

Seed increase manual for Beta

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Site characteristics

Longitude: 50°59' N

Latitude: 3° 49' E

Altitude: 11 m

Soil type: luvisol : sandy loam

Mean annual temperature: 9,9 ° C

Mean annual rainfall: 780 mm

	Measure	
Seed preparation		
Sowing	From July till September in the field (35 cm between the rows) or in a heated greenhouse (in the ground or in quick-pots)	
Transplanting	In the greenhouse: 12/ 20° C, supplementary artificial light (16 h)	
Fertilisation	NPK fertiliser, according to need	
Vernalisation	In the greenhouse: from half December (minimum 6 leaves stage) until March in a cold greenhouse (0°C- 3°C). Outdoors: staying in the field and covered when temperature < 0°C.	
Cultivation of seed mother plants	the same	
Effective population size	50 plants	
Pollination control	Isolation greenhouse or spatial isolation in the field, or hemp is used as screen to prevent cross-pollination between accessions	
Pollination method	Wind pollination	
Conditions during seed ripening	In greenhouse : irrigation stops at the end of July.	
Seed harvest procedure	Starts when seeds skin colour of fruits of the upper third of the stem turns from white/yellow to dark brown. Single plants are harvested depending on maturity.	
Pre-processing of seeds	Plants are dried in the field or in the greenhouse under weather conditions,	
Threshing	Threshing machine	
Final processing	Dried :first cold wind, then 22°C to 12% rel. humidity ; polishing, air separator, belt sorting machine.	
Drying before storage		
Storage	Air-tied plastic pots at -10 °C.	
Germination test	4 h rinsing with water; 2 x 100 fruits on folded filter paper, count after 7 days, 20 °C, 8 h light, 16 h dark	
Problems encountered/ Remarks		