

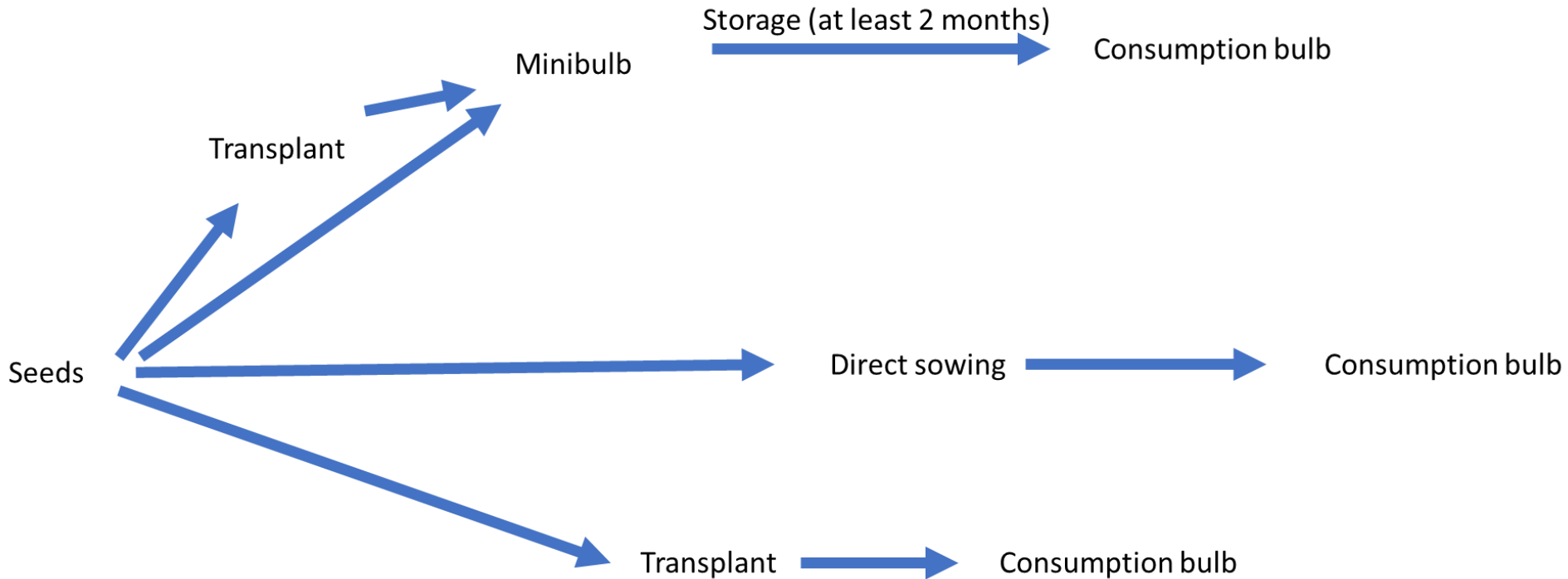
True Shallot Seed applied research

Production technology: from seed to product.



