

Research Paper :

Study of airborne imperfect fungi over bajra (*Pennisetum typhoids*) fields at Ahmedpur (M.S.)



R.M. KADAM, R.P. BIRADAR AND N.J.M. REDDY

International Journal of Plant Protection, Vol. 4 No. 1 (April, 2011) : 143-145

SUMMARY

Air sampling was carried out by using Tilak volumetric air sampler over the bajra crop during the *Kharif* season from 5th July 2005 to 9th October 2005. The main aim of the experiment was to find out the concentration of air borne fungal spores and their relation with disease incidence with growth stages of the crop. The most frequently occurred spore types, which contributed in considerable number were *Cladosporium* (154546/m³ of air), *Helminthosporium* (43512/m³ of air), *Curvularia* (43778/m³ of air), *Alternaria* (32340/m³ of air), *Nigrospora* (30604/m³ of air) and some other spores. The total airspora of imperfect fungi group was dominant in entire season as compared to the other groups. The imperfect group was represented by 410704/m³ of air with the percentage contribution of 67.49% to the total airspora of the *Kharif* season. Maximum concentrations of the imperfect fungal spores were recorded in the month of September in *Kharif* season. From aerobiological sampling, fluctuation in the concentration of fungal spores were observed in different growth stages of the bajra crop. Meteorological parameters such as temperature, relative humidity and rainfall were recorded through out the period of investigation to correlate with the incidence of fungal spores.

See end of the article for authors' affiliations

Correspondence to :

R.M. KADAM

Department of Botany,
Mahatma Phule Gandhi
Mahavidyalaya,
Ahmedpur, LATUR
(M.S.) INDIA
Email:rmk76@rediffmail.
com

Kadam, R.M., Biradar, R.P. and Reddy, N.J.M. (2011). Study of airborne imperfect fungi over bajra (*Pennisetum typhoids*) fields at Ahmedpur (M.S.). *Internat. J. Pl. Protec.*, 4(1): 143-145.

Key words :

Airspora,
Imperfect fungi,
Bajra

The present investigation deals with the aerobiological studies over bajra (*Pennisetum typhoids* Stapf. and Hubb.) var. NBH-1035 Shanti field at Ahmedpur, Dist. Latur (M.S.). India is one of the leading countries in the world for the production of bajra. Next to jowar, wheat and rice, it is important food and fodder crop of India. Like many other crops, bajra is also subjected to various types of plant diseases, which cause extensive damage by reducing the grain production and quality as well (Wilson *et al.*, 1996). Being an important food and fodder crop it was undertaken to conduct the aerobiological experiment.

The paper deals with the study of imperfect fungi group in *Kharif* season over bajra fields at Ahmedpur Dist. Latur (M.S.).

MATERIALS AND METHODS

Airspora studies were carried out by keeping the Tilak air sampler (Tilak and Kulkarni, 1970) in the bajra (*Pennisetum*

typhoids Staff. and Hubb.) fields at village Tambatsangvi, 4 km away from Ahmedpur Dist. Latur. The air sampling was started from 5th July 2005 to 9th October 2005. Air sampler was installed in the bajra fields with its orifice kept at a constant height at 1.5 meter above the ground level. Slide preparation and scanning were done for estimating spore type and their percentage contribution per day as per the criteria given by Tilak and Srinivasulu (1967). Identification of fungal spore was accomplished with the help of visual identification and consulting the literature of Ellis (1971), Barnett and Hunter (1972) and Tilak (1980) and Nair *et al.* (1986).

Incidence of the various spores of imperfect fungi has been recorded. During the period of investigations, meteorological data such as temperature, relative humidity and rainfall were maintained.

RESULTS AND DISCUSSION

The aerobiological investigations over

Received :

October, 2010

Accepted :

January, 2011