

LATEST DEVELOPMENTS AND TRENDS IN  
SUNFLOWER PRODUCTION IN IRAN

By

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Iran is an expanding market for edible vegetable oil. With a population of about 28 million, the consumption of fat and oil per capita is now about 7.17 Kilograms, bringing the total consumption to about 210,000 tons. From this total, 60,000 tons is provided from animal sources within the country. The remaining 150,000 tons is from vegetable origin of which only 40,000 tons comes from the cottonseed produced locally every year. This is a rather stable source. The remaining 110,000 tons required must be supplied from other sources to fulfill the present need and this amount itself will definitely increase with the growth of about 2.5% annual population and the rise in the standard of living through many development programs.

Until three years back, besides 40,000 tons of oil from cottonseed and a little from other sources, the rest of the consumptive vegetable oil demand of the country was supplied by importing raw vegetable oil and after the process of refining and hydrogenating, it was provided for general consumption as edible oil.

The following figures show the importation of raw vegetable oil to Iran during the last three years:

<u>Year</u>	<u>Quantity of raw oil in tons</u>
1967	72,000
1968	90,000
1969	90,000

The greater quantity of the above mentioned vegetable oil imports has been sunflower oil.

The government of Iran, in order to control the foreign exchange, has encouraged the shortening factory owners to produce the raw materials of vegetable oils within the country, and in this way, five largest shortening factory owners in joint effort have organized the Oilseed Research and Development Company.

Prior to the establishment of the Oilseed Research and Development Company, the approximate land under cultivation and the quantity of oil-seeds produced excluding cottonseed were as follows:

Sesame: Land under cultivation - 7,000 ha. Yield - 500 kilos per ha. For most part the oil extracted from the sesame is in liquid form and it is used in sweatmeat industry or exported to other countries.

- Sunflower:** Land under cultivation - 1,000 ha. Yield - 600 kilos per ha. The above production was mostly used as table nuts. Besides this production area, during the year 1966 some quantity of sunflower seed had been imported from U.S.S.R. and planted in 400 ha. land. The yield was very poor. During the year 1967, the production areas of sunflower were mostly from the produce of Russian seed.
- Peanuts:** Production area - 1,500 ha. Yield - approximately 1,500 kilos per ha. Used as table nuts.
- Soybean:** During the year 1963, soybean was imported from America, for the first time by the Behshahr Industrial Group. It was then planted in 32 ha. of land and in forthcoming years the production area increased as follows:

<u>Year</u>	<u>Production area in ha.</u>
1963	32
1964	170
1965	240
1966	1,000

After the establishment of the Oilseed Research and Development Company, the cultivation of oilseed accelerated rapidly and this company through providing seed, fertilizers, loan and by signing contracts with the farmers for purchase of their produce has encouraged the cultivation of the oilseed, especially the sunflower. And the development of oilseed during the last three years is greatly due to the interest and activities of the Oilseed Research and Development Company.

The following figures show the development of oilseed production in Iran.

Sunflower

Year	Area Ha.	Production Tons	Yield kg/ha
1967	1,791	1,446	599
1968	16,162	7,300	451
1969	41,636	28,123	675
1970	100,000 (projected figure)	70,000	700

Soybean

Year	Area Ha.	Production Tons	Yield kg/ha
1967	3,837	2,055	535
1968	5,435	2,286	420
1969	4,281	3,143	734
1970	12,000	7,500	750

Safflower

1967	38	41	---
1968	174	58	386
1969	318	206	647
1970	1,000	700	700

In 1966 the Government of Iran in collaboration with the Government of Romania imported from Romania a variety of sunflower seed by the name of Record which was planted in the northern part of Iran. This variety Record is the suitable variety not only for north of Iran, but is also good enough for other parts of the country. This variety contains about 47 - 48% oil.

Today, practically all the sunflower seeds sown all over Iran is from this variety Record. In 1969, the Oilseed Research and Development Company imported 460 tons of Record variety from Romania and distributed it all over Iran for cultivation purpose.

Today, in our country all the researches that are carried out on sunflower are mostly of applied nature. The researches are undertaken in cooperation with the five colleges of agriculture all over the country. They are situated in Tehran, Shiraz, Tabriz, Ahwaz and Resaieh. These five locations represent various climatic and environmental conditions. Besides these colleges there are regional development projects such as Khuzestan, Ghazvin, Kohkilouyeh, Jiroft and Garmsar Development project, and still there are some other governmental institutions and many experimental stations of the Seed and Plant Improvement Institute of Ministry of Agriculture which have willingly undertaken the research work regarding sunflower seeds.

Problems of irrigation and fertilizer are also being solved by the above organizations, and the Soil Fertility Institute and the Ministry of Agriculture's Engineering Department are paying more attention to these subjects.

The studies and finding the solutions for the problems of pests and diseases of oilseeds are the responsibility of Pest and Disease Research Institute.

Lately, the Government of Iran has made an agreement with the Government of Yugoslavia for conducting research on oilseeds, especially the sunflower, and the experts from Yugoslavia are preparing and carrying out a vast programme for the studies of sunflower during the current year. Their programme includes the following subjects:

1. Developing varieties suitable for different regions of Iran.
2. To find the best cultural practices and methods through the agrotechnical studies.
3. Finding fertilizer recommendation rates in different parts of Iran.
4. Finding the best irrigation requirements in different regions of the country.
5. Finding the cause for the unfilled sunflower seeds in different areas of the country.

The research work for finding synthetic and hybrid varieties was started in the year 1969. For preserving the nucleus of Record seed a vast programme has been planned this year.

The Oilseed Research and Development Company has also extended its financial and technical assistance to these research cooperators on oilseeds. The company itself is very much interested in solving the agrotechnical difficulties and pest control problems. The company has its own laboratories and an extensive research division that point out the problems that arise in large scale farmings and bring to the attention of research centers.

Every year the research results on sunflower and other oilseeds are discussed in a seminar in which all the interested and cooperating research workers take part and the result of seminar printed in compiled form is distributed among the interested, and participating organizations. These seminars are generally held by one of the agricultural colleges in collaboration with the Oilseed Research and Development Company.

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#### DISCUSSION

Question: Are the oil varieties being used for table nuts also?

Answer: No. these are being used only for oil purposes because we have the table varieties that sometimes oil is not more than 26 to 28%. This variety is smaller than our local variety for nuts, therefore, people don't use it. They use the table variety from which the oil percentage is low.

Question: The oil content of the regular variety is 46 to 48% on a dry weight basis?

Answer: Yes.