In the available literature there is no previous report of the occurrence of *Saprolegnia diclina* on *Cyprinus carpio* var. *communis*. The present communication, therefore, extends the host range of *Saprolegnia diclina* to *Cyprinus carpio* var. *communis*.

The authors are indebted to the authorities of UGC New Delhi, for financial assistance, and to Dr. J. Patterson, Principal, Saint Andrew's College, Gorakhpur, for facilities. Thanks are also due to the authorities of N. E. Railway, Gorakhpur for their assistance.

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**VARIABILITY FOR SEED OIL CONTENT IN DIPLOID GENETIC STOCKS OF COTTON**

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**REFINED**
cotton seed oil is one of the best edible oils and is used in most parts of the world including USA, USSR, China and middle East. Genetic improvement in the seed oil content without bringing reduction in lint yield will be an added advantage. The knowledge of genetic variability present in the gene pool is of utmost importance for a breeder for this purpose. However, little information on this aspect is so far available and that too based on a few genotypes only. The pattern of variability for seed oil content was studied in 337 lines of *Gossypium arboreum* L. and 96 *Gossypium herbaceum* L. by non-destructive NMR using Newport analyser and is reported in this paper.

The success of genetic improvement depends upon the extent of variability present in the genetic stocks for the character to be improved. In the present study,
TABLE 1

Measures of variability for seed oil content in Asiatic cottons

<table>
<thead>
<tr>
<th></th>
<th>G. arboreum</th>
<th>G. herbaceum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range (%)</td>
<td>12.5-22.8</td>
<td>13.5-20.4</td>
</tr>
<tr>
<td>Mean (%)</td>
<td>21.63</td>
<td>16.96</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.76</td>
<td>1.58</td>
</tr>
<tr>
<td>Variance</td>
<td>3.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Coefficient of variability</td>
<td>8.1</td>
<td>9.32</td>
</tr>
<tr>
<td>S.E. ±</td>
<td>0.1</td>
<td>0.16</td>
</tr>
</tbody>
</table>

A wide range of variability was observed for seed oil content in both the species of diploid cottons (Table 1). The magnitude of variability was higher in G. arboreum L. (12.5-22.8%) than in G. herbaceum L. (13.5-20.4%). The extent of variability present in the genetic stocks of these species revealed the possible genetic improvement of seed oil content in diploid cotton varieties through hybridization and selection. Harland succeeded in increasing seed oil content by 7% in G. hirsutum L.

In the species G. arboreum L., four races namely bengalense, cerium, indicum and sinense were evaluated. The genotypes 79/21, Lohit (22.8%), Beshnoor (22.3%), AK12 (22.2%), H446 (22.2%), H162B (21.5%), AC733 (21.7%) and AK144 (21.4%) in bengalense; comilla (22.4%), 30820 (22.5%), 30848 (20.0%), 30847 (19.8%) and 30837 (19.6%) in cerium; Gao 16CB8 (21.0%), Gao CB9 (20.7%) and Gao 16CB4 (20.7%) in indicum; and Chinese broad lobe (20.6%), Chinese narrow lobe (21.2%), Chinese spotted (22.3%) and Chinese New Million Dollar (19.2%) in sinense were found elite types for seed oil content. Critical analysis of these four races revealed that the extent of variability was low in indicum compared to other races. Other races did not differ much from each other in this respect. In this study no relationship could be established between seed index and seed oil content.

In the species G. herbaceum L., only one race ie wightianum was evaluated. The ten best lines of this race for seed oil content were L. S. Early (20.4%), Baluchistan (19.9%), 3499 SS (19.3%), 4851 (19.2%), DMI110-10 (18.9%), HK86 (18.9%), 5424 (18.9%), Kumpta (18.9%), 569 (18.8%) and 1049 IV/5 (18.8%). The above mentioned lines of G. arboreum L. and G. herbaceum L. can be utilized in breeding programmes for improving seed oil content in the respective species.


FIRST RECORD OF A SIMPLE ASCIDIAN, MICROCOOSMUS CURVUS TOKIOKA 1954 FROM INDIAN WATERS

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In India only one species of Microcosmus (M. manaaensis) has so far been reported19 and the present form is the second one. It is seen attached to the pieces of coral stones in the intertidal zone of Tuticorin (Lat. 80° 47'10"N and Long. 78° 9' 60" E) near harbour. This species has earlier been reported only from Tokara5, Palau, Marian and Wake Islands4. Its occurrence in Indian waters has now been reported.

The taxonomical position of M. curvus is as follows:

Class: Asciidaeae; Order: Pleurogona; Suborder: Stolidobranchiata; Family: Pyuridae; Genus: Microcosmus Species: curvus.

The morphological characters of the species as observed are briefly given below.

Largest specimen measures 15 mm in length. The animal is roughly either oval or rectangular in shape and attached to the substratum either by the right ventral side of the body or wholly by their posterior end with test processes. The test processes are either plain and broad or branched and finger shaped. The branchial and atrial apertures are terminal and both apertures are 4-lobed. Siphons are somewhat long. They are either violet or red in colour.

Test: Leathery, very tough and coloured pink at the side of attachment. The anterior surface is much wrinkled. The test is without any adhering material.

Mantle body: Yellowish to colourless. Siphons are pale orange. Muscles are arranged very regularly as in other species of the genus.

Branchial sac: Generally reduced. Usually 5 folds on each side. Tokioka4 had noted even up to 8 folds and ventral folds may be rudimentary. The internal

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