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On the Cover: Developing barley (*Hordeum vulgare*) spike carrying recessive mutations at the *ROBIGINOSUM1*, *SIX-ROWED SPIKE1*, and *ALBINO LEMMA* loci. Original mutants along with more than 800 others representing most of the developmental variation in barley were chosen to generate a collection of backcross-derived lines with cv Bowman as a recurrent parent. In this issue, Druka et al. (pp. 617–627) describe genotyping of this collection with up to 3,000 gene-based markers detecting relatively small introgressions for one-half of the lines. This enabled prediction of the gene content through the conservation of synteny with model cereal genomes, providing a route to rapid gene identification. Photograph: Arnis Druka.

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[W] Indicates Web-only data.

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