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ON THE COVER

Grain morphology has been an important agronomic trait even in very early farming societies. Gegas et al. (pages 1046–1056) identified the genetic components that underlie the variation in grain size and shape in modern elite wheat. A comprehensive survey of the variation in grain morphology in modern and ancestral wheat indicates the occurrence of significant, and surprisingly recent, bottlenecks in the evolution of modern hexaploid wheat. This work provides an important advance in understanding the genetic and historical basis of natural diversity of grain traits in domesticated wheat. The cover image shows the diversity in grain morphology in the genus *Triticeae* with an illustration of a modern hexaploid wheat spike in the background.

IN BRIEF

PERSPECTIVE: SPECIAL SERIES ON LARGE-SCALE BIOLOGY

REVIEWS

RESEARCH ARTICLES

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22 (4)
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