ON THE COVER

While in most plant species, the switch to flowering is very stable, a few species and mutant plants switch back from flower to leaf production, which is termed floral reversion. In the model plant Arabidopsis thaliana, Müller-Xing et al. (pages 2457–2471) studied mutants for Polycomb-group (Pc-G) genes that encode epigenetic regulators for their role in maintaining floral induction. They revealed a key function for Pc-G proteins, as the mutants show floral reversion when plants are shifted from flowering inducing to noninducing conditions. Thus, Pc-G mutants do not remember induction of flowering and revert back to a previous stage in their lifecycle. The cover shows floral reversion in the Arabidopsis line clf-28 swn-7 CLFpro:CLF-GR (left) after a shift to short-day conditions and naturally occurring floral reversion in the ornamental plant Crown Imperial (Fritillaria imperialis; right; photo by Qian Xing).

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