



Vigour Committee Report 2023

Hulya Ilbi (Vice Chair)
Verona Italy
2023

Vigour Committee Members

CHAIR: Alison Powell	United Kingdom
VICE-CHAIR: Hulya Ilbi	Turkey
I-Chen Cheng	Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu
Ibrahim Demir	Turkey
Carina Gallo	Argentina
Simon Goertz	Germany
G.V. Jagadish	India
Mohammad Khajeh Hosseini	Iran
Jaana Laurila	Finland
Tim Loeffler	United States
Stan Matthews	United Kingdom
Carey Matthiessen	Canada
Gillian McLaren	United Kingdom
Takashi Shinohara	Japan
Marie-Hélène Wagner	France
Yan Rong Wang	China

Dr Yanrong Wang: 1957- 2023

Professor, College of Pastoral Agriculture Science and Technology, Lanzhou University, China

Director of the Herbage Seed Testing Centre in Lanzhou

1987: Master's Degree in Seed Technology, Massey University

2003: PhD in Seed Physiology, Nanjing Agricultural University

> 200 scientific papers; 40 postgraduate students



ISTA

Germination Committee: 1992-1998

Vigour Committee 1992 –

Notable work in Vigour Committee:

Radicle emergence: forage species, *Elymus nutans*, *Avena sativa*

Flow cytometry: related 2C:4C DNA to vigour: alfalfa, white clover

EC test: absence of semi permeable membrane in grass species may facilitate EC test

Radicle emergence test

Soybean: Carina Gallo, Argentina

- Comparative test completed, second draft of validation report in preparation

Onion: Hulya Ilbi, Turkey; Dr Jagadish, India

- Seed material sourced, comparative test in preparation

Barley : Simon Goertz, Germany

- Field trials and laboratory work almost complete

Workshop:

Tetrazolium vigour method for *Glycine max*, Oliveros, Argentina: Carina Gallo

Special project:

Vigour of seed following organic production : Mohammad Khajeh Hosseini

• Publications

• Radicle emergence and vigour

- Onions: **I. Demir**, C. O. Kuzucu, S. Ermis, N. Memis and N. Kadioglu. *Horticulturae* **8**, 1063, 1-10
- Cucurbit rootstocks: S. Ermis, G. Oktem, K. M, F. R. Hay and **I. Demir**. *Seed Sci. & Technol.*, **50**, 1-10
- Watermelon, lettuce, carrot: S. Mis, S. Ermis, **A. A. Powell** and **I. Demir**. *Seed Sci. & Technol.*, **50**, 257-267
- Two publications in progress from ISTA Special Project 19-3.

• Influence of growing season on vigour

- Dill: O. Alan, D. Kanturer, **A. A. Powell** and **H. Ilbi**. *Seed Sci. & Technol.*, **50**, 11-20.

• Review

Seed vigour in the 21st century. **A.A. Powell**. *Seed Sci. & Technol.*, **50**, Supplement 1, 45-73

• Revised Vigour Test Handbook

- Illustrations being collected for completed chapters

- Presentations: all ISTA Seed Symposium (2022)

- 13 contributions from Vigour Committee

- Oral papers (3)

- *Brassica* species (RGB imaging):

- Takashi Shinohara , Sylvie Ducournau , Stan Matthews , Marie-Hélène Wagner and Alison Powell

- *Brassica oleracea* (Multispectral imaging) :

- Marie-Hélène Wagner, Audrey Dupont, Stan Matthews, Alison Powell, Takashi Shinohara, Sylvie Ducournau

- *Fritillaria*

- Mohammad Khajeh Hosseini and H. Sharifi

ISTA Special
project 19-3



Publications and presentations



- Presentations: all ISTA Seed Symposium (2022)
 - 13 contributions from Vigour Committee
 - Poster papers (10)
 - Mohammad Khajeh Hosseini and colleagues: 4 posters
 - I-Cheng Chen and colleagues: 3 posters
 - Carina Gallo: 1 poster
 - Hulya Ilbi: 1 poster
 - Simon Goertz: 1 poster



Thank you!



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