Possible tracks from seed to market

From seed to consumption bulb



Wet season ----- Dry season

Two step cultivation:
Preparing starting material
Producing consumption

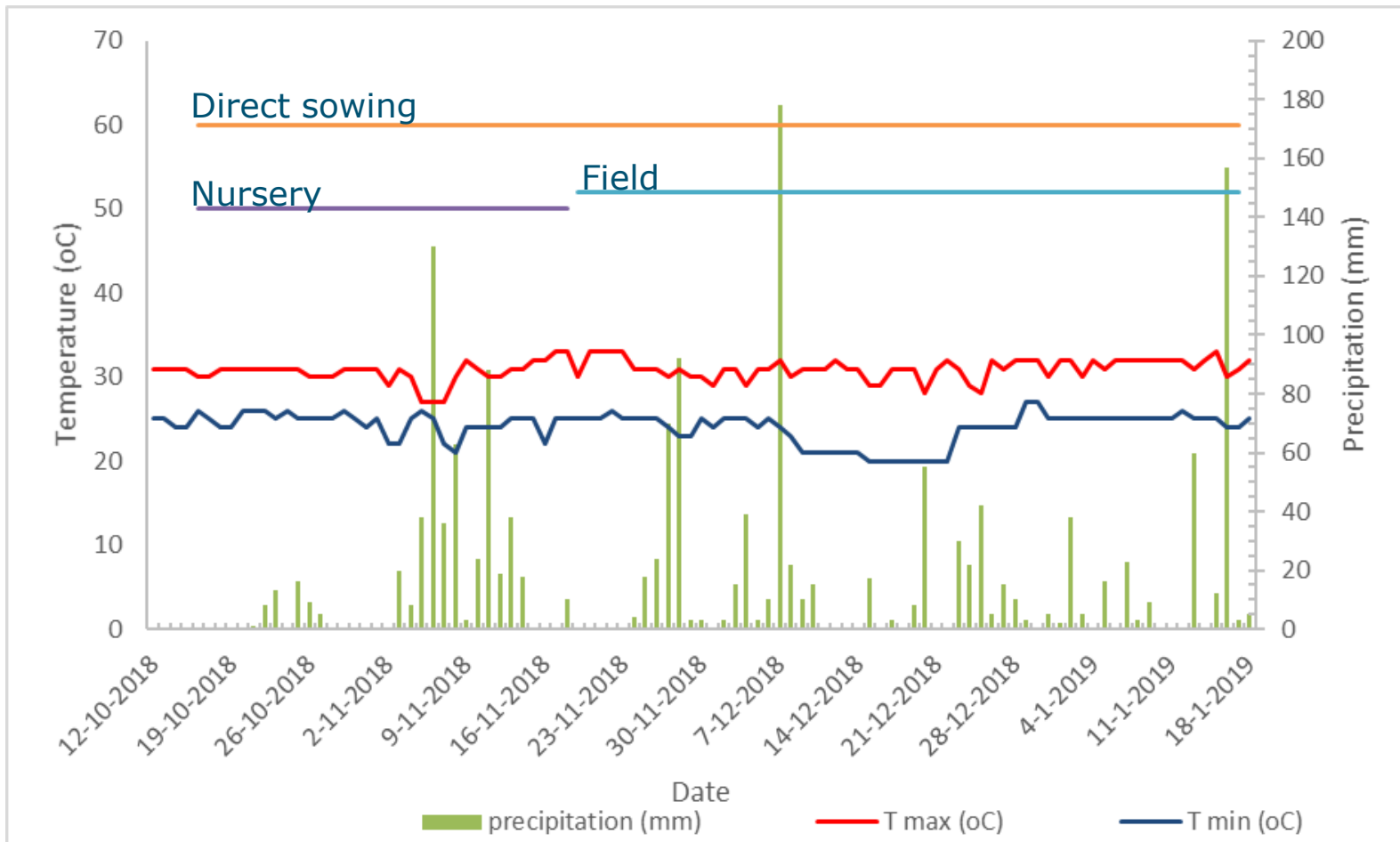
Content

- Producing minibulbs
 - Indramayu (clay) and Lembang (Andosol)
- TSS systems
 - Purwakarta (clay) and Sumbawa (loam)
- Effect of transplant quality
 - Garut (clay)

Tests in 2019

- Purwakarta and Sumbawa
- Production methods:
 - Direct sowing
 - Transplants
 - Minibulbs (Production at Indramayu and Lembang)
- Periods:
 - Early (Start wet to dry season)
 - Mid (dry season)
 - Late (dry season end at begin of wet season)

