring was not observed in leaves differentiated in the greenhouse.

Similar large sectors are observed in alfalfa possessing the mutable allele C2-m2. A white flower with a purple sector from an alfalfa C2-m2 genotype is shown on the home page of this website. In alfalfa, which produces anthocyanins in both the flowers and leaves, such large sectors occur when the allele mutates early in development due to excision of a transposable element.

References to mutable alleles in alfalfa can be found in a review by Clement in Volume 1 of this website. It will be interesting to eventually learn if the sectors in the following three pictures of *M. truncatula* are due to a system similar to that in alfalfa.



