

Seed increase manual for Beta

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Site characteristics

Longitude: 01953--E

Latitude: 4722--N

Altitude: 110-115 m above sea level

Soil type: changing

Mean annual temperature: 10.8 °C

Mean annual rainfall: 490.2 mm

Remark: In case of *Beta* the multiplication generally is carried out in the frame of country-wide "*Backyard multiplication system*", so these informations concern to Tápiószele

Seed increase manual (biennial)

Seed increase manual (biennial)	
	Measure
Seed preparation	Seed dressing
Sowing	March - June, in the open fields
Transplanting	No
Fertilisation	Occasional and changing
Vernalisation	Natural
Cultivation of seed mother plants	Small roots (stecklings) are lifted and clamped in sand-bed in autumn, and are replanted into field in March-April at 80 x 60 cm distance between plants
Effective population size	10 - 15 plants
Pollination control	Spatial isolation (150-200 m) in the trial fields of the Institute for Agrobotany, or in the separated back-yard gardens of the country-wide multiplying network
Pollination method	Wind pollination
Conditions during seed ripening	Natural
Seed harvest procedure	Single plants are harvested depending on maturity
Pre-processing of seeds	Plants are dried in green houses or plastic-tents
Threshing	Manual
Final processing	Sieving by hand, air separator
Drying before storage	In two steps. 1st step: Temperature 25-30°C, Relative air humidity 20% in a genebank pre-drying chamber, about 2 weeks. 2nd step to 5% seed moisture content: Temperature 15-20°C and Relative air humidity 10% in a genebank drying chamber. approx. 10 days.
Storage	Air-tied jars at 0 and -20 °C.
Germination test	2 x 50 fruits; between filter paper; 14 days period, 20 °C
Problems encountered/ Remarks	

Seed increase manual (annual)

Seed increase manual (annual)

	Measure
Seed preparation	Seed dressing
Sowing	March - June, In the open fields
Transplanting	No
Fertilisation	Occasional and changing
Vernalisation	Natural
Cultivation of seed mother plants	80 x 60 cm distance between plants
Effective population size	15-20 plants
Pollination control	Spatial isolation (150-200 m) in the trial fields of the Institute for Agrobotany, or in the separated back-yard gardens of the country-wide multiplying network
Pollination method	Wind pollination
Conditions during seed ripening	Natural
Seed harvest procedure	Single plants are harvested depending on maturity
Pre-processing of seeds	Plants are dried in green houses or plastic-tents
Threshing	Manual
Final processing	Sieving by hand, air separator
Drying before storage	In two steps. 1st step: Temperature 25-30°C, Relative air humidity 20% in a genebank pre-drying chamber, about 2 weeks. 2nd step to 5% seed moisture content: Temperature 15-20°C and Relative air humidity 10% in a genebank drying chamber, approx. 10 days.
Storage	Air-tied jars at 0 and -20 °C
Germination test	2 x 50 fruits; between filter paper; 14 days period, 20 °C
Problems encountered/ Remarks	