

**FAMILY: MALVACEAE II**Genera: *Gossypium***1. PRECONDITIONING:**

METHOD	TIME (hrs)	TEMP (°C)
imbibe acid delinted seed on moist rolled towels / imbibe non-acid delinted seed in water or on rolled towels	overnight to 24	20-25

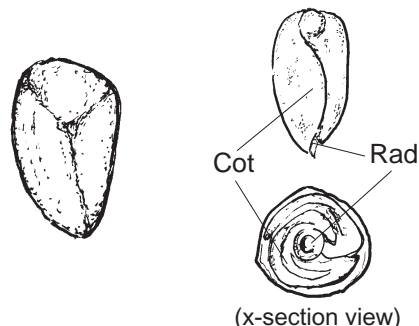
**Morphology**

Fig 1 External

Fig 2 Embryo

Notes: Acid delinted seed imbibed in free water may show extensive acid damage. Hard seed may be present (see section 5.3). Seed may need scarification (see sections 6.4 and 8.3.5).

**2. PREPARATION & STAINING:**

METHOD	TZ Conc(%)	TIME (hrs)	TEMP (°C)
remove seed coat with sharp pointed tweezers and imbibe in water at room temp. for 15 minutes. Remove membrane surrounding embryo with sharp pointed tweezers.	1.0	1-2	30-35

Notes:

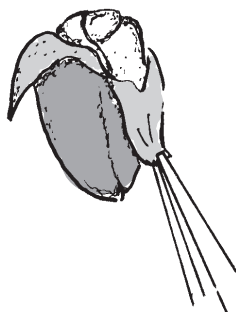


Fig 3 Preparation method

**FAMILY: MALVACEAE II**

**Post Staining Notes:** Drain TZ solution and thoroughly rinse seed with water, (keep seed at 5° C until ready for evaluation).

**3. EVALUATION:****VIABLE (NORMAL STAINING)**

- entire embryo evenly stained (light or dark)
- slight necrotic tissue on cotyledons is acceptable
- radicle tip unstained, provided cotyledons are well stained

**NON-VIABLE (ABNORMAL OR NO STAINING)**

- any essential part of the embryo unstained
- more than a third of cotyledons unstained
- radicle-hypocotyl area predominantly unstained or bruised
- necrotic bands around hypocotyl
- fractured radicle tissue

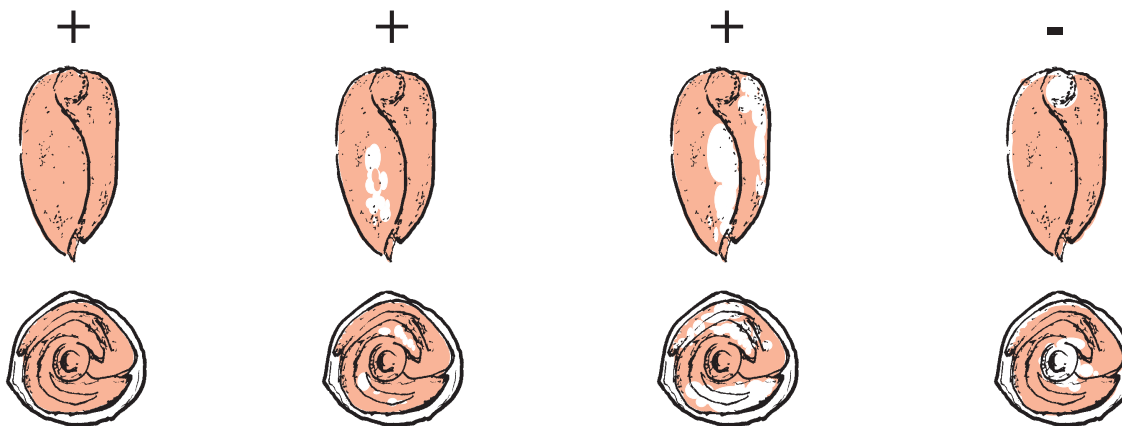


Fig 4 Seed stain evaluation

**REFERENCES:** 2, 6