

## PRODUCTION GUIDELINES FOR BEANS

Crop	Beans
Botanical Name	<i>Phaseolus vulgaris</i>
Number of Seeds per kg	4500 - 5000
Number of Seeds for Direct Sowing (kg/ha)	50 - 110
Sowing Depth (cm)	1 - 2
Optimum Soil Temperature for Germination	28°C
Days to Emergence	7
In Row Spacing (cm)	5 - 10
Between Row Spacing (cm)	40 - 60
Population per Hectare	150 000 - 500 000
Temperature Range for Growth	15 - 20°C
Sensitivity to Frost	Very Sensitive
Days to Maturity from transplant	60 - 80
Expected Yields (ton/ha)	12 - 20
Harvest Period	10 - 20 days
Effective Rooting Depth (cm)	60 - 100
Optimum Soil Type	Sandy Loam, well drained
Soil pH	5.5 - 6.8
Sensitivity to Salinity	Very sensitive
Total Water Requirement (mm)	320
Weekly Water requirement (mm)	25 - 35
Storage Temperature (°C)	5 - 7
Humidity at Storage	95
Maximum duration of Storage	7 - 10 days
Perishability	Relatively Sensitive
Pests	Bean Weevil , Nematodes, Seed Bean Maggot , Cutworm , Aphids, Spider Mite, CMR Beetles, Thrips , Bollworm , Semi-looper .
Diseases	Damping Off, <i>Fusarium</i> Wilt, Anthracnose , Brown Rust , Stem Rot , Bacterial Blight , Bean Mosaic Virus, Yellow Mosaic Virus, Necrosis Virus.
Physiological Disorders	Sunburn (Lack of N, Lack of leaf cover, Bald Head (Mechanical damage of seed), Split Seed (Mechanical damage of seed).
Seed Production: Isolation Distances	3m
Pollination	Self pollination
<b>Bean Classification according to size:</b>	
Very Fine	5.5 - 6.5 x 100 - 140mm
Fine	6.5 - 7.5 x 100 - 140mm
Bobby	7.5 - 8.5 x 100 - 150mm
Medium Large	8.5 - 10 x 100 - 150mm
Large	10 - 12 x 110 - 170mm
Suggested amount of Nutrient: Nitrogen (N)	50 - 100 kg/ha
Phosphorus (P)	30 - 50 kg/ha
Potassium (K)	<100 kg/ha
Micro-element Sensitivity: Low	Manganese (Mn), Copper (Cu)
Medium	Boron (B), Molybdenum (Mo)
High	Zinc (Zn), Iron (Fe)



ESCALADE



ALEXANDRA

\* This variety is not yet on the varietal list, but an application will be or has been lodged

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