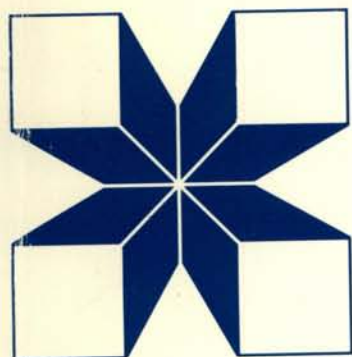


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C A N A D A

**OIL CROPS:
PROCEEDINGS OF THE
THREE MEETINGS HELD
AT PANTNAGAR AND
HYDERABAD, INDIA,
4 – 17 JANUARY 1989**

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This series includes meeting documents, internal reports, and preliminary technical documents that may later form the basis of a formal publication. A Manuscript Report is given a small distribution to a highly specialized audience.

La présente série est réservée aux documents issus de colloques, aux rapports internes et aux documents techniques susceptibles d'être publiés plus tard dans une série de publications plus soignées. D'un tirage restreint, le rapport manuscrit est destiné à un public très spécialisé.

Esta serie incluye ponencias de reuniones, informes internos y documentos técnicos que pueden posteriormente conformar la base de una publicación formal. El informe recibe distribución limitada entre una audiencia altamente especializada.

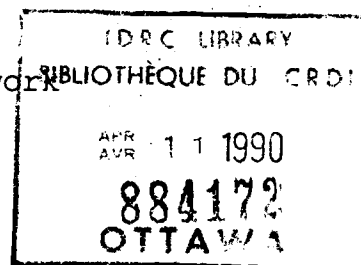
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**OIL CROPS:
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PANTNAGAR AND HYDERABAD, INDIA, 4-17 JANUARY 1989**

1. The Brassica Subnetwork-II
2. The Other Oil Crops Subnetwork-I
3. The Oil Crops Network Steering Committee-I

Edited by

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Organized by

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PRESENT STATUS OF SAFFLOWER IN EGYPT

Badr A. El-Ahmar

Safflower (*Carthamus tinctorius*) is an ancient oil crop in Egypt. It was planted and used as a raw material for many industries in Pharaonic era. The extracted oil was used as an edible and as painting oil. The petals were used as a source of pigment for clothes.

Safflower plant was also used as a border for winter crops like wheat, barley and fababean. The majority of the area was planted in upper Egypt, as a border of each farmer after flooding season.

This area was cultivated mainly for petals and used for salted food conservation and the seed was used for bird feeding.

After high dam, continuous irrigation system was established and the area occupied by cotton in upper Egypt increased, and the area occupied by safflower decreased from 4000 faddan to less than 10 faddans (1 faddan = 4,200 m²).

Due to the severe shortage in national edible oil production and the increase of annual consumption, and the limitation of edible oil sources for national extraction which depend mainly on cottonseed and soybean, it is essential to have other sources of edible oil. Those new sources are sunflower (summer) and rapeseed (winter) for new or old lands under irrigation. Safflower was devoted to the area which is rainfed. The annual precipitation ranges from 100 to 150 mm and in some years it reaches 200 mm. This area is located along the north coast and estimated to be more than 40,000 faddans.

Breeding Objectives

The breeding objectives of

safflower under rainfed conditions are discussed below:

1. Drought resistance

To select drought resistant varieties with a good spreading root system, high capability for water uptake and short duration or high growth rate. This is the main objective in safflower breeding program. For that, the available germplasm (80 landraces and introductions) were sown this season under rainfed condition in north coast area, for screening this material according to their performance.

2. Spineless varieties

Most of the agronomic practices are done by hand, so spineless varieties are preferred. However, their yield is low.

3. Early maturing variety

The amount of rainfall is higher January and February, and hence, an early maturing variety with a reasonable seed and oil yield is satisfactory.

4. Resistance to broomrape

Broom rape is a problem which spreads all over the country. *Orobanche carinata*, which attacks safflower, is more dangerous. Fortunately, there is a wide variability of susceptibility within the available germplasm. A breeding program for broomrape control will be started next season.

5. Resistance to salinity

The new land in north coast is characterized in many places by

high salinity. So, a variety which can tolerate or resist salinity is important for cultivation in this area.

The future expansion of safflower will be under rainfed areas. Since this area is cultivated to barley, an intercropping program should be conducted to give an answer for:

- suitable intercrop ratios,

- suitable plant density for both crops, and
- suitable varieties with minimum competition and reasonable yield per unit area.

We believe that expansion of safflower production in this area will offer a new source for edible oil and assist in increasing the national production.