Minibulb production in the wet season at Indramayu



Producing minibulbs in wet season

Sanren: TKW = 3.8 g

Direct sowing

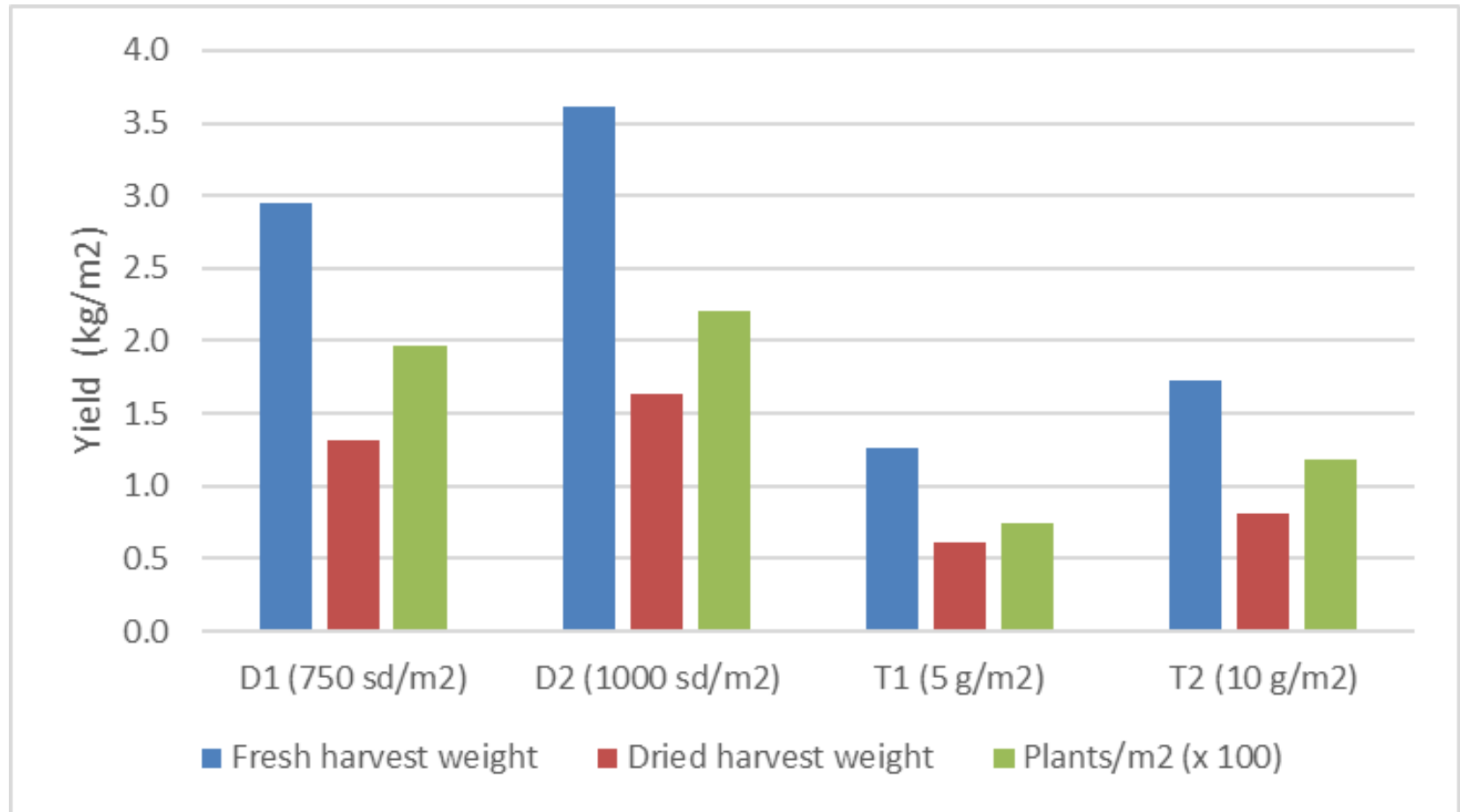
- 700 sd/m²
- 1000 sd/m²

Transplant (nursery phase)

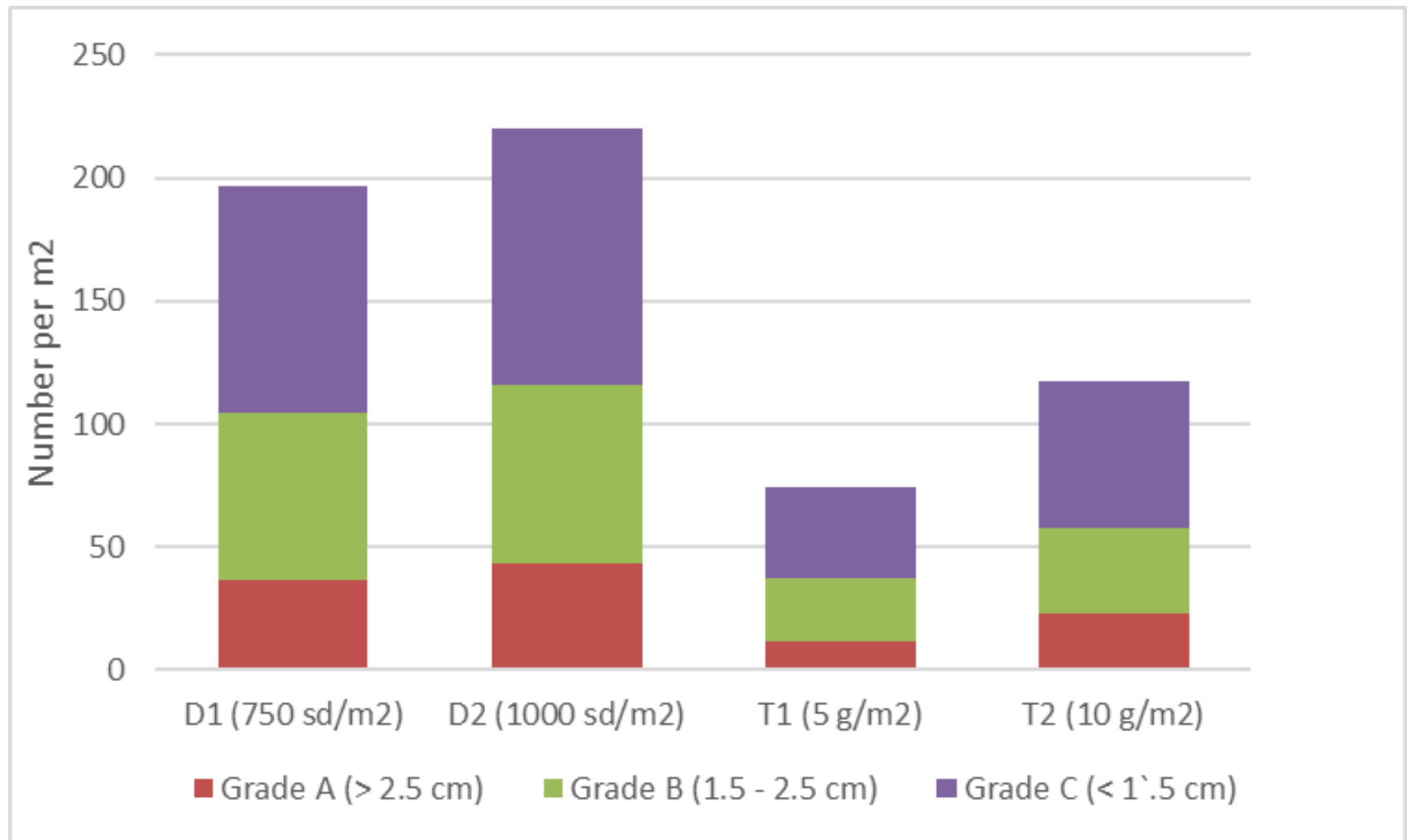
- 5 g/m² (1315 sd/m²)
- 10 g/m² (2630 sd/m²)
- Transplanting at 5 x 10 cm



Minibulb yield



Number of bulbs per grade



Quality.....

