

PROFITS

- ▼ Yield: 1800 kg/ha (288 kg/kani)
- ▼ Sale price :Rs. 25/-per kg
- ▼ Cost benefit ratio is 1:2

COST OF CULTIVATION	GROSS RETURN	NET PROFIT
Rs. 21,225/ha Rs. 3396/kani	Rs.45,000/ha Rs. 7,200/kani	Rs. 23,775/ha Rs.3,804/kani

1 ha = 6.25 kani (Unit of land area used locally in Tripura)

SOURCES OF SEED

- ▼ Krishi Vigyan Kendra, South Tripura
- ▼ ICAR Research Complex for NEH Region, Tripura Centre, Lembucherra, West Tripura
- ▼ Agriculture Department, Government of Tripura.



PUBLICATION NO. 2

YEAR: 2009

EDITED BY

MANDIRA CHAKRABORTI

Subject Matter Specialist (Agronomy)

DR. A.K. SINGH

Programme Coordinator

DR. N.P. SINGH

Joint Director, ICAR, Tripura Centre

DR. S.V. NGACHAN

Director, ICAR Research Complex for NEH Region

PUBLISHED BY

DR. A.K. SINGH

Programme Coordinator

KRISHI VIGYAN KENDRA, SOUTH TRIPURA

Birchandramanu, P.O. Manpathar, South Tripura

Tripura-799144, India

Website : www.kvksouthtripura.org.in

e-mail: kvksouthtripura@rediffmail.com

Phone: +91 3823-252523 Fax: +91 3823-252523



KVK
South Tripura

Practical
Technology

Crops
2009-10



ARHAR CULTIVATION

a cheapest source of protein



KRISHI VIGYAN KENDRA

South Tripura

ICAR Research Complex for NEH Region

Zonal Project Directorate, Zone-III

www.kvksouthtripura.org.in

Pulse crops play an important role in human and animal nutrition. Pulses are the cheapest source of protein and therefore, occupy an important position in balancing human dietary needs. The soil and agro-climatic conditions of the Tripura state has tremendous potential for high production of arhar (Pigeon pea) in rainfed and irrigated farming situation. In addition pulses enrich soil fertility by fixing the atmospheric nitrogen and adding it to the soil, improve soil structure and water absorbing capacity by their deep root system. Hence, the scientific cultivation practices of arhar by the farmers of Tripura is essential.

POTENTIAL AREAS IN SOUTH TRIPURA

- ▼ Medium upland, tilla land and sloppy areas can be utilized for arhar cultivation.
- ▼ Promising village of South Tripura district are Dudhpushkarini, Mirza, Takmacherra, Santirbazar, Paratia etc.

ADVANTAGES

- ▼ Being a leguminous crop it provides nitrogen to the soil.
- ▼ Can be grown as cover crop and reduce soil erosion.
- ▼ Can be grown as intercrop with vegetable, oilseed, upland rice etc.

SOIL

- ▼ Sandy loam to clay loam
- ▼ Soil must be deep and well drained

LAND PREPARATION

- ▼ With the onset of monsoon soil must be ploughed thrice.
- ▼ Planking to pulverize the clods to prepare the seed bed for sowing of arhar.
- ▼ Proper drainage arrangement must be done at the time of land preparation.

IMPROVED ARHAR VARIETIES

DURATION	VARIETIES
Short duration(125-130 days)	UPAS-120, Prabhat, Pusa Ageti.
Long duration (225 days)	Tripura Local, Malviya arhar-13, Narendra-1



OPTIMUM SOWING TIME

- ▼ 3rd week of April to the 3rd week of May.

SEED RATE AND SPACING

- ▼ 12 to 15 kg seed is required for line sowing of arhar.
- ▼ Row spacing of 60 to 75 cm and plant to plant spacing is 25 to 30 cm.
- ▼ Seed should be sown at a depth of 4 to 5 cm.

SEED TREATMENT

- ▼ Treat the seed with captan or thiram @ 2.5 to 3 g per kg of seed.

MANURES AND FERTILIZER

MANURES AND FERTILISER	QUANTITY TO BE APPLIED
FYM/Compost	10 t/ha
Urea	43 kg
Rockphosphate	250 kg
Muriate of Potash	50 kg
Biofertiliser	25 g of rhizobium and 25 g of biophos with per kg seed.

FYM and Rock phosphate should be applied at the time of field preparation i.e. 15 to 20 days before sowing and thoroughly mixed with the soil. Other fertilisers (Nitrogen & Potash) should be applied as basal dose i.e. just before the sowing.

INTERCROPPING AND CROPPING SYSTEM

With the availability of short duration arhar varieties the following rotations may be adopted under rainfed conditions.

- ▼ Arhar -Toria/Mustard
 - ▼ Arhar -Vegetables (Irrigated)
- Arhar is suitable for intercropping in Tripura. Along with Arhar most of the cereals, pulses and oilseed can be grown as intercrop with suitable row arrangement.
- ▼ Arhar + Upland rice
 - ▼ Arhar + Moong/Blackgram/Cowpea.
 - ▼ Arhar + Sesamum/groundnut



WEED MANAGEMENT

- ▼ Field should be kept free from weed up to 45 to 50 days.
- ▼ 1st weeding should be done 25 to 30 days after sowing.
- ▼ 2nd weeding should be done 45 to 50 days after sowing.

INSECT-PEST CONTROL

POD BORER

- ▼ Pod borer is an important pest of arhar commonly seen in Tripura.
- ▼ Larvae feed on tender leaves and twigs.
- ▼ At pod formation stage they puncture the pod and feed on developing grains.

CONTROL MEASURE

- ▼ Control measure includes picking up of caterpillar by hand.
- ▼ Spraying with 750 ml of monocrotophos 40 EC per ha in 1000 litre of water.

DISEASE CONTROL

WILT

- ▼ Diseased plants show the gradual yellowing and wilting 5 to 6 weeks after sowing.
- ▼ Black lesions on the collar region and top roots may be seen.

Control Measure

- ▼ Crop rotation.
- ▼ Tolerant varieties N.P-15 and N.P-38.

HARVESTING, THRESHING, STORAGE AND YIELD

- ▼ Crop should be harvested when two-third to three-fourth of pods turn brown.
- ▼ Harvested plants should be stacked and left for few days for sun drying.
- ▼ Threshing should be done by beating the pods by stick.
- ▼ Threshed produce should be cleaned.

