

THE PLANT CELL

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ON THE COVER



Setaria viridis (green millet) is the wild relative of cultivated foxtail millet (*Setaria italica*) and an emerging model system for panicoid grasses, including cereal crops such as maize and sugarcane. *S. viridis* produces sterile bristles in the inflorescences, which apparently arise from the same developmental program as the grain-bearing spikelets. Yang et al. (pages 48–66) report on an *S. viridis* mutant that produces few to no bristles due to disruption of a spatially restricted brassinosteroid (BR) biosynthesis gene that is sufficient for homeotic conversion of bristles to spikelets. Thus, bristles arise from suppression of the spikelet identity program, followed by rapid elongation and loss of meristem activity, which is dependent on BRs in a spatiotemporal manner. The work provides insight into the molecular basis underlying variation in inflorescence architecture in grasses and molecular targets for enhancing yield potential in millets. The cover image shows the complex morphology of an *S. viridis* panicle at anthesis, with sterile bristles interspersed with fertile spikelets.

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[OPEN](#) Articles can be viewed without a subscription.



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