

BRAZILIAN TRIALS NETWORK FOR THE CONTROL OF FUSARIUM HEAD BLIGHT AND WHEAT BLAST**F Santana¹**, D Lau¹, JL Maciel¹*Embrapa Trigo, Passo Fundo, Brazil*

Fusarium Head Blight (FHB) and Wheat Blast (WB) are the main diseases in wheat spikes reducing grain yield in Brazil. FHB is more frequent in the southern region and WB in the Center-West and Southeast regions of Brazil. The level of resistance of commercially available cultivars to these two diseases is low, varying from susceptible to moderately resistant. In order to improve the control of these diseases and reduce losses, effective fungicide sprays are required at the time of susceptibility window to these diseases, which is from the beginning heading to the full flowering. Depending on the season, in some places, WB can cause losses up to 100% of the crop. Although less aggressive than WB, FHB can be more threatening because of mycotoxin grain contamination, which the most common and more abundant is Deoxinivalenol (DON). Brazilian legislation established a maximum tolerance limit of 1000 µg / kg for DON contamination in whole wheat. In order to identify the best fungicides and the best strategy for the management of these diseases (using different spray nozzles types, nozzles angles, and spray solution) a Brazilian Research Network for the control of FHB and WB was established in 2010. Since 2011, several field experiments have been conducted by partners in research institutions from many Brazilian States as Rio Grande do Sul, Paraná, São Paulo, Minas Gerais, Mato Grosso do Sul, Mato Grosso and the Federal District. For each pathosystem, a standardized protocol was developed for the trials, which is used to guide the partners regarding experimental design, plot area, fungicides and its dosage applied, disease incidence and severity assessment, grain yield determination, and crop management. Data obtained over 8 years of trials evidence that the efficiency of commercially available fungicides in field conditions is still low. The active ingredients that have presented better results are: mancozeb, for WB control, and piraclostrobin + metconazole, for FBH control. This last combination has shown good efficiency, not only for controlling FHB but also for reducing DON levels. For wheat blast, it has been shown that the efficiency of control is dependent on disease and epidemic pressure. At high pressure the control can be null.