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The timing of flowering in plants is affected by a wide range of hormonal, environmental and genetic factors. The semidominant *fwa* mutants are delayed in the transition to flowering. In the October *Molecular Cell*, Soppe *et al.* use positional cloning to isolate the *Arabidopsis* FWA gene, which encodes a homeodomain-containing protein (*Molecular Cell* 2000, **6**:791-802). The late-flowering phenotype of the *fwa* mutants is caused by gain-of-function epi-alleles. Soppe *et al.* could find no differences in the genomic DNA sequence of the *FWA* gene. They show, however, that expression of the *FWA* gene is suppressed in mature wild-type plants because of extensive CG methylation and that ectopic expression in *fwa* mutants is characterized by stable hypomethylation of directly repeated sequences in the 5' region of the gene. These results provide insights into epigenetic regulation and represent good news for florists trying to understand the timing of flowering.

References

1. A genetic and physiological analysis of late flowering mutants in *Arabidopsis thaliana*.
2. *Molecular Cell*, [<http://www.molecule.org/>]
3. The *Arabidopsis* Information Resource, [<http://www.arabidopsis.org/>]
4. DNA methylation, a key regulator of plant development and other processes.

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