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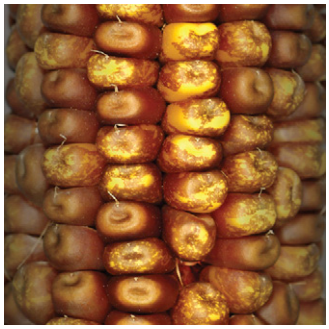
ON THE COVER



DNA transposons are efficient chromosome restructurers. Paired transposons, a common transposition outcome, cause chromosome breaks with frequencies inversely related to the distance between them. Huang and Dooner (pages 2019–2032) show that, in addition to breaks, transposon pairs in direct orientation produce many heritable rearrangements, including transposition of a macrotransposon extending from the 5′ end of one transposon to the 3′ end of the other. Chromosome breaks and rearrangements can be explained by transposition reactions involving either the two internal or two external ends of the macrotransposon. The cover shows the mosaic color of maize kernels undergoing breakage-fusion-bridge cycles, which are initiated by transposition of the macrotransposon's internal ends from one chromatid to its sister. The mosaic pattern results from transposon activity at the *bronze* locus, which is associated with anthocyanin biosynthesis in the kernel (cover artwork by Tanakiat Tungsuchat and Jun Huang).

IN THIS ISSUE

IN BRIEF

PERSPECTIVE

RESEARCH ARTICLES

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