

## Working document – July 2012

# Protocol for dormancy breaking, viability testing and multiplication of *Aegilops* and other wild cereals

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### Dormancy breaking

Seeds kept in cold storage (-18°C) for at least one year, preferably two, after harvest do not require special treatment.

For germination tests that are carried out right after harvest, seeds should be left to dry for one month. The dry seeds should be imbibed with tap water and kept on moist filter paper in a dark place at 4°C for 4 days before the germination test.

### Germination test

About 50–100 seeds are placed between two stripes of wet filter paper (ISTA) standing on Jacobsen apparatus. Temperatures are maintained at  $25 \pm 2^\circ\text{C}$  during the day (14h) and  $23 \pm 2^\circ\text{C}$  at night (10h).

Germination is scored according to ISTA rules after 8 days. If the accession contains only a small quantity of seeds, the test sample can be small, around 20 seeds.

### Regeneration

Sowing: 20–120 seeds (without fungicide treatment) in seed trays.

The seed trays are placed in a frost-free cold greenhouse for 6–8 weeks.

Planting: 20-120 plants into soil using 4-m<sup>2</sup> plots isolated from each other; wind pollination.

Harvest: by hand.

Threshing: small threshing machine or by hand.

Drying: 2 weeks in drying chamber (20°C, 10% relative humidity).

Sowing and harvesting are carried out at approximately the same time as cultivated wheat.

### Web site

ISTA: International Seed Testing Association <http://www.seedtest.org/en/home.html>