

CANOLA PRODUCTION TECHNOLOGY



CANOLA

(Canadian Oil Low in Acid)

- Brassica (Rapeseed & Mustard)
 - Less than 2% Erucic acid in oil
 - Less than 30 μ moles/g Glucosinolates in oil free meal called CANOLA”.
- 1st Canola was bred from Rapeseed at the [University of Manitoba, Canada](#), by [Keith Downey](#) and [Baldur R. Stefansson](#) in the early 1970s.



Rapeseed



Mustard





B. napus



B. juncea

BRASSICA PRODUCTION TECHNOLOGY

- VARIETIES: Chakwal Sarsoon, Punjab Canola, Faisal Canola, AARI canola, PARC Canola Super Raya, Khanpur Raya, DGL.

Canola Varieties/Hybrids

- **Rapeseed (*Brassica napus* L.)**

- 1. Faisal Canola**
- 2. Punjab Canola**
- 3. Hyola 401**
- 4. Rustam Canola**

- **Mustard (*Brassica juncea* L.)**

- 1. AARI Canola**

Subsidized Seed Availability

- 1. ICI Pakistan Limited**
- 2. Weal-AG**
- 3. Kanzo**

Seed Rate

2 kg per acre

Sowing Time

Northern Punjab = 15 September – 30th October

Central & Southern Punjab = 1st – 30th October

**Canola crop sown up to 7th October remains safe
from aphid attack.**

Suitable Soil Types

- **All type of Soils except Water Logged & Saline**
- **Well Aerated and Good Drainage**
- **pH Range = 6 - 8**

Land Preparation

Well prepared , fine textured soil by

- **2-3 ploughings followed by planking in fallow land**
- **4-5 ploughings followed by planking if sowing after harvest of crop**
- **Double rowny if water available**

Sowing Method

1. Line Sowing with Drill:

- **Row x Row distance = 1.5 feet (45cm)**

2. Broadcasting:

- **Broadcast seed in well moist soil in both directions**
- **Evenly Distribute Seed**
- **Light planking after Broadcast**

3. Ridge Sowing

In case of late sowing:

- **Prepare dry land**
- **Broadcast the seed**
- **Make ridges R x R = 1.5 feet**
- **Then irrigate the field**

4. Intercropping in Sugarcane:

- **1 row of Canola between two rows of sugarcane**
- **1kg seed/ acre**

Seed Treatment Fungicides:

- Thiofinnate methyl (Topsin M) @ 2g/kg seed
- Difenconazole (Score) @ 1g/kg seed
- Carbendazim 2g/kg seed
- Hombre (Tiboconazole + Imidacloprid)
- Homray Super @ 10 ml/kg seed
- Algier Super @ 9g/kg seed

SMALL SEEDED DRILL





CANOLA IN CITRUS ORCHID

CANOLA INTERCROPPING IN SUGARCANE



CANOLA IN SUGARCANE



CANOLA IN SUGARCANE



Ridge Sowing



Fertilizers

| Fertilizer | Quantity/acre |
|--------------------|---------------|
| DAP | 1bag |
| Urea | 1bag |
| Potassium Sulphate | 1bag |

Irrigation (3-4)

| Irrigation | Growing Stage |
|----------------------------|--|
| 1 st irrigation | Seedling stage (After 1 month of Germination) |
| 2nd irrigation | At flowering stage |
| 3rd irrigation | At Silique/seed development |

For Barani area rainfall within 30 days of sowing and 60 days of sowing are best for its growth

NO MORE IRRIGATION

TIME OF 3rd Irrigation



Thinning

- **At four leaves stage before 1st irrigation**
- **Plant x Plant distance = 4'' - 6''**
- **Plant population must be 60,000/acre**

