

FAMILY: CUPRESSACEAE

Genera: *Calocedrus, Chamaecyparis, Cupressus, Juniperus, Platycladus, Thuja*

**1. PRECONDITIONING:**

| METHOD | TIME (hrs) | TEMP (°C) |
|-------------------------|------------|-----------|
| soak in beaker of water | 6-18 | 20-25 |

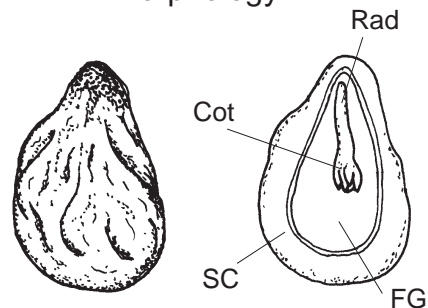
Morphology

Fig 1 External

Fig 2 Embryo

Notes:

**2. PREPARATION & STAINING:**

| METHOD | TZ Conc(%) | TIME (hrs) | TEMP (°C) |
|---|------------|------------|-----------|
| 1. <i>Juniperus</i> and other species (except <i>Calocedrus</i>) - cut laterally above embryo | 1.0 | 6-18 | 30-35 |
| 2. <i>Calocedrus</i> and other species (except <i>Juniperus</i>) - cut longitudinally, leaving seed intact at distal end | 1.0 | 6-18 | 30-35 |

Notes:

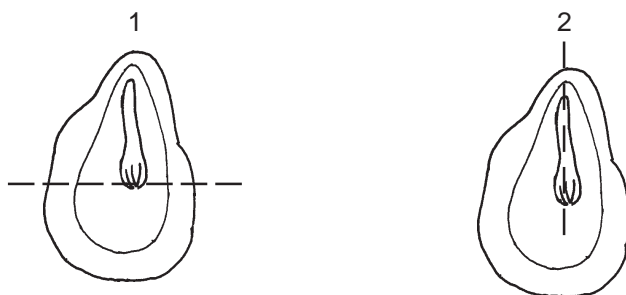


Fig 3 Preparation method

FAMILY: CUPRESSACEAE

Post Staining Notes: Cut longitudinally, completely through embryo.



3. EVALUATION:

VIABLE (NORMAL STAINING)

- radicle completely stained
- hypocotyl completely stained
- cotyledons completely stained
- female gametophyte completely stained, or stained except for small surface necroses

NON-VIABLE (ABNORMAL OR NO STAINING)

- radicle less than completely stained
- hypocotyl less than completely stained
- cotyledons less than completely stained
- female gametophyte with more than small surface necroses unstained

OTHER TISSUE/NOTES

In *Juniperus*, two seeds are often bound together to form a seed unit. Number of “doubles” with two viable seeds must be recorded. (see section 15.1.3.3)

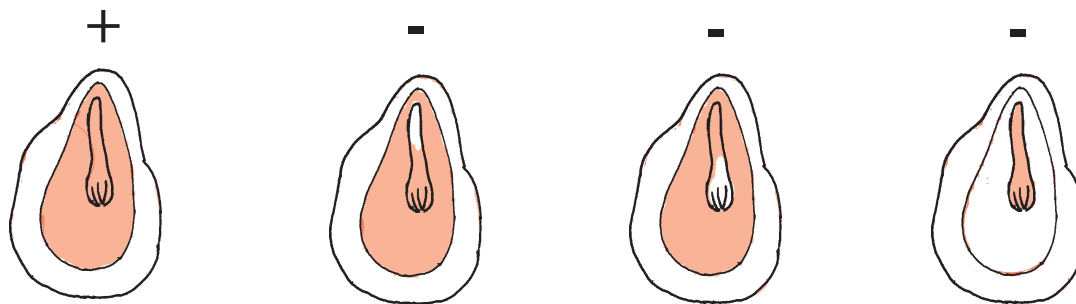


Fig 4 Seed stain evaluation

REFERENCES: 1, 2, 8