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PROJECT 1 ABSTRACT
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FHB has become more problematic in durum in North Dakota because of environmental conditions that favor its development being more common in the northwestern portion of the state where durum production is currently most important. Controlling FHB is challenging and requires an integrated approach. Some of the new durum varieties have improved FHB resistance, though not at the same level as that incorporated into some of the spring wheat varieties. These newer varieties have not yet been widely adopted. In the last few years, DON has frequently been reported as a problem in durum in North Dakota. Furthermore, though fungicides have been registered that provide some level of control of FHB in durum, most growers have limited experience with their use. The integration of resistant varieties and fungicides may provide the desired level of FHB control, particularly in years of high disease pressure. Farmers need good data to help them adopt improved FHB management practices. Information is needed to help quantify the importance of varietal resistance, fungicides and their combination on FHB control in durum. Experiments will be established that will include a factorial combination of durum variety and fungicides applied at the recommended stage. The primary experimental location at Carrington will be misted. Data on yield and DON will be taken to determine the effect of variety, fungicide and their interaction. Information from these experiments will be extended during grower meeting in the fall and winter to encourage the adoption of best management practices. This project will provide information on the value of the current level of FHB resistance in durum cultivars under very high and moderate disease pressure and on the effectiveness of fungicides on the control of FHB and other diseases and the profitability of their use. It will also provide information on the value of an integrated approach to FHB control in durum.