- Wet season
- Fusarium and other soil borne issues
- Poor storability



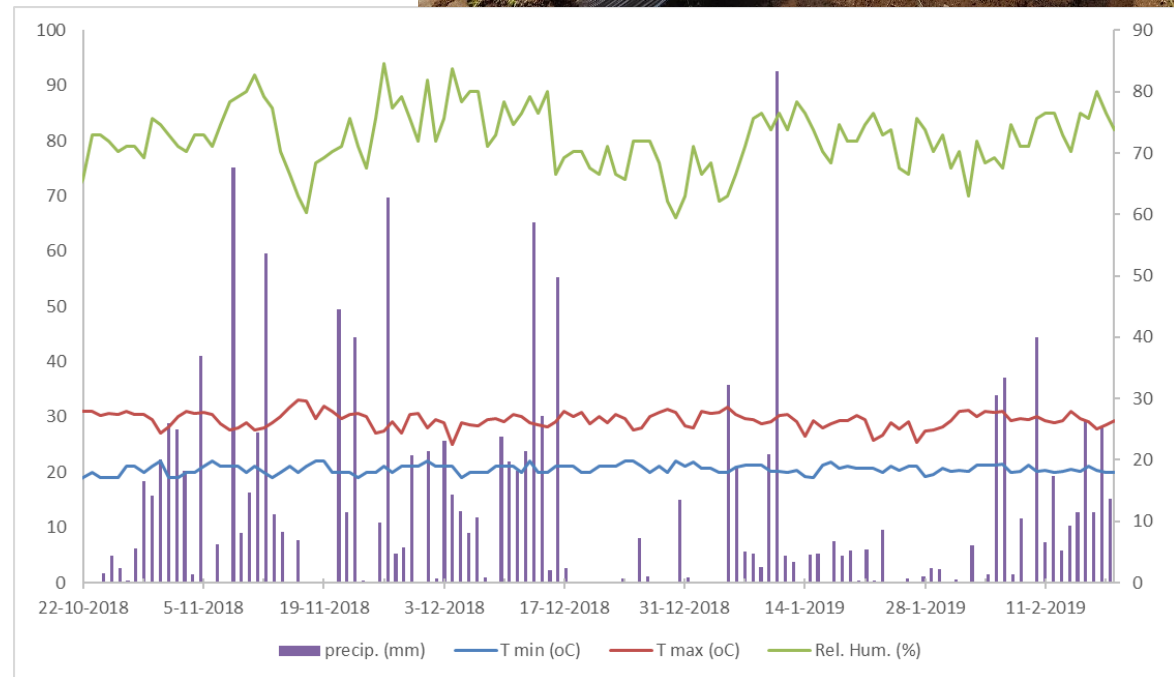
Lembang: minibulb production

■ Varieties

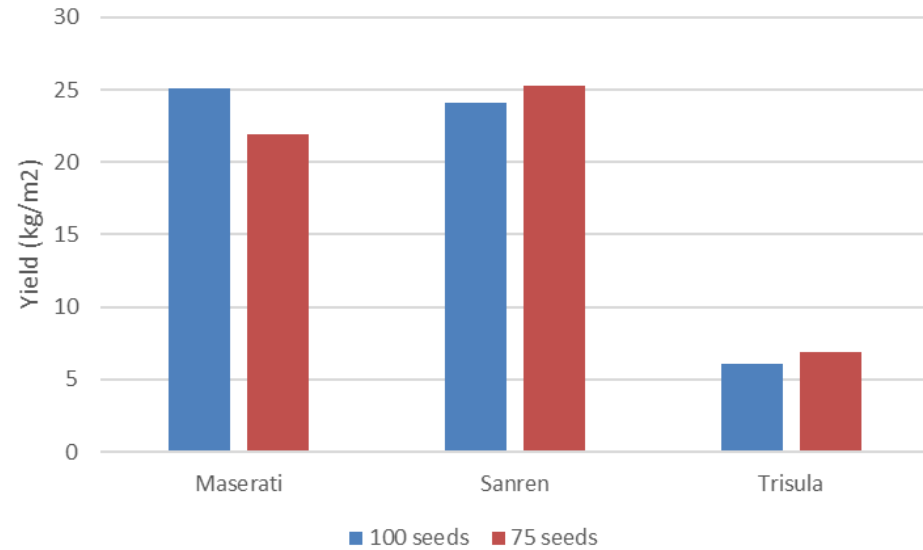
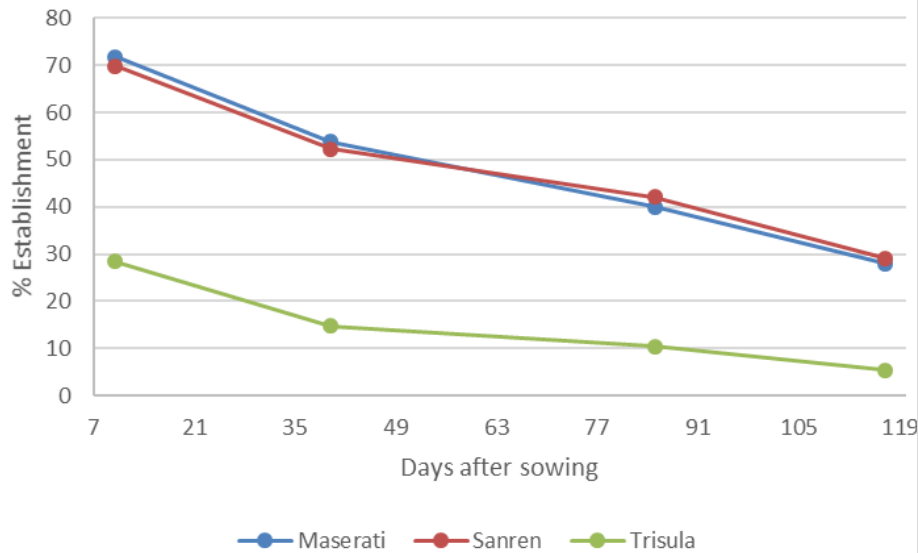
- Trisula
- Sanren
- Maserati

