

AEROMYCOLOGICAL INVESTIGATION OVER SOYBEAN CROP FIELD AT OSMANABAD

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ABSTRACT -

The present paper deals with over soybean, aeromycological investigation have been carried out at Osmanabad district for kharif season i.e. 15th June to 18th Oct 2016 using volumetric continuous Tilak air sampler to estimate different aerobiocomponents both qualitatively and quantitatively with respect to metrological parameters .The analysis of the aeromycoflora revealed the presents of following aerobiocomponents like, *Leptosphaeria* (35%), *Alternaria* (37.5%), *Trichozomis* (33.33%) and *Heterosporium*(30.7%), was recorded as the most dominant spore types, as well as *Botrydiala* (16%), *Ganoderma* (12.5%), *memnoniella* (6.66%) and *Bispora* (7.6%). was recorded as the lowest spore types.

Key words: - Aeromycology, Soybean, Air sampling, metrological parameter.

INTRODUCTION -

Aerobiology is scientific and multidisciplinary branch of science focused on transport of organisms and biologically significant material in to the air

It is know well that fungal spore all responsible for various diseases over economically important plant and caused loses of this crop.

The affect quality or quantity of the crop yield. The directly affecting economy of the farmer. They cause food scarcity as well as health problem in human being and animal being.

Soybean (*Glycine max* (L), merri, is a pulse kharif crop grown in this region economically soybean is important source of oil at present soybean is grown most of part of the India. However soybean is subjected the various fungal, viral and test diseases. (Lohare S.D (2016), Incidence of airspora over soybean field in Maharashtra state in India crops).

These aerobiological investigations carried out in Maharashtra. Through the school of Aerobiology by Prof S.T Tilak.

MATERIAL AND METHODS -

The result were obtained from an air sampling studies at (osmanabad district) osmanabad is one of the district place of Maharashtra state in India.

Tilak air sampler (Tilak and kulkarni 1970) was installed in soybean field at constant height of 1.5 miter.which provided continuous qualitative and quantitative data of airospora.the investigation was carried out in kharif season.

RESULT AND DISSCUSSION-

Month wise percentage contribution of each spore type of airospora for kharif season Revealed incidence. The spore type may be high rainfall, high relauev humidity as well as moderate temperature and prevalent metrological factors. Various variations in percentage contribution of different spore type during kharif season (2016), it showed variation it revealed that, June to July- *Leptospharia* (35%) was recorded as the most dominant and highest percentage spore type and *Botrydipola* (10%) as a lowest spore type. July to Aug - *Alternaria* (37.5%) was recorded as the most dominant and highest percentage spore type and *Ganoderma* (12.5%) as a lowest spore type Aug to Sep-*Trichoconis* (33.33%) was recorded as the most dominant and highest percentage spore type and *Memnoniella* (6.66%) as a lowest spore type .Sep to Oct - *Heterosporium* (30.7%) was recorded as the most dominant and highest percentage spore type and *Bispora* (7.6%) as a lowest spore type.

Leptospharia, *Alternaria*, *Trichoconis* and *Heterosporium* revealed highest month wise percentage contribution during June to Oct and *Botrydipola*, *Ganoderma*, *memnoniella* and *Bispora* revealed lowest month wise percentage during June to Oct in the kharif season.

Table 1: Variation in percentage contribution of different spore types during kharif season.

Sr.No	Dates	Total No of Spores obtained	Dominant Spore type	Lowest Spore type
1	15 June to 15 July	20	1. <i>Leptopsharia</i> (35%)	1. <i>Botrydipola</i> (10%)
2	16 July to 16 Aug	16	2. <i>Alternaria</i> (37.5%)	2. <i>Ganoderma</i> (12 5%)
3	17 Aug to 17 Sep	15	3. <i>Trichoconis</i> (33.33%)	3. <i>Memnoniella</i> (6.6%)
4	18 Sep to 18 Oct	13	4. <i>Heterosporium</i> (30.7%)	4. <i>Bispora</i> (7.6%)

CONCLUSION -

Aeromycological investigation over Soybean crop field at Osmanabad during June to Oct in kharif season (2016), Revealed interesting finding. Pathogenic airspora and showed monthly variation. in relation to metrological parameter and growth stages of soybean crop. These studies and extensive data for a long period is useful significantly in formulation and appropriate model for disease forecasting system for the protection of soybean crop from air borne diseases in our region.

Reference:-

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