

## INTERCEPTION OF KARNAL BUNT IN WHEAT FROM RUSSIA

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Exchange of seed materials of various crops at international level has become greatly helpful in increasing the crop yield. Seeds are also the most important source of survival and long distance dissemination of plant pathogens and therefore, there is always a risk of introducing exotic pests and pathogens alongwith such imports into areas where they were not known to occur earlier. Karnal bunt or partial bunt or Indian bunt of wheat caused by *Neovossia indica* (Mitra, 1931) Mundkur, was first reported in India from Karnal (Mitra, 1931). At present it has been occurring in many states of India. In recent years, its occurrence has been recorded in Mexico, Afghanistan, Pakistan, Iraq, and Nepal (Duran, 1972; Locke and Watson, 1955; CMI, 1974; Singh *et al.*, 1989). It was intercepted for the first time in India during 1970 in wheat samples received from Mexico and in later years in seed lots imported from Lebanon, Syria, Turkey and Sweden (Lambat *et al.*, 1983).

During quarantine processing of four samples of spring wheat received from Krasnodar (Russia), a single seed in a sample of cv. Budinir showed the presence of sorus along the furrow. The sorus showed black powdery mass of spores covered by a thin membrane. The teliospores were dark brown in colour, spherical to oval, with reticulations on the episporangia which appears as curved spines and measured 22.0-25.0  $\mu\text{m}$  in diameter. The teliospores had truncate projections surrounded by a delicate membranous sheath. Based on morphological characteristics and the symptoms in seed, the pathogen was identified as *Neovossia indica* (Mitra, 1931) Mundkur. So far as the published records are concerned, Karnal bunt disease does not appear to have been reported from Russia. This interception constitutes the first record of its occurrence in that country. This interception also indicates that the disease has a wider

geographical distribution than was assumed in the past. *Neovossia indica* has been listed as a high risk pathogen (A-1) for European and Mediterranean region and for USA (EPPO, 1979).

### ACKNOWLEDGEMENTS

The authors are thankful to Dr. R.S. Rana, Director and Dr. V.K. Mathur, Head, Division of Plant Quarantine, National Bureau of Plant Genetic Resources, New Delhi for providing necessary facilities and Smt. Indra Rani Madnani, Technical Officer for help.

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