

## GUEST EDITORIAL

I am pleased to present this thematic issue of *Seed Science Research* on seed dormancy. This peer-reviewed special issue was designed to present to the *Seed Science Research* readership original research articles, reviews and opinion papers related to seed dormancy. It offers a broad overview of topics that involve the various types of seed dormancy, including physical dormancy, morphophysiological dormancy and physiological dormancy, as well as both primary and secondary dormancy, and the relation between these two dormancy types. There is a focus on the role of the environment on the levels of dormancy, which is very timely in this era when a large part of the research is related to the changing climate. Auge *et al.* make clear, for example, that the interaction of seed maturation temperature, afterripening and post-dispersal conditions, together, determine the time of the year of seed germination. In this respect the genotype also plays an important role, due to within-species adaptation to the local environment (Huang *et al.*).

Moreover, temperature affects both dormancy and germination, and to distinguish between these two effects Battla and Benech-Arnold constructed a conceptual framework that can help us better understand these mixed effects of temperature. Most of the submitted articles have a physiological focus, for which many germination experiments have been performed. However, this special issue also includes a molecular analysis by Née *et al.*, in which the earlier identified dormancy master regulator *DELAY OF GERMINATION 1 (DOG1)* is studied in more detail. This suggests a role for *DOG1* in the induction of secondary dormancy in *Brassica napus*. Overall, I hope that we have succeeded in bringing together an informative and interesting issue, for which I would like to thank all the contributors. I am also grateful to Dr Henk Hilhorst, for inviting me to edit this issue and for facilitating the editorial process. Special thanks are also due to all the reviewers for their criticisms and suggestions, without which this issue would not have been possible.

Leónie Bentsink  
Wageningen Seed Laboratory, Laboratory of  
Plant Physiology, Wageningen University,  
Wageningen, The Netherlands