Package of Practices of GROUNDNUT

Groundnut (Arachis Hypogea) is an important food legume of tropical and subtropical areas. It ranks 13th among the principal economic crops of the world. In India groundnut has the largest area (32.5% of the world) and till 1992 it was the chief producer of groundnut in the world. It is a nontraditional crop of NEH region, but highly potential crop on the uplands and also after rice in many districts of Meghalaya. By adopting proper management practices the productivity and availability of groundnut can be increased to a great extent in NEH region.

Soil and Climate: The crop does best on well drained, light textured loose and friable soil with reasonably high calcium with a pH range of 5.5 to 7.0 and a moderate organic matter.

Varieties:

Kharif Season: ICGS-76 & ICGV86590
ICGS-44 & TKG 19 A

Rabi Season: ICGA-76 and Girnar –1

Sowing Time: The optimum time of sowing for kharif groundnut is late May to first week of June and for rabi groundnut is between 15th Sept to 15th Oct with the use of polythene or straw mulching.

Seed Rate and Spacing:

<table>
<thead>
<tr>
<th>Variety</th>
<th>Spacing</th>
<th>Seed (kernel) rate (Kg/ha)</th>
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<tbody>
<tr>
<td>Bunch Type</td>
<td>30x 10 cm</td>
<td>100-120</td>
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<tr>
<td>Semi Dwarf</td>
<td>30x 15 cm</td>
<td>95-100</td>
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Fertiliser Application: Well decomposed FYM @ 10t/ha followed by 20 kg N, 60 Kg P₂O₅ & 40 Kg K₂O/ha is recommended. All these amount is placed in the furrows below the seed at sowing time. N is applied as starter dose in groundnut as the crop derives its N requirement through its nodules. Rock Phosphate is used to meet the P requirement in Groundnut. Application of lime supplies Ca which is essential for better peg development. Recommended NPK dose + lime @ 2.5t/ha gave maximum pod yield of groundnut as compared to other treatments.

Irrigation: One irrigation at pegging stage of the crop to avoid reduction of pod yield of groundnut if any drought occurrence is there.

Weed Management: One hoeing and earthing up at 25 DAS followed by hand weeding at 35 DAS found to be optimum. Application of herbicides Butachlor @ 1.5 kg ai /ha or Pendimethalin @ 1.0 kg ai/ha within 2-3 days after sowing as pre emergence and one mechanical weeding at 40-50 DAS was found to be best.

Mulching: Polythene mulch shows better soil moisture conservation and temperature balance in soil during pre-rabi season which gives higher number of pods, kernel weight and higher pod yield. Rice straw was also found to be effective for improving the productivity and pre-rabi groundnut.

Plant Protection: For tikka disease of groundnut spraying of Bavistin @ 1 g/L solution after 4-5 weeks of sowing is recommended. Problem of root grub in groundnut can be checked by applying 40 kg/ha of BHC 2 % at the time of final land preparation. Carbofuran (Furadon) 1.5 kg ai/ha also can check root grub in groundnut.
**Intercropping:** It can be grown as sole crop or as intercrop with upland rice or maize. The varieties identified for intercropping systems are JL-24, Girnar-1, ICGS-76 and ICGS-44. Intercropping of groundnut in upland rice and maize increased maize and rice equivalent yields.

**Harvesting:** Groundnut is ready for harvest within 110-120 days after sowing. However, under mid altitude the crop takes more than 120 days if it is sown before last week of April. At the time of maturity, the seed kernel develops reddish brown tinge on its surface. It can be harvested by pulling the entire plant if the soil is loose or by digging the soil.

**Storage:** The pods are stripped off, cleaned and spread on the floor for drying under mild sunshine. After drying, the pods are ready for sale and should be stored in polythene bags. At proper drying, the kernel will split into two cotyledons if pressed with thumb and index finger. After drying operation, the pods should be kept in polythene lined gunny bags.

**Yield:** With the use of improved production technologies and varieties an average yield of 25-30 q/ha can be obtained.