■ Sowing densities:

- 750 sd/m²
- 1000 sd/m²



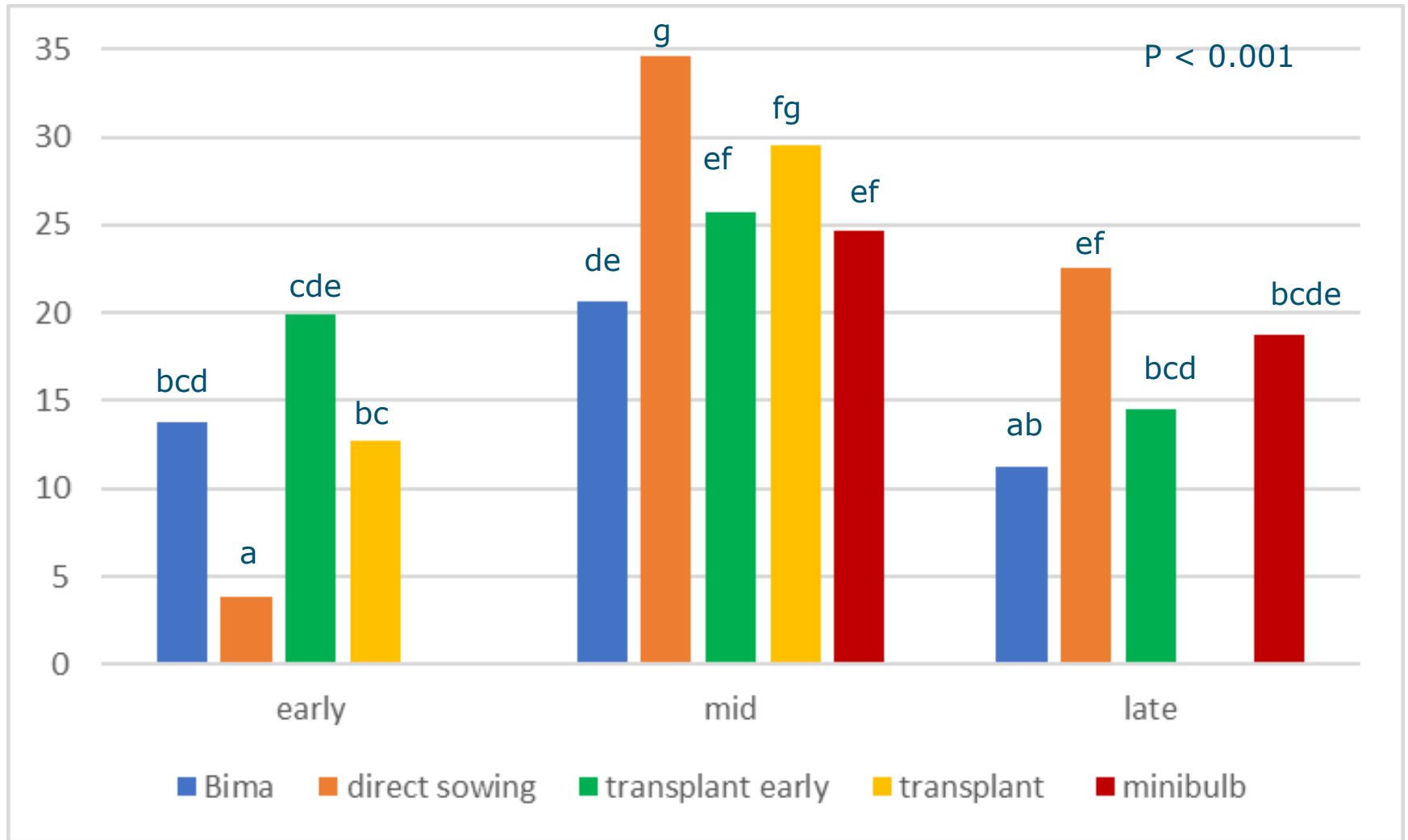
Lembang: seed quality is important



