

GENERAL ASPECT OF SUNFLOWER PRODUCTION  
DEVELOPMENT IN FRANCE

By

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In France and also in the other Common Market countries there is an important deficit of fatty substances and of proteins. The sunflower thanks to the quality of its oil and the oil cakes made with it, could take an important place in French vegetable production.

In 1943 large areas of ground were reserved for the growing of this cultivation - more than 35,000 hectares - but rapid decline in its cultivation was observed due to the low productivity of the varieties planted (striped grey from Provence, Jupiter, Rudolf). The oil produced rarely exceeded 500 kg per hectare.

In 1960 the introduction of varieties of Soviet origin with a high oil content (40 to 45% against 30 to 35% for the classic varieties) led to an increase in cultivation and, in 1963, the area of ground set aside for the Sunflower reached 35,000 hectares.

The areas declined once again due to the development of grey capitulum rot (*Botrytis cinerea*) in these varieties with a delayed cycle, the harvesting of which generally took place during a rainy period.

From 1964 to 1969 the cultivated areas varied between 12,000 and 16,000 hectares.

During this period the efforts made in research were particularly intense, first of all in the domain of genetic improvement, then in methods of cultivating.

This research program enabled:

- The development of an original simple hybrid sunflower of which the homogeneity and production security are higher than those of the varieties cultivated up to 1969 and of an extremely early variety created by the "Station d'Amelioration des Plantes" (Plant Improvement Centres) in Clermont-Ferrand and Montpellier.

- A better knowledge of cultivating techniques from soil preparation up to harvesting, according to the requirements of the plant.

For 1970 the sowing of the sunflower exceeds 25,000 hectares and it is reasonable to think that, in a few years, the areas reserved for this cultivation will exceed 50,000 hectares.

\*Paper presented at the conference by Jean Guy Pierre, Laboratoire Biologie CETIOM.

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.

In a parallel manner, the C.E.T.I.O.M. is realizing numerous tests to study new weed killer products, in relation with the services of private firms and the official departments.

Particular attention is paid research into the biology of diseases, in association with the pathology laboratories of the "Recherche Agronomique" and the Science Faculty. The most disturbing disease for the future of cultivation of the turnsol is mildew appeared in 1966.

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