

EFFICACY OF FUNGICIDES FOR THE CONTROL OF FUSARIUM HEAD BLIGHT IN WHEAT: COOPERATIVE TRIALS RESULTS - 2014 CROP SEASON

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Wheat scab, caused by the fungus *Gibberella zeae*, is one of the most important diseases of this cereal. In favorable weather conditions, the fungus can cause large reductions in yield. Furthermore, there may be mycotoxin accumulation in grain being Deoxynivalenol (DON) the most common and extremely toxic to humans and animals. To control the disease is recommended integrated management, including the use of less susceptible cultivars, crop rotation, choice of appropriate time and place, and fungicide application. To identify the most effective fungicides for control of this disease, a network of experiments with standardized protocol was started in 2011 in different regions of Rio Grande do Sul and Parana. In 2014, experiments were carried out in Cruz Alta-RS, Passo Fundo-RS, Giruá-RS, Agua Santa-RS, Londrina-PR, Guarapuava-PR and Ponta Grossa-PR.-We evaluated the efficacy of fungicides in reducing disease, mycotoxin content and reducing the loss in grain yield. The experimental design was randomized blocks, with eight treatments with different fungicides (T1 to T8) and 4 repetitions. Analyzing all the experiments, the best values for grain yield were obtained by T3 - trifloxystrobin + prothioconazole (two locations), T5 - propiconazole (three locations) and T8 - pyraclostrobin + metconazole (1 site). The lowest values in incidence/disease-severity were obtained in T3 (3 places), T5 (3 locations), T8 (3 locations). The lowest values in accumulation of DON were obtained in T6 – propiconazole + carbendazim (3 places) and T8 (2 locations). Other product reviews did not get highlights. We conclude that, although the results have been varied according to the location of the experiment, the active ingredients trifloxystrobin + prothioconazole, pyraclostrobin + metconazole, propiconazole and propiconazole + carbendazim, were most often highlighted in control of FHB, in reducing accumulation of DON and reducing loss caused by the disease in grain yield in wheat.

Keywords: wheat; scab; fungicides; control

2003 . Fusarium head blight in wheat. The Plant Health Instructor. DOI:10.1094/PHI-I-2003-0612-01 Updated 2010. DISEASE: Fusarium head blight (FHB) or scab. Chemical controls, such as fungicides, provide partial control of FHB and associated mycotoxin contamination. A number of foliar fungicides have been used to manage FHB in some areas and are applied around the period of wheat flowering. In many areas, fungicides are rarely used for FHB control because of high cost, variable efficacy, and the erratic nature of FHB epidemics. Research continues to identify fungicides that are more effective for the control of FHB. Many commercial fungicides that are routinely used for cereal seed treatment also reduce the risk of Fusarium seedling blight. Fungicides for Fusarium Head Blight. Gibberella Ear Rot. Transcription. Management of Fusarium head blight is critical and the fungicide application timing is very important although we don't see the symptoms of Fusarium head blight until later in the season the fungus actually infects during early flowering and so that's the timing that we need to aim for for optimal management of this disease early flowering or Feekes 10.5.1. is a difficult growth stage to determine without careful scouting in the field. You can see those yellow anthers are just starting to extrude from the center of the wheat head. Anthers will continue to emerge on the head as it passes Cooperative Extension. Fact Sheets. Fungicide Efficacy for Control of Wheat Diseases. Fact Sheets And Publications. Cooperative Extension. Production Recommendations. Variety Trial Results. Commercial Field Crops. Commercial Horticulture. Sustainable Landscapes. Differences in efficacy among fungicide products were determined by direct comparisons among products in field tests and are based on a single application of the labeled rate as listed in the table. Table includes most widely marketed products, and is not intended to be a list of all labeled products. For the complete table, click here. UD Cooperative Extension. This institution is an equal opportunity provider. # Ear blight caused by Fusarium culmorum or Fusarium graminearum. Performance against Microdochium species may differ. Control level. Mixtures and alternations of fungicides with different modes of action, from different fungicide groups, are often most effective and reduce the likelihood that fungicide resistance will develop in pathogens. Resistance poses a significant threat to the on-going performance of fungicides and resistance management must be taken into account when planning fungicide programmes. Fungicides are rigorously tested in AHDB Cereals & Oilseeds-funded trials. Each year, a single spray is applied at a range of doses on varieties that are very. Table 2. Seed treatment options. Seed-borne diseases. Fusarium head blight (FHB), also known as scab, is a fungal disease of small grain cereals including wheat, barley, oats, rye, corn, triticale, canary seed and some forage grasses. In Saskatchewan, durum wheat, spring wheat, and barley are most affected by this disease. FHB results in a reduction in yield, grade and end-use quality. Management Strategies for Fusarium Head Blight. An integrated approach is needed for controlling the spread and development of FHB. Fusarium crown rot on wheat seedlings. Foliar Fungicides - Foliar fungicides are registered for the suppression of FHB, however, results are not consistent or may not be economical. Several factors should be considered when deciding whether to spray.