

PACKAGE OF PRACTICES

CROP: ONION

Sl. No.	Particulars/operations /Practice	Details of operation
1	Suitability for the area/ Agro climatic zone	Onion is a temperate crop but can be grown under a wide range of climatic conditions. The best performance can be obtained in a mild weather without the extremes of cold and heat and excessive rainfall.
2	Land / Soil	Onion thrives well in deep friable alluvial and loamy soils, which are slightly acidic (pH 5.8 to 6.5). Alkaline, low lying and clay soils are not suitable for this crop.
3	Season/sowing time	June-July, September-October and January-February are the best months for starting the crop. Best bulbs are generally obtained from the crop grown during winter months.
4	Seed rate	1-1.5 Kg for transplanting and one way drilling 3-4 Kg For Broadcasting and Two way drilling
5	Preparation of Main field and planting	Organic manures equivalent to 75 kg N/ha (approximately FYM 15 t/ha or poultry manure 7.5 t/ha or vermicompost 7.5 t/ha) should be incorporated at the time of last ploughing and beds with appropriate size should be prepared after leveling.
6	Spacing	While transplanting, use spacing of 15 cm between rows and 10 cm between plants.
7	Seed treatment before sowing	1. Seed treatment with Thiram@2 gm/kg of seed + Benomyl 50WP@1 gm/liter water effectively controls damping off and smut diseases. 2. After chemical treatment, seed treatment with bio agent <i>Trichoderma viride</i> @2 gm/kg of seed is recommended, it helps in reducing early seedling diseases and soil borne inoculum.
8	Manures and Fertilizers	Application of fertilizers @ NPK 40:40:60 kg/ha as basal and the remaining 70 kg N in seven splits through drip irrigation is recommended for achieving higher marketable bulb yield and cost benefit ratio.
9	Irrigation schedule	The critical stage of water requirement is 40-60 days after transplanting. About 8-12 irrigations are required depending upon the soil type. The water can also be provided through drip wherever there is a limited source of water.
10	Weeding/inter-cultivation	Onion is sensitive to weed computation. At least 2-3 hand weeding is required during the crop stage. Chemical weedicides are now available and Oxyflurofen(Oxy gold) @ 0.5- 0.7 ml/Ltr of water may be sprayed when the crop is 30 days old in the transplanted crop.
11	Micronutrient/growth regulator	In case the crop suffers from micronutrients like sulphur and zinc, The soil should be incorporated with 5Kg of sulphur and 10Kg of ZnSO ₄ per acre.

12	Pest and Disease control	<p>Thrips and onion fly: Quinalphos 25 % EC @ 1.2 ml/lit</p> <p>Cutworm: Drench the soil with Chlorpyriphos @ 2 ml/lit. for control</p> <p>Leaf spot: Spray Mancozeb 2 gm/lit or Copper oxychloride 2.5 gm/lit and add Teepol 0.5 ml/lit to the spray fluid.</p> <p>Basal rot: Seed or bulb treatment with Trichoderma viride, @ 4g/kg and basal application of <i>T. viride</i>,@2.5kg/ha along with VAM 12.5 kg/ha.</p>
13	Expected yield	<p>Rabi season gives an yield of 25-30 t/ha</p> <p>Rainfed conditions it yields only about 0.7-1.0 t/ha.</p>