

Lesson 1

Oil seeds and their importance

What is fat penalty?

- Oil seeds are energy rich crop
- 1g of photosynthate is converted as:
 - 0.70 g of cereal
 - 0.64g of pulses
 - 0.42g of oil / fat
- Energy content MJ/kg
 - Oil - 39.8
 - Protein - 23.9
 - CHO - 16.8

Oil seed production & vegetable oil availability in India (Million)

Year	9 oilseeds M ha	Domestic Veg Oil (M t)	Import Veg Oil (M t)	Total
2004-05	24.8	7.50	5.25	12.75
2003-04	25.1	7.79	4.62	12.41
2002-03	15.1	5.15	5.39	10.54
2001-02	20.7	6.72	4.81	11.53
2000-01	18.4	5.85	5.09	10.94

Share of vegetable oil consumption in India

- 70's
 - Peanut – 53%
 - Rapeseed – 25%
 - Cotton seed oil – 9%
 - Palm, soybean, & sunflower – 4%
- 1999-2000
 - Palm – 38%
 - Soybean – 21%

Historical oil seeds in India

- Coconut, sesame, mustard, cotton seed, linseed, castor, Niger, safflower

Newly introduced oil seeds

- Groundnut, soybean, sunflower, oil palm

Byproducts of cultivated crops

- Rice bran, tapioca seed, maize germ, tobacco seeds, rubber seeds, tung (Aleurites fordii), jute seeds, spent coffee grounds, tea seeds
- Plus many more