

**EFFECT OF SOME FUNGICIDES ON GROWTH OF
RHIZOCTONIA SOLANI, CAUSAL ORGANISM OF SHEATH
BLIGHT DISEASE OF RICE, ON MEDIA AND IN THE
FIELD¹**

M. TORABI² and H. BINESH³

SUMMARY

Effect of eight different fungicides were studied on growth of mycelia of *Rhizoctonia solani*, the causal organism of sheath blight disease of rice, on P. D. A. in laboratory. Results indicated that Benomyle, Iprodione + Carbendazim and Mepronil with 50 PPM, Carboxin + Thiram and Carbendazim with 100 PPM, Edifenphos with 200 PPM and Zineb with 400 PPM inhibited the mycelial growth.

In field trials carried out in 1983 and 1984, Iprodione + Carbendazim, Benomyle and Validamycin showed good efficacy on decreasing the disease severity and yield increase, while Meronil, Zineb, Carboxin + Thiram and Edifenphos had less efficacy.

1- Received for publication, December 10, 1986.

2- Eng. Mohammad Torabi, P. O. BOX 19395 - 1454, Plant Pests and Diseases Research Institute, Tehran, Iran.

3- Eng. Hassan Binesh, P. O. Box 24, Plant Pests and Diseases Research Lab., Nashtarood, Iran.

REFERENCES

- ANNONYMOUS, 1980. Control and management of rice pests and diseases. IRRI Annual Report for 1980, 153 - 165.
- BINESH, H. and TORABI, M., 1984. Annual report of sheath blight disease of rice in Mazandaran (Unpublished).
- CHEN, C. C. and CHU, C. L., 1973. Study on the control of rice blast and sheath blight of rice with benlate. *J. Taiwan Agric. Res.* 22 : 41 - 46.
- FURUTA, H., 1973. Validamycin (trade name: Validacin), a new antibiotic for sheath blight of rice, - Japan Pesticide Information, 15 : 28 - 30.
- HORI, M., 1984. Present status of occurrence and chemical control of sheath blight in Japan. - Japan Pesticide Information, 44 : 6 - 10.
- KOZAKA, T., 1961. Ecological studies on sheath blight of rice plant caused by *Pellicularia sasakii* (Shirai) S. Ito, and its chemical control. — Chugoku agric. Res, 20 : 1 - 133.
- LAKSHMANAN, P., NAIR, M. C. and MENON, M. R., 1980. Comparative efficacy of certain fungicides on the control of sheath blight of rice. - Pesticides, 14 : 31 - 32.
- ROY, A. K. and SAIKIA, U. N., 1977. Chemical control of sheath blight of rice. - Indian phytopathology, 29 : 354 - 356.
- SEKIZAWA, H., HASHIMOTO, T. and ITO, S., 1962. Control of sheath blight disease of rice by mist spray. *Ann. Rep. Soc. pl. prot. North . Japan*, 13 : 149 - 150.
- VARMA, A. S. and MENON, M. R., 1977. Fungicidal trial on the control of sheath blight of rice. - *Madras Agric. J.* 64 : 416 - 417.
- YAMAMOTO, H., IWATA, T., SHIBATA, M., MIZUNO, K. and MIYAKE, A., 1963. *Streptomyces multispiralis* nov. Sp. and a new antibiotic, neohumidin, which controls sheath blight, *Pellicularia filamentosa* Sasakii on rice. - *Agric. Biol.. Chem.*, 29 : 360 - 368.
- YOSHIMURA, S., 1954. On the scale for estimating degree of severity of sheath blight by *Hypochnus sasakii* Shirai in rice plant. *Ann. Phytopath. Soc. Japan*, 19 : 58 - 60.