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Project ID: 0304-AL-058

Research Area: EDM

Project Title: Effect of inoculum level on FHB development and determination of *G. zeae* population on leaves.

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ARS Agreement #:

Duration of Award: 1 Year

PROJECT 1 ABSTRACT

(1 Page Limit)

Currently, wheat growers in North Dakota are mainly depending on fungicides and cultural practices to combat FHB because of unavailability of resistant cultivars. This situation forces the researchers, especially the epidemiologist, to search for a disease forecasting system which could significantly predict the time of infection periods, and give wheat growers enough time to make the decision if they need to spray fungicides on their crop. Knowledge of sources of inoculum and its level, and weather conditions for the disease development is crucial in devising a precise disease forecaster. The experiments proposed in this research project would provide information on the variables described above. The data obtained from North Dakota will be compared with the data of other collaborators who are using the same protocol, from Ohio, Indiana, Pennsylvania, and South Dakota. Additionally, the role of wheat foliage in harboring FHB pathogen and its affect on the disease incidence and severity will be explored. In conclusion, the information gathered in this research would ultimately speed up the efforts in the development of a disease forecaster, and would help wheat producers better manage the disease.