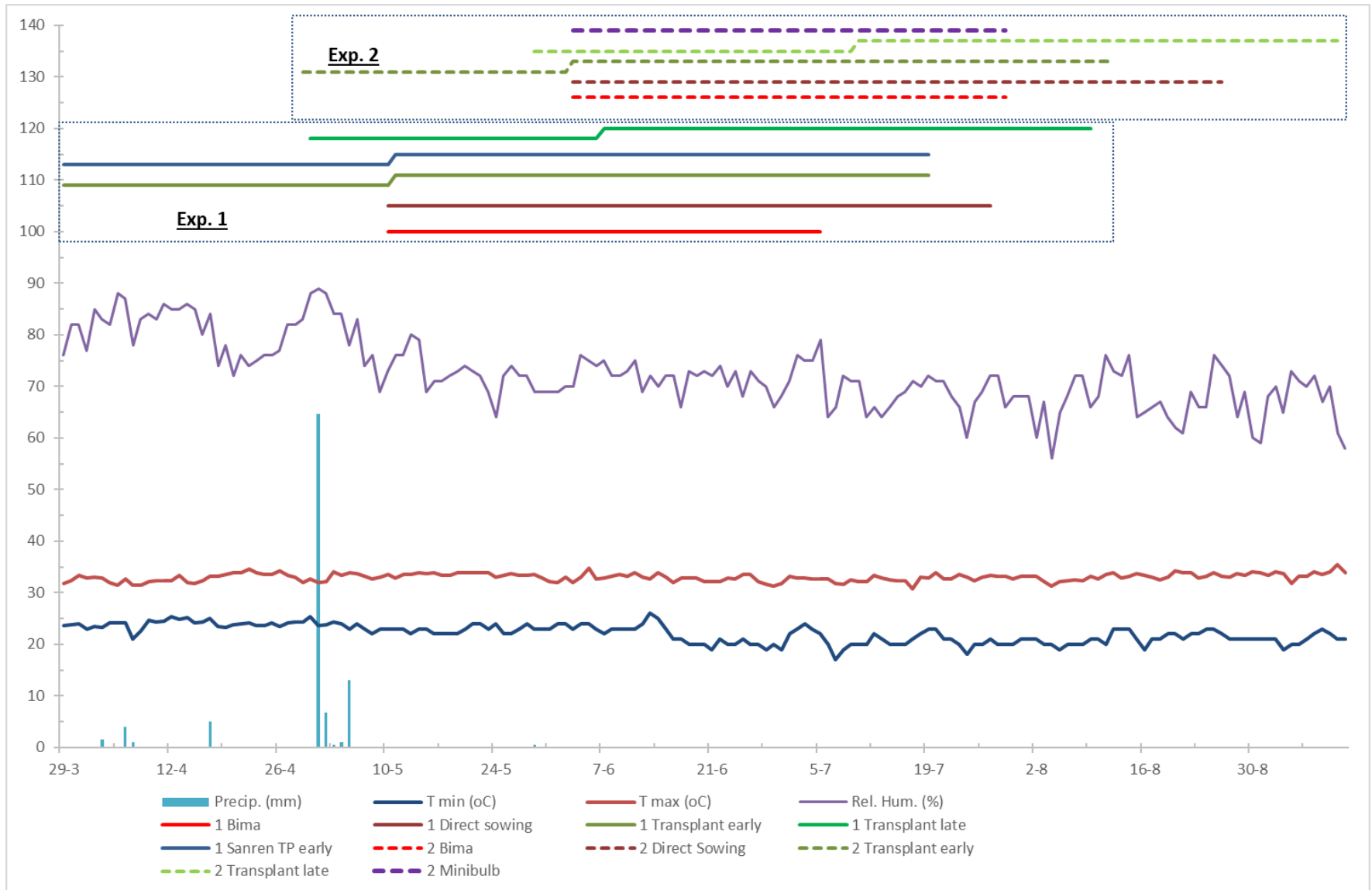
Overview Purwakarta tests



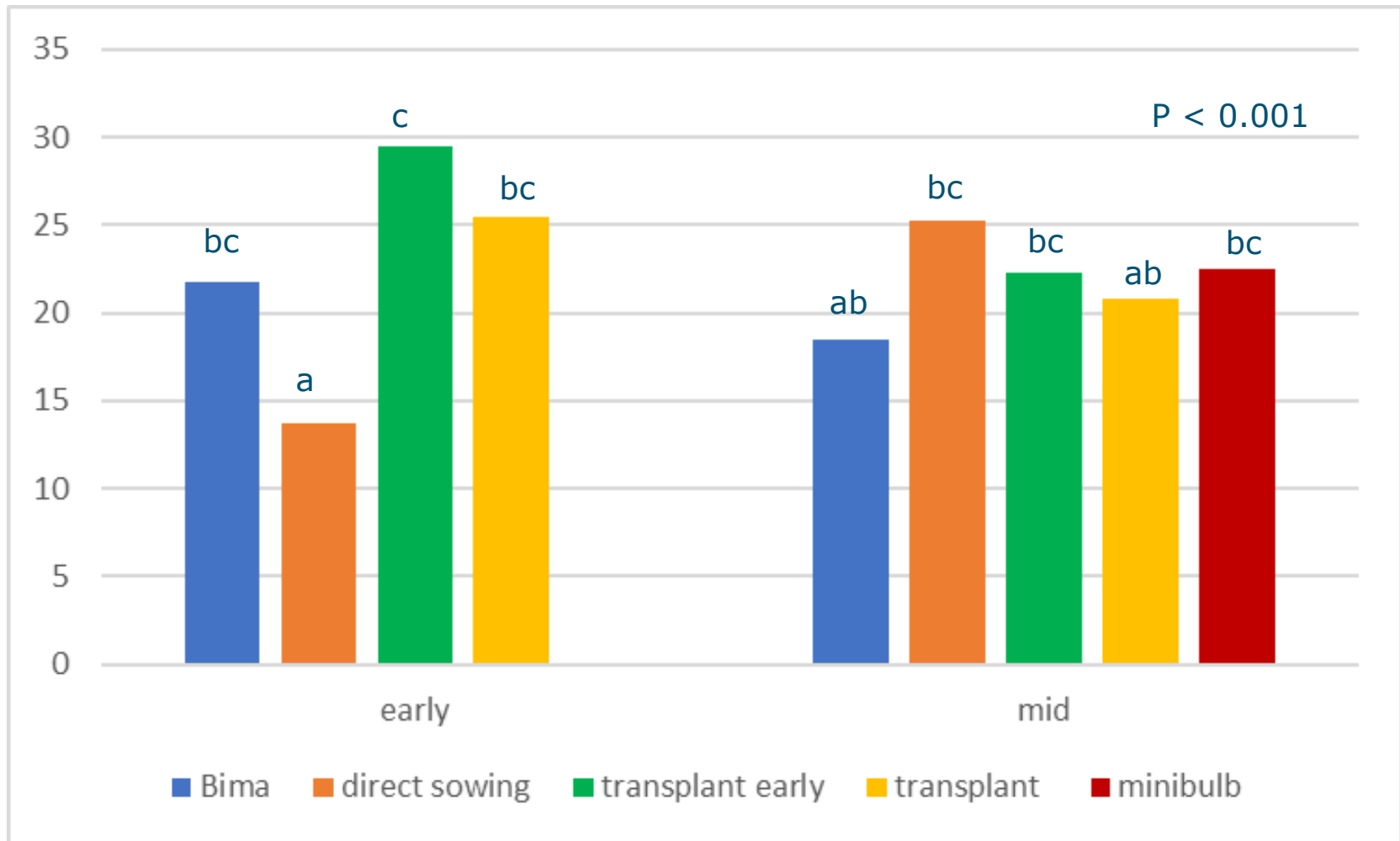
Yield after field drying (ton/ha)



Overview Sumbawa tests



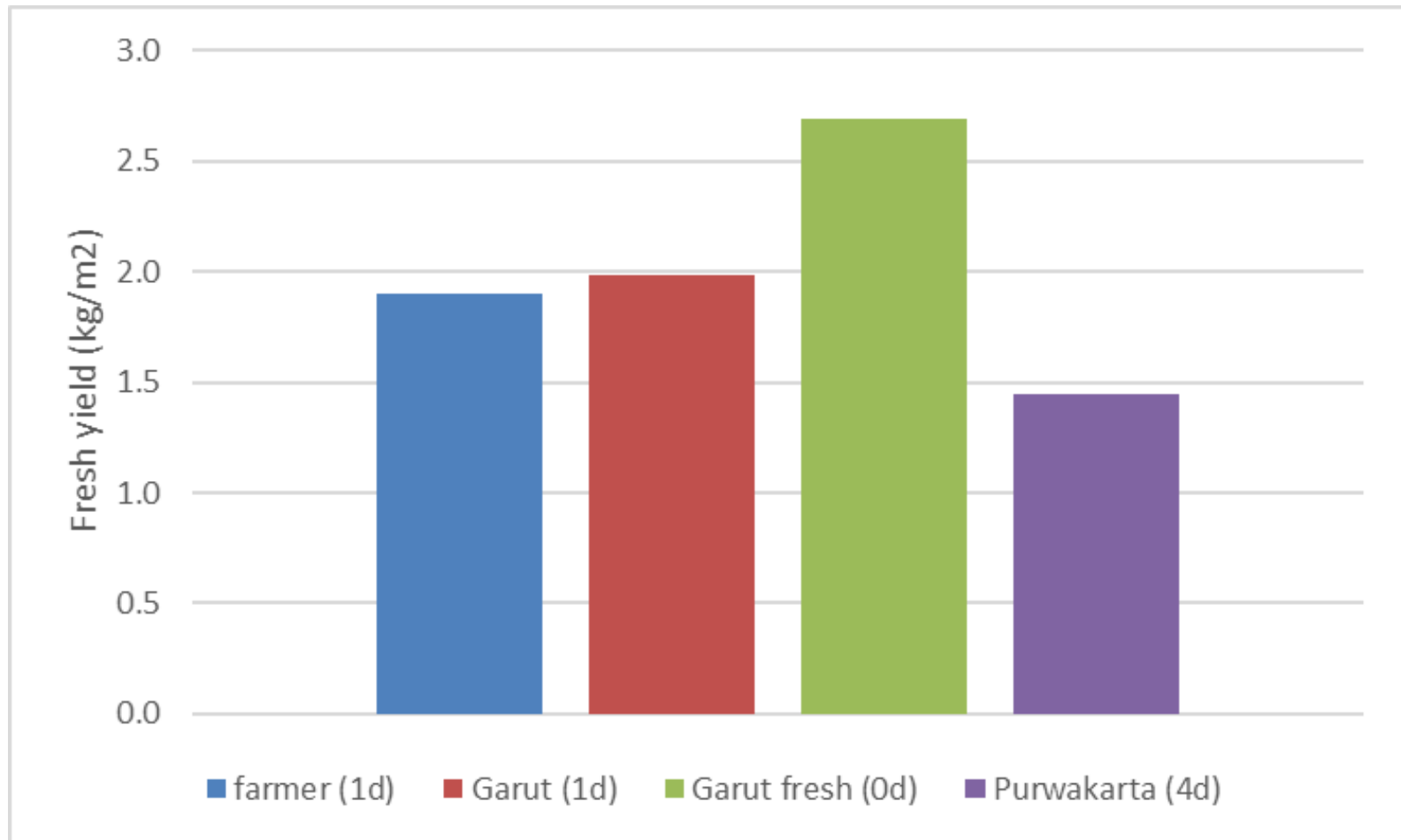
Yield after field drying (ton/ha)



Seedling quality

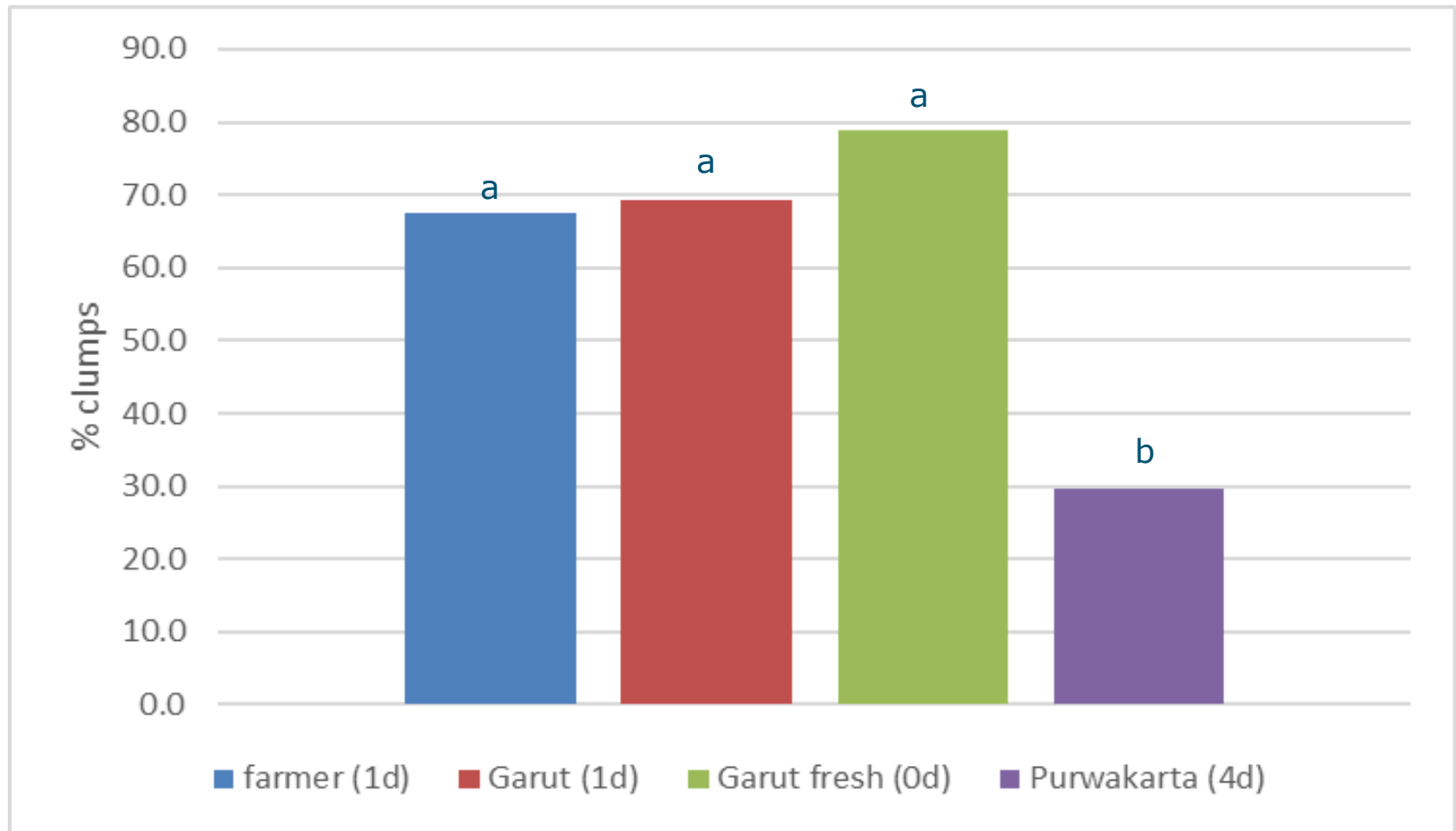


Effect of source and logistics on yield



Fprob=0.19

Effect of source and logistics on plant survival



Conclusions:

- Minibulb production difficult to obtain high quality for storing in wet season.
- TSS direct sowing not suitable for early start
- TSS transplant “ stable results” for all seasons.
- For transplant take care of transplant quality
 - Logistics
 - Age
 - Source (raising method/fertilization/season)

Final considerations

- TSS starting material
 - Additional time needed (conventional just from previous crop)
- Direct sowing
 - Soil type (manual/machine sowing)
 - Weed control
 - Land efficiency lower
- Mini bulb
 - Storage
 - No clear differentiation between starting material and consumption material
- Transplant
 - Buying or raising

Acknowledgements

- These activities were not possible without the contributions of (in random order):
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 - Rob Bekkers (De Groot en Slot)
 - YBTS support staff

Terima kasih banyak

Hope to see in the
near future a
profitable and
sustainable

True Shallot Seed
production

