On the Cover: Strawberry (Fragaria × ananassa) fruit flavor and aroma are among the most appreciated quality traits by consumers; as such, the improvement of strawberry aroma is receiving increasing importance in breeding programs. However, breeding for better aroma, particularly in polyploid crops, presents many challenges and requires a previous knowledge of the genetic determinants controlling its variation. More than 300 volatile compounds have been detected in strawberry, although the regulatory mechanisms controlling their content remain largely unknown. In this issue, Zorrilla-Fontanesi et al. (pp. 851–870) carried out a metabolomic and genetic analysis of strawberry fruit volatiles and identified genomic regions controlling their variation. Using a candidate gene approach and molecular analyses, their study further shows that the gene FaOMT is the locus controlling natural variation on mesifurane content and identifies a polymorphism in its promoter that is likely responsible for both driving high FaOMT expression in ripe strawberry receptacle and mesifurane production. The cover picture depicts a strawberry field in Huelva, Spain, where the mapping population was grown and where more than 95% of Spanish strawberry fruit is produced. Below, the graph shows total ion counts of a gas chromatography-mass spectrometry chromatogram of the volatile fraction from ripe strawberry fruit. Image and design by José L. Rambla and Iraida Amaya.

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The cover image by Nick Sloff includes an aphid image adapted from a drawing by Thomas Degen (www.thomas-degen.ch) and an image of plant cells adapted from a drawing by Kerry Mauck. 872

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