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SPECIES OF FORMER GENUS „*HELMINTHOSPORIUM*”
AS GRASS PATHOGENS

by

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S u m m a r y

- The literature data on *Pyrenophora* species as pathogen of grasses were given.
- For five species (*Pyrenophora bromi*, *P. dactylidis*, *P. dactyoides*, *P. erythrospila*, *P. lolii*) both teleomorph and anamorph states were cited.
- For six pathogens (*Drechslera catenaria*, *D. festucae*, *D. fugax*, *D. nobleae*, *D. phlei*, *D. poae*) only anamorph state *Drechslera* were quoted (Table 1).

INFLUENCE OF LOCALITY AND WAY OF TRANSMISSION ON SPREADING INTENSITY OF SOME POTATO VIRUSES

by

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Center for Potato, Guča

Summary

In the course of 1991 and 1992 spreading intensity of potato virus Y (PVY), potato leaf roll virus (PLRV) and potato virus X (PVX) in the localities with different intensity of infection was investigated. At the same time, monitoring flight of leaf aphids by the method of yellow traps and their identification was carried out in the same localities.

The results of the investigation proved that the spreading intensity of PVY was highest, considerably poorer of PLRV, while at the same time there were no plants infected by PVX. The most severe average infection by PVY was in the localities of high occurrence of infection (Vranjica and Kaona) and it was 54,% and 47,4% and at Javor 2,9% while the infection by PLRV was 3,5%, 4,6% and 0,7% respectively as follows. No infection by PVX was detected.

The most numerous aphids at Vranjica are: *Phorodon humuli*, *Aphis* sp., *Aphis craccivora*, *Aphis idaei*, *Phyllaphis fagi*, *Protrama* spp., and on Javor *Acyrtosiphon pisum*, *Aphis craccivora*, *Aphis fabae*, *Aphis* sp., *Brachycaudus helychrisi*, *Brachycaudus* spp., *Cryptomyzus ribs*, *Megoura viciae*, *Phyllaphis fagi*, *Sitobion avenae* und *Uroleucom* spp. In all these localities the occurrence of *Myzus persicae* was detected.

Patterson, C.L., Grogan, R.G., Campbell, R.N. (1986): Economically important diseases of lettuce. *Plant Disease* 70 (10): 982-987.

Patterson, C.L., Grogan, R.G. (1991): Role of microsclerotia as primary inoculum of *Microdochium panattonianum*, incitant of lettuce anthracnose. *Plant Disease* 75 (2): 134-138.

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MICRODOCHIUM PANATTONIANUM A PATHOGEN OF LETTUCE IN SERBIA

by

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The etiological study of lettuce anthracnose has shown that the fungus *Microdochium panattonianum* (Berl.) Sutton, Galea & Price was causal agent of the diseases. The fungus investigates represents an economically important and frequently present pathogen. Under the condition of artificial inoculations, all the fungus isolates from the lettuce proved to be highly pathogenic on the lettuce plants.

- The colony of *M. panattonianum* grown on PDA had a pale pink color. The hyphae were transparent, septate, 3,65 μm of width. Conidiophores may or may not be formed, 1-2 septate, hyaline, sparsely, branched near the point of origin and bearing 1-4 conidiogenous cells. Conidia of the pathogen had one, rarely two septa and were 14,08x4,24 μm ;

- Optimal temperature growth and sporulation of the pathogen was 15-20°C. Optimal pH value for colony development was 4,2-5,2, and the most favourable media for the colony development were corn meal agar. The fungus showed a more favourable colony development in permanent darkness than under permanent light conditions.

- The host range of *M. panattonianum* included the lettuce (*Lactuca sativa*), wild lettuce (*Lactuca serriola*) and *Cichorium endivia*.

- The fungus survived 16 weeks on host debris placing on the surface, at a 10 cm soil depth, and 48 weeks in the lettuce debris kept at 2 m above the ground.

PERICONIA PATHOGENS ON MAIZE ROOT AND STALK

by

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S u m m a r y

Fungi of the genus *Periconia* were identified as agents of maize root and stalk rot for the first time in Yugoslavia by Penčić et al. (1990). Because of the lack of information about these species the objective of our work was to determine the area and frequency of their presence in the maize belt under different cultivation conditions, as well as to identify the species present and to study their role in the etiology of maize stalk and root rot.

Maize root and stalk samples were collected from 25 different locations during harvest time in 1991, including Zemun Polje where different cultivation conditions were examined in 1990 and 1991. The cultivation conditions were as follows: a) in monoculture, in crop rotation maize-wheat, maize-soybean and maize-wheat-soybean, b) with and without tillage, c) with and without irrigation, d) with classical fertilisation and without fertilisation.

The following results were obtained. Fungi of the genus *Periconia* were more frequent on maize root than on maize stalk. They were less frequent when maize was grown in rotation with wheat and soybean and more frequent in maize monoculture without irrigation and with classical fertilisation and tillage.

Periconia species, specially isolate PSP2, caused mesocotyle and primary root necrosis and in some cases rot and collapse of maize seedlings.

Considering morphological, cultural and biochemical characteristics three species were identified: *P. mucrospinosa* (PSP1), *P. cicirinata* (PSP2) and *P. digitata* (PSP3). Biochemical changes in the mycelia soluble protein content of these species confirmed their taxonomic differences.

RESISTANCE OF WHEAT CULTIVARS TO *TILLETIA TRITICI*

by

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Center for Small Grains, Kragujevac² Faculty of Agriculture, Priština**S u m m a r y**

Common bunt, caused by *Tilletia tritici*, is a very spread disease on wheat in Serbia. In some localities it reduces wheat yield and quality very important. Cultivation of resistant cultivars, besides chemical seed treatment, contributes to elimination of yield losses due to bunt.

Because of this, during 1994 and 1995 the resistance of 100 wheat cultivars to *Tilletia tritici* was investigated. This paper shows the mode of reaction only 30 the most frequently cultivated cultivars in Serbia. In both years, resistant cultivars were Milica and Dična.

In the group of medium resistant cultivars there were Yugoslavia, Lasta, Danica, Pobeda, Desa, Žitnica, Fortuna and Kg 56.

Balkan, Rodna Fruškogorska, Rana 2, Proteinka, Srbijanka, Kraljevica, Ranka, Evropa, Kosovka, Gradištanka, Sremka and Stepa were medium susceptible. The cultivars Francuska, rana niška, rana 5, Evropa 90, Italija, Studenica and Ravanica proved to be very susceptible (Table 1).

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COMPLEX RESISTANCE TO RUSTS AND POWDERY MILDEW IN NEW TRITICALE LINES SELECTED IN YUGOSLAVIA AND BULGARIA

by

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Summary

The results of resistance of new triticale lines selected in Yugoslavia (Center for Small Grains, Kragujevac) and Bulgaria (Institute for Wheat and Sunflower, General Toshevo) of the pathogens powdery mildew, stem and leaf rust were showed. Many of these triticale imbred lines possess factors for complex resistance. The most important lines from Yugoslavia are III-8-2, 207/1, 208/5, 219/6, 32/3, 11/13, 4/1, 1/3, 2/4, 3/7, 15/7, 32/7, 49/7, 10/8, 16/9, 10/11, 10/4, 11/4, and from Bulgaria 1273-3-2, 1265-3-12, 1285-2-2-14-3, 1285-2-2-14-5, 1260-129/92, 1285-2-2-4-15, 1285-8-1-17-6.

Considering the high productive potentials and their response to the pathogens these lines could be proposed, as sources of resistance to powdery mildew (*Erysiphe graminis f. sp. tritici*) and rusts (*Puccinia graminis f. sp. tritici* and *Puccinia recondita f. sp. tritici*) as well.

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PARASITOID COMPLEX *SCOLYTUS INTRICATUS* RATZ. (COLEOPTERA, SCOLYTIDAE) IN THE REGION OF SERBIA

by

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Summary

Oak bark beetle, as the vector of the spores of the vascular fungus *Ophistoma piceae* (Münch.) H. et P. Sydow, is a significant link in the chain of agents of oak forest decline in Serbia. As the number of the present adult beetles of *S. intricatus* in nature directly affects the intensity and the rate of fungus widespreading, during 1992 and 1993, its parasitoid complex was researched in detail. The research included 43 samples from 22 localities in Serbia.

By the determination of the obtained parasitoids, the following species have been identified: *Platygerrhus maculatus* Erdős, *P. ductilis* Walker, *Rhaphitelus maculatus* Walker, *Rh. ladenbergi* (Ratz.) Bouček, *Acrocormus semifuscatus* Thoms., *Cheiropachus quadrum* (F.) Westwood, *Rhopalicus tutela* Walker (Chalcidoidea, Pteromalidae), *Eupelmus urozonus* Dalm. (Chalcidoidea, Eupelmidae), *Eurytoma morio* Boheman. (Chalcidoidea, Eurytomidae), *Entedon ergias* Walk., *E. euphorion* Walk., *Entedon* sp. (Chalcidoidea, Eulophidae), *Dendrosoter protuberans* Ness., *Spathius brevicaudis* Ratz., *Coeloides sordidator* Ratz. and *Ecphylyus silesiacus* Ratz. (Ichneumonidae, Braconidae). *P. maculatus* Erdős., *P. ductilis* Walker, *Rh. tutela* Walker (Pteromalidae, Chalcidoidea) and *C. sordidator* Ratz. (Braconidae) have been identified for the first time as the parasitoids of *S. intricatus*.

The species *P. maculatus*, *R. ladenbergi*, *R. tutela*, *E. euphorion*, *S. brevicaudis* and *C. sordidator* are the new species in the fauna of Yugoslavia.