Weed Eradication

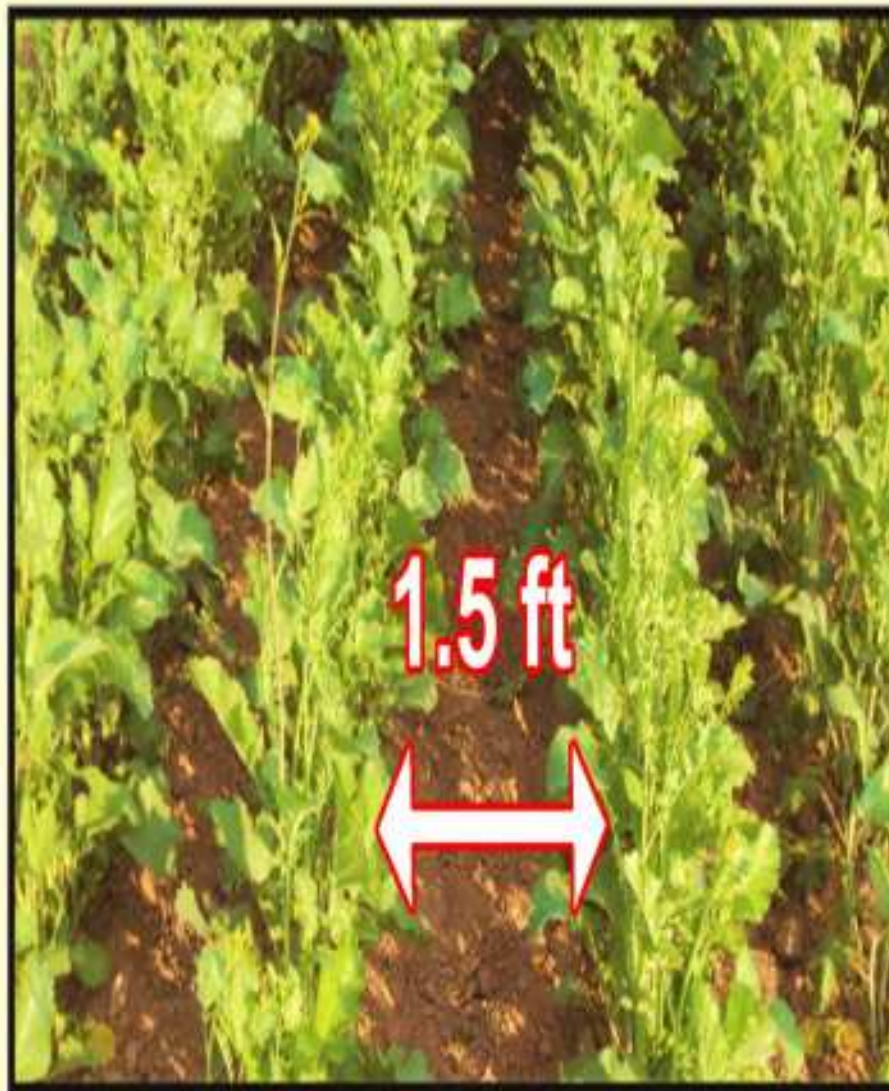
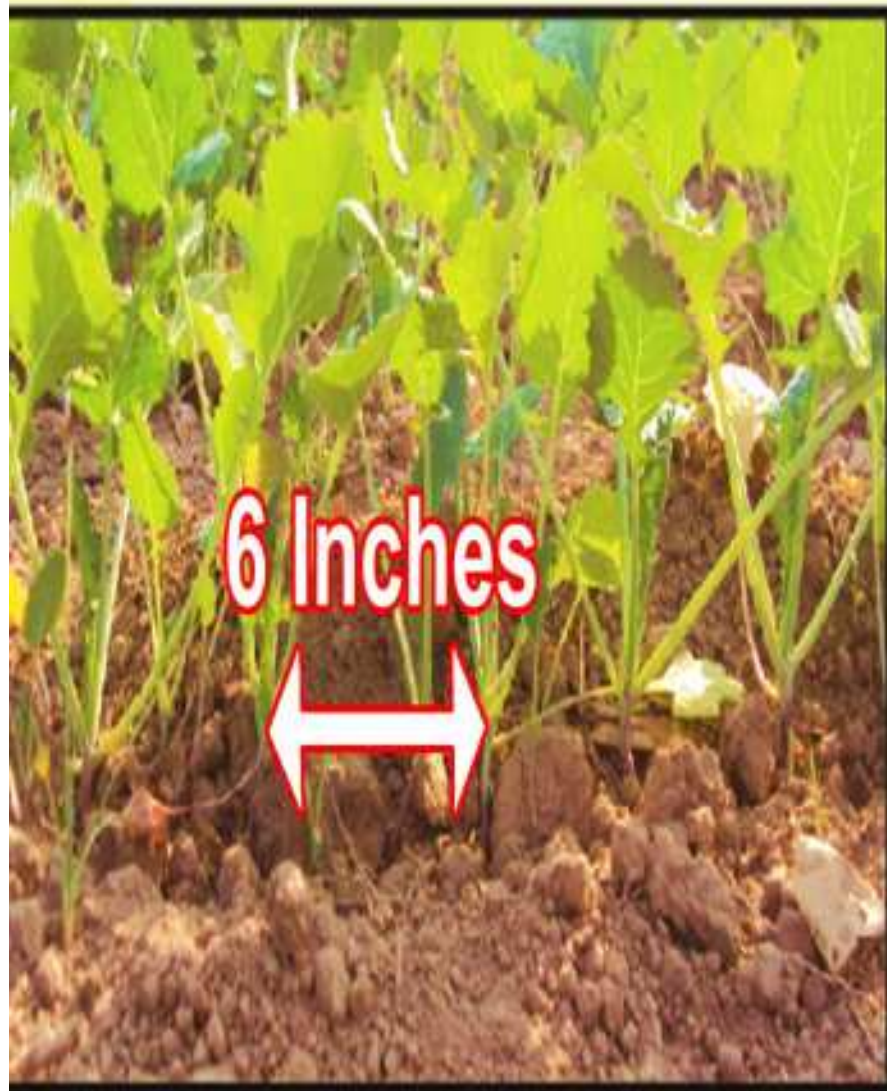
- **Manual weed control**

1st weed eradication before 1st irrigation (Dry Hoeing)

2nd weed eradication after 1st irrigation at wattar condition

- **Chemical weed control**

Dual Gold 800ml/120 litre water after sowing at wattar condition.



Harvesting

Harvest the crop when 50-60% seed turn brown/black in central pods at main branches



Post Harvest Care

- **Dry up harvested crop for 8-10 days**
- **Thresh dry crop with thresher**
- **Thresh crop when moisture content of the seed is 12-15%**
- **Dry up the Threshed seed up to 8% moisture level**



Post Harvest Care



HOME-SCALE OIL REFINING TECHNIQUE

MATERIAL USED

GREY CLAY
(GHACHANI)
@25-30g/kg



FULLER' EARTH



FILTER CLOTH

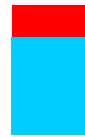


FILTER BAG

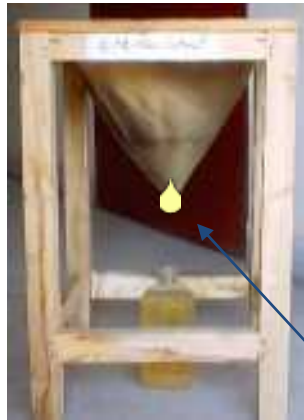
HOME-SCALE OIL REFINING TECHNIQUE



85°C



HEATING
AT 85°C



FILTERING



**REFINED CANOLA OIL
WITH GREY CLAY**

HEALTH BEFEFITS OF CANOLA OIL

- **HIGH IN “GOOD FATS” i.e. ALA (OMEGA 3) AND LA (OMEGA 6)**
- **LOWEST IN BAD FATS**
- **NO CHOLESTEROL**
- **GOOD SOURCE OF VITAMIN E**

THANKS