PