

## *Recommended technologies for Kharif Groundnut cultivation*

- New released varieties recommended for Gujarat**

- **Spacing:** Bunch type – 30 cm\*10 cm, Runner type - 45 cm\*10 cm

S. No.	Name of Cultivar	Habit	Year of release	Yield Potential (kg/ha)
1	Phule Warna (KDG 128)	Virginia bunch	2016	2425
2	Phule Morna (KDG 123)	Virginia bunch	2016	2212
3	GJG 32	Spanish bunch	2018	2909
4	Girnar 4	Virginia bunch	2020	3218
5	Girnar 5	Virginia bunch	2020	3124
6	GG 40	Spanish bunch	2022	3321
7	ICAR-VRI 11	Spanish bunch	2024	3213

- Seed treatment in groundnut**

- **Order of seed treatment** – FIR (Fungicide – Insecticide – Rhizobium)
- **Fungicide + Insecticide** – Combined mixture of fungicide and insecticide is available in the market. (Imidacloprid 18.5% + Hexaconazole 1.5% FS@ 2 ml / 1 kg seeds) Treat the seeds by this slurry prepared by dissolving this combined mixture in recommended quantity of water and shade-dry for 2 hrs and place treated seeds in the seed drum.
- **Rhizobium** - Prepare slurry by dissolving 500 g of sugar in 500 mL of water → heat the solution for 15 minutes → add 200 g gum arabica and cool to room temperature → place the treated seeds in the seed drum → add either Rhizobium (1.25 kg ha) and rest it for 15 minutes → Spread the treated seeds on cement floor or plastic sheet and shade-dry for 30 minutes → Sow the seeds in furrow and provide irrigation immediately.

- Micronutrient application in groundnut**

- Nutrient management: FYM 5 t/ha, 12.5-25-50 kg NPK/ha (100% N-P and 50% K as soil application as basal and 50 % K at 45 DAS).
- Soil and/or foliar application of micronutrients if soil test values are found deficient for micronutrient(s):

Micronutrient	Form and rate of application to soil	Application as spray
Boron	Borax 5-10 kg/ha	2.5gm/ litre borax
Copper	Copper sulphate 5-10 kg/ha	1 gm/litre copper sulphate + 0.5 gm/litre lime
Manganese	Manganese sulphate 10-25 kg/ha	6 gm/litre manganese sulphate + 3 gm/litre lime
Zinc	Zinc sulphate 15-25 kg/ha	5 gm/litre zinc sulphate + 2.5 gm/litre % lime
Molybdenum	Ammonium molybdate 0.5-1.0 kg/ha	0.1 gm/litre ammonium molybdate
Iron	Ferrous sulphate 25-50 kg/ha	10 gm/litre ferrous sulphate (thrice)+ 5 gm/litre lime

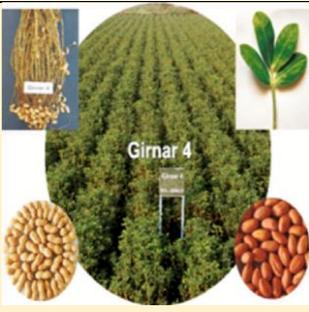
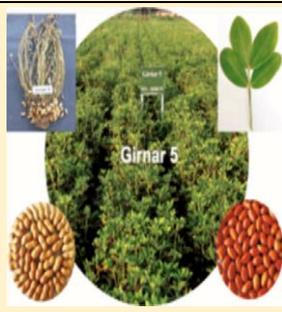
- Integrated weed management in groundnut**

- **Pre-emergence application:** Diclosulam 84% WDG @26 g/ha (within 03 days - 72 hrs of sowing)
- **Post-emergence application:** Quizalopfop ethyl 5% EC @50 gm/ha or Imazethyper 10% SL @100 gm/ha to the crop at 20-25 days of crop emergence or at 3 to 4 leaf stage of weeds.
- Interculture for aeration once or twice after 7-10 days of application of post-emergence herbicide (or 25-30 days after pre-emergence application, if post emergence is not applied)

- White grub management in groundnut**

- Installation of light traps for adults of white grub.
- Installation of pheromone traps on host trees like neem, moringa, subabul for mass attraction and killing by spraying systemic insecticides (chlorpyrifos, imidacloprid) on host trees.
- Seed treatment with Imidacloprid (48 FS @2ml/ kg of seeds) or chlorpyrifos (20 EC @12 ml/kg seeds).
- If fields infestation with white grub is observed drenching the root zone with Chlorpyrifos.

**Newly Released Varieties of Groundnut Recommended for Gujarat**

			
<b>Phule Warna</b>	<b>Phule Morna</b>	<b>GG 40</b>	
			
<b>GJG 32</b>	<b>Girnar 4</b>	<b>Girnar 5</b>	<b>ICAR-VRI 11</b>

**Micronutrient deficiency in groundnut**

		
<b>Iron deficiency</b>	<b>Zinc deficiency</b>	<b>Boron deficiency</b>
		
<b>Molybdenum deficiency</b>	<b>Copper deficiency</b>	<b>Manganese deficiency</b>

## Major Diseases and Pests in Groundnut

			
<b>White grub larvae</b>	<b>White Grub (Adult)</b>	<b>Collar rot</b>	<b>Stem rot</b>

## Major weeds in Kharif groundnut

			
<b>Mangrove grass</b>	<b>Bermuda grass (Doob)</b>	<b>Barnyard grass (Samo)</b>	<b>Nut sedge (Chidho)</b>
			
<b>Carrot grass</b>	<b>Amaranthus</b>	<b>Day flower</b>	<b>Bhangaro</b>
			
<b>Purslane (luni)</b>	<b>Ekdandi</b>	<b>Vekariyo</b>	<b>Phulni</b>

**Compilation:** *Dr. Aaradhana Chilwal, Shanmuka Adupa, Sahil Patel*

**Resource Person:** *Dr. C. S. Praharaj, Dr. Harish G., Dr. Nataraja M. V., Dr. K. K. Reddy, Dr. Kona Praveen*



# भाकृअनुप-मूँगफली अनुसंधान निदेशालय

स्थान और पोस्ट: इवनगर, इवनगर रोड, जूनागढ़, गुजरात, भारत

## ICAR-Directorate of Groundnut Research

At & Post: Ivnagar, Ivnagar Road, Junagadh, Gujarat, India

