INTRODUCTION
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Rapeseed (Brassica campestris L.) and mustard (B. juncea (L.) Czern and Coss) are only next to peanut in Indian oilseeds. In India, they are grown mainly as 'Rabi' crops, occupying 3,892.7 thousand hectares of the cultivated land and provide 2,565.9 thousand metric tonnes of seed. The state of Uttar Pradesh with an area of 1,547.4 thousand hectares under oilseed crucifers cultivation and 811.6 thousand metric tonnes of production ranks first in Indian Union in acreage as well as in production (Anon, 1984).

Rapeseed and mustard have sundry of uses (Singh, 1958) ranging from human consumption to industrial uses. The infant leaves are used as green vegetables; the seeds and oil as condiments in the preparation of pickles and for flavouring curries and vegetables; in various culinary purposes as salad oil; in baking for improving the appearance of loaves; and in preparation of butter substitutes. Besides, it is used for lighting; for preparation of greases, soaps, paints, varnishes, hair oil; for quenching of steel plates; sizing of cloths and for softening of the hides in tanneries. Recently, industrial utilization of erucic acid, a component of Brassica crops is picking up. It is interesting that the cattle fed on 'taramira' cake are reported to be immune to tick-attack. Surplus cake is applied in organic manuring.
Despite the established importance of this group of crops, its productivity per unit area in India is very low as there has been no varietal break-through in rapeseed and mustard as in wheat and paddy crops. It can also be achieved for rapeseed and mustard by improved agro-techniques and growing high yielding varieties provided adequate check against various diseases and insect-pests is assured which oftenly appear the sole reason for its low productivity.

There are eighteen diseases occurring on several species of rapeseed and mustard. Out of them, three diseases are economically important namely (i) white rust caused by *Albugo candida* (Pers.) Kuntz (ii) Downy mildew caused by *Peronospora parasitica* (Pers.) ex Fr. and (iii) Alternaria blight caused by *Alternaria brassicae* (Berk.) Sacc., *A. brassicicola* Wilt. and *A. raphani* Groves and Skolko of which the former pathogen is of much more significance than the latters (Chohan, 1978). In India, Alternaria blight caused by *A. brassicae* was reported for the first time by Mason (1928) from Pusa, Bihar. Since then it has been reported from different parts of the country.

Alternaria blight is the most destructive disease as it causes extensive blighting on leaves as well as on silique; resulting in great reduction in yield. Damping-off of seedlings emerging from diseased seeds is also caused by *A. brassicae*. At present, the disease is appearing as a newer
threat for successful and profitable cultivation of rapeseed and mustard in Uttar Pradesh.

Earlier works are confined mainly to record the disease in India with little information on the pathogen and its control.

Considering the every day increasing demand of oilseed and oil in India and abroad, and in view of its possible future and role in national economy, the present investigations were undertaken to gather detail information on different aspects of *A. brassicae* causing Alternaria blight disease along with the following main objectives in view so as to workout its effective control measures:-

1. Study of symptoms of the disease on infected plant parts in field;

2. To isolate the pathogen from naturally infected plants and its pathogenicity test;

3. To study the effect of temperature, light, relative humidity, pH and culture media on the cultural and morphological characters and sporulation of the pathogen;

4. To study the effect of different sources of carbon, nitrogen, sulphur, phosphorus, amino acids, vitamins and growth regulators on the pathogen;

5. To study the nature of the disease and survival of the pathogen;
6. To find out the reaction of some promising cultivars to the pathogen under field and artificial conditions; and

7. To test the efficacy of various fungicides against the pathogen \((A. brassicae)\) in laboratory and the effective ones to be tested under field conditions.