Figure 1. First leaflet is healthy, second, to fifth showing progressive disease development starting from the tip in a typical V-shaped manner.

disease symptoms were reproduced after 72 hr of inoculation with spore suspension of the organism. This pathogen has been reported on cotton, tobacco and brinjal. It seems to be the first report on groundnut in India. The culture has been deposited with CMI under Herb. No. IMI 259681.

12 July 1982


GAMMA INDUCED YELLOW TESTA COLOUR MUTANT OF GREEN GRAM CV T44

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The mutation breeding work in green gram (Vigna radiata L. Wilczek) has been taken up to improve the economic traits leading to grain yield. As a result of gamma irradiation of green gram (variety T44), several mutants of different testa colours were screened at M2 generation. Earlier reports also indicate that many mutants for varied testa colours have been induced in pulse crops (red gram, khesari and soybean) following radiation mutagenesis. Besides, some high yielding mutants of green gram have been induced by gamma irradiation. In the present communication we report a yellow testa colour mutant that gives greater yields in comparison with its parent.

The cultivar T 44 exhibits a normal plant type with spreading and profuse branching, and the seeds are of green testa colour. Two hundred seeds (8-10% moisture) of the cultivar were exposed to gamma rays (60Co source) at 5, 10, 20, 30 and 40 kR doses. The M2 lines were raised from M1 progenies following plant to progeny method. Out of a number of mutant lines in M2 generation, a yellow testa colour mutant was scored from 20 kR gamma dose.

The mutant plant could easily be isolated from the mutagenic population due to green colour of its stem, branches and leaves in contrast to the slightly reddish colour of the parent plants. The segregation of a total of 98 plants in green and yellow testa colour in the ratio of 3:1 (78 and 20 plants, respectively) at M2 generation revealed that the mutant phenotype was due to a recessive gene (x2 values: parent, 0.22; mutant, 0.67). The data for the mean performance of the parent and the mutant, for certain yields and the yield contributing characters obtained from 10 random plants, from each of the 4 replications at M3 generation were compared by Student 't' test. It is evident from the data (table 1) that all the characters present in the mutant under reference were superior to its parent. In addition, a significant difference for the number of pods/plant, number of seeds/pod and

<table>
<thead>
<tr>
<th>Character</th>
<th>Parent</th>
<th>Mutant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant height (cm)</td>
<td>33.18 ± 0.19</td>
<td>34.24 ± 1.12</td>
</tr>
<tr>
<td>Number of branches/plant</td>
<td>3.52 ± 0.11</td>
<td>3.71 ± 0.12</td>
</tr>
<tr>
<td>Days to flowering</td>
<td>32.00 ± 2.16</td>
<td>34.26 ± 2.54</td>
</tr>
<tr>
<td>Number of inflorescences/plant</td>
<td>10.50 ± 1.20</td>
<td>10.23 ± 0.19</td>
</tr>
<tr>
<td>Pollen sterility (%)</td>
<td>4.40 ± 0.17</td>
<td>4.62 ± 1.17</td>
</tr>
<tr>
<td>Number of pods/plant</td>
<td>31.8 ± 1.26</td>
<td>45.16 ± 1.11**</td>
</tr>
<tr>
<td>Length of pod (cm)</td>
<td>6.63 ± 0.17</td>
<td>7.02 ± 0.14</td>
</tr>
<tr>
<td>Number of seeds/pod</td>
<td>10.57 ± 0.19</td>
<td>12.33 ± 0.21*</td>
</tr>
<tr>
<td>1000-grain weight (g)</td>
<td>38.50 ± 1.34</td>
<td>35.20 ± 1.36</td>
</tr>
<tr>
<td>Grain yield/plant (g)</td>
<td>10.80 ± 0.22</td>
<td>15.40 ± 0.18**</td>
</tr>
</tbody>
</table>

Significance * P < 0.05, ** P < 0.01.
Grain yield per plant was observed which merits the usefulness of the mutant as a higher yielder. As a recessive gene was involved for yellow testa colour in the mutant and the mutant showed enhancement in yield and other morphological characters, it can be inferred that either this gene has pleiotropic effect or more than one closely linked genes were involved to cause such variations.

The financial assistance of ICAR, New Delhi to one of us (RDSY) is acknowledged.

10 March 1982


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**PHOMA NEBULOSA (PERS. EX. S.F. GRAY) BERK., AN ADDITION TO THE FUNGI OF INDIA**

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During the survey of rhizosphere fungi, the authors have isolated *Phoma nebula* (Pers. Ex. S.F. Gray) Berk. from the rhizosphere soil of *Coriandrum sativum* L. (Umbelliferae) employing Waksman’s Dilution Plate method. A survey of literature revealed that *P. nebulosa* forms a new addition to the Fungi of India.


Colonies variable, mostly whitish to green and dull green to greenish olivaceous, attaining 6.5 cm in dia after one week incubation on oat meal agar medium in dark at 22°C, mycelial mat bushy; pycnidia spherical to irregular in shape, often with beak, conidia one celled, hyaline, ovoid to oblong, 3.5–8.0 × 2.0–3.5 μm (figures 1 and 2).


11 March 1982


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**TWO HITHERTO UNRECORDED DISEASES OF LEMON (CITRUS MEDICA VAR., MEDICA L.)**

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During investigations on post harvest diseases of citrus fruits, two interesting diseases of lemon (*Citrus Medica Var., Medica L.*) which were not reported earlier from India or elsewhere. Pathogenicity tests were conducted by scalpel injury as well as pin prick.