

PACKAGE OF PRACTICES

CROP: COWPEA

Sl. No.	Particulars/operations /Practice	Details of operation
1	Suitability for the area/ Agro climatic zone	Northern transitional zone of Karnataka. Cowpea is warm weather and semi arid crop, where temperature ranging from 20°C to 30°C
2	Land / Soil	Well drained loam or slightly heavy soils are best suited. It can grow successfully in acidic soil but not in saline/alkaline soil.
3	Season/Sowing time	Rabi - October – November Summer - 2nd to 4th week of March (grain), February (Fodder)
4	Seed rate	For pure crop - 20 - 25 Kg. ha (grain). Sowing of cowpea is done by broadcasting, line sowing and dibbling of seeds based on their purpose and season. Line sowing has been better over broadcasting method of sowing. In high rainfall area, formed 30 cm wide and 15 cm deep drainage channel at every 2 meter interval to drain excess rain water. Sowing of seed a depth of 3 - 5 cm.
5	Preparation of Main field and planting	Prepare the main field to a fine tilth. In hard soil, one deep ploughs followed by two or three harrowing and planking are sufficient. In normal soil only two harrowing & planking is enough. For summer season crop give irrigation immediately after harvesting of Rabi crop.
6	Spacing	Row to row - 30 (Bushing) to 45 cm (spreading). Plant to Plant - 10 (Bushing) to 15 cm (spreading).
7	Seed treatment before sowing	Seed treatment with Captan (2g/kg)
8	Manures and Fertilizers	Apply FYM/compost - 5 - 10 t/ha as basal with last ploughing. 15 - 20 kg N/ ha as starter dose in poor soils (organic carbon<0.5%), 50 - 60 kg/ha P ₂ O ₅ and 50 - 60 kg. K ₂ O/ha. Phosphorus and potassium fertilizer should be give according to soil test value.
9	Irrigation schedule	Generally, crop required 5 - 6 irrigation depending on soil, prevailing weather conditions etc, at an interval of 10-15 days. The response to irrigation is in order of flowering > pod filling > vegetative. Crop can tolerate flooding up to 2 days at flowering and pod setting thereafter, a marked decrease in yield and its attribute.
10	Weeding/ inter-cultivation	For higher yield crop should be free from weed up to 25 to 30 day crop stage No weeding is given this crop. It covers the land very soon and kills the weeds by smoothing. Application of pendimethaline @ 0.75 - 1 kg a.i. /ha combined with one hand weeding at 35 days after sowing is beneficial.

11	Micronutrient/growth regulator sprays	<p>Apply at the time of flowering Sulphur (Bensulf) 10 kg</p> <p>*Spray Calcium Nitrate(1% solution) at the time of flowering to increase fruit set</p> <p>* Spray Urea & Soluble K (1% Solution each) 15 days interval during harvesting time</p>
12	Pest and Disease control	<p>Pests</p> <ol style="list-style-type: none"> 1. Bacterial Blight <ul style="list-style-type: none"> ○ Control Measures: Crop may be sprayed with 0.2 % (2g/liter) copper oxy-chloride (Blitox). 2. Cowpea Mosaic <ul style="list-style-type: none"> ○ Control Measures: For controlling aphids spray Oxydemeton methyl 25 EC (Metasystox) @ 1 ml/liter or Imidacloprid 17.8 SL @ 0.2 ml/ liter of water and repeat the spray after 10 days of first spray. 3. Powdery mildew <ul style="list-style-type: none"> ○ Control Measures: The disease can be controlled by spray of wettable sulphur @ 3g/liter or carbendazim @1 g/liter of water. <p>Diseases</p> <ol style="list-style-type: none"> 1. Cowpea pod borer <ul style="list-style-type: none"> ○ Control Measures: The young caterpillar can be killed by dusting 2% methyl parathion @ 25 - 30 kg per hectare or spray of quinalphos @2 ml/liter of water. 2. Hairy caterpillar <ul style="list-style-type: none"> ○ Control Measures: Spray Chloropyriphos or Quinolphos @ 2ml/liter of water. 3. Aphids and Jassids <ul style="list-style-type: none"> ○ Control Measures: Spray of Oxydemeton Methyl 25 EC (Metasystox) @ 1 ml/ liter or Dimethoate 30 EC @ 1.7 ml/ liter of water.
13	Expected yield	<p>Green pods for use as vegetable can be harvested 45 - 90 days after sowing depending on the variety. For grains, the crop can be harvested in about 90-125 days after sowing when pods are fully matured. The crop should be then dried and threshed, threshed grain should be dried in sun before storage.</p> <p>A good crop of cowpea yields about 12 - 15 q of grain and 50 - 60 q of straw per hectare.</p>