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Cover illustration: The inset cover image shows the bunch of a new AAB banana hybrid. Edible bananas have originated mainly from two wild species, *Musa acuminata* (AA) and *M. balbisiana* (BB), and triploid cultivars with an AAA, AAB or ABB genome are the most widely used. The possibility of chromosome exchanges between *M. acuminata* and *M. balbisiana* opens new avenues for the reciprocal use of valuable sources of alleles in the two species. See Jeridi *et al.* (pp. 1593–1606).

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