

Sesame TIL *Sesamum indicum* L.

Family: Pedaliaceae

Introduction

- Sesame is short duration, Kharif season and self-pollinated crop.
- Sesame has been cultivated as a valuable oil crop.
- Its seed contains prime quality of about 50% edible oil, 22% good quality protein and 16-18% carbohydrate.
- Its oil is mixed as a ratio of 5 to 10% with other edible oils for improving their quality.
- It is very drought-tolerant crop. It has been called a survivor crop.

Agro-meteorology

Climate: It is irrigated and semi-arid tropic crop and require high temperature of 35-40 °C for vegetative and reproductive growth.

Soil: It can be grown on sandy-loam to clayey soils. However, silt to clay loam soils are best for it.

Economic importance

Area of Pakistan under Til is 56.10 thousand ha, production 25.48 thousand tonnes and average yield is 402 kg/ha

Uses: Human and animals diet, poultry diet, fast foods and bakery products, quality soaps, perfumes, carbon paper, ribbon of type writer

Production technology

Seed bed preparation: 2-3 ploughings, 1-2 planking are sufficient to prepare seed bed.

Sowing time: In barani areas: 1st July-15th July; In irrigated areas, 1st June–15th July. Sowing before June affected due to diseases and insects attack After July resulted lower production and delays wheat sowing

Seed rate: 1.5 to 2 kg/acre

Sowing method: Sowing with automatic rabi drill is best (R X R = 45 cm apart). Ensure that seed placement should be at depth of 2 cm. Seed mixed with 6-8 kg sand or fine soil for drill sowing and continuous mixing for uniform placement of seed. If drill is not available, then seed mixed with 2-3 kg sand and broadcast in length wise and width wise. Than covered with light soil.

The optimum plant population of wheat is 10-12 lac plants per care.

Fertilizer:

Areas	Application	of	N	P ₂ O ₅	K ₂ O (kg/acre)
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	fertilizer			
Irrigated areas	At first and second irrigation	23	23	12
Barani areas	At the time of sowing			

Fertilizer should be applied according to fertility status of soil (in irrigated areas) and according to rainfall (in barani areas). Less fertile soils require more fertilizer and more rainfall areas require more fertilizer.

In irrigated areas, whole of P and K should be applied at seed bed preparation. But N is applied in 2 splits, ½ N at seed bed preparation and ½ N with 1st or 2nd irrigation.

Irrigation: It requires 2-3 irrigations:

1st irrigation: 15-20 days after sowing (DAS)

2nd irrigation: at the time of flowering

3rd irrigation: at the time of pod formation

Thinning and hoeing

- After one week up rooted the weak and diseases plants by keeping 4-6 inch spacing between plants following 58,000 to 87,000 plants/ha.
- First hoeing is done after 15-20 days and second after 30 days of germination with khurpa or Tarphali.

Plant protection measures:

A) INSECT-PESTS:

Til Capsule Borer
White Fly
Jassid
Mirid Bug
Cotton Mealy Bug
Thrips
Termite

B) DISEASES:

Stem/Root Rot
Wilt
Collar rot
Phyllody

Harvesting and threshing

- Sesame crop matures in about 100-120 days
- The crop should be harvested when 75 % capsules are ripened and become (yellow colored)
- Make bundles and stalked upright for drying
- One week after harvesting, thrashing should be done in clear weather so that seeds could also be dried prior to storage with at least 8-10% moisture content

Varieties

TH-6; TH-5