Crop management practices of Tomato

Management practices	Description	Input
Varieties	Improved: Utkal Kumari, Utkal Raja , Punjab Chaura, Punjab keshari Hybrid : Lakhmi, Goteya, Avinash, Vaishali, Naveen , Chiranjib, Tanuja	
Land preparation	One primary and one secondary tillage followed by preparation of convenient beds of 4x5 m size and pits for transplanting of the seedlings	Well decomposed FYM with basal dose of fertilisers to be applied to the pits
Seed rate	Varieties: 300-350 g / ha Hybrids: 100-150 g / ha	
Spacing	Planting at a spacing of 90 x 60 x 60 cm in the paired row system	
Sowing/Planting time	November – December (Winter crop) January- February (Summer crop)	
Organic manures	Well decomposed FYM @ 25 t/ha	
Fertilizers	**Improved Varieties –** 150-100-50 kg N, P_2O_5 , K_2O / ha **Hybrids** 200:250:250 kg N, P_2O_5 , K_2O / ha .	Basal dose: 75:100:50 kg NPK / ha, Top dressing 75 kg N/ha on 30th day of planting or during earthing up. Basal dose: 50:250: 100 kg NPK / ha Top dressing: N and K each 150 kg/ha in 3 equal splits at 30, 45 and 60 days after planting
Micronutrient/ biofertilizers	Soil application of Borax 10 kg/ ha in Boron deficient soils Application of 2 kg of Azospirillum and 2 kg of PSB with 50 kg of FYM and 100 kg Neem cake/ ha	
Intercultural operation	Weeding hoeing and earthing up is to be done along with fertiliser application. Nipping of terminal shoots will improve the branching and fruit set. Stalking to be done for the development of good size quality fruits.	
Special practices	Spray 1.25 ppm (625 ml in 500 litres of water) Triacontanol at 15 days after transplanting and at full bloom stage to increase the yield. Apply 15 or 20mg. Parachlorophenoxy acetic acid (CIPA) or 2mg 2,4-D per lit of water at flowering and fruit setting to avoid flower & Fruit to get better yield.	
Irrigation	After establishment of seedlings, irrigate at weekly intervals.	
Weed management	Pre-emergence application of pendimethalin is applied @ 3 lit/ ha (1 kg a.i./ha) just before transplanting.	
Insect pest	Need based spraying of Bt @ 1 kg/ ha or spinosad @ 200 ml/ ha or indoxacarb @ 300 ml/ ha to control fruit borer. Foliar spray of thiomethoxam @ 200 g/ ha or imidacloprid @ 250 ml/ ha to reduce the infestation of whitefly and jassids	
Diseases	Nursery treatment with carboxin + thiram @ 2 g and plantomycin @ 1 g/ l of water at 7 days before transplanting to minimise the incidence of wilting. Judicious water and nutrient management and need based spraying/ drenching of carboxin + thiram @ 750 g/ ha or flusilazole @ 200 ml/ ha along with streptocyclin @ 50 g/ ha to check wilting. Need based spraying of metalaxyl + mancozeb @ 1 kg/ ha to reduce the incidence of fruit rot and blight.	
Harvest	Harvesting of fruits commences in about 85 to 90 days after transplantation and continues for about 45 to 60 days. Yields 30 to 40 tons/ha in the high yielding varieties 50-60 t/ha in hybrids.	