Brachypodium distachyon is a temperate C₃ grass that has emerged as a plant biology model, suitable for laboratory studies to inform research on cereals, forage, and bioenergy crops. With a short seed-to-seed life cycle (~6 to 8 weeks), a small genome (~272 Mb), and a growing number of functional genetics resources, *B. distachyon* is accelerating fundamental studies of economically significant grasses. *B. distachyon* is also host for plant pathogens, including viruses. Mandadi and Scholthof (pages 71–85) characterize the genome-wide alternative splicing landscapes in *B. distachyon* infected with *Panicum* mosaic virus alone or with its satellite virus. Using next-generation RNA-sequencing and bioinformatics approaches, they discovered thousands of previously unannotated transcripts and alternative splicing of ~100 defense-related genes modulated during virus infection. The cover image shows mature 5-week-old *B. distachyon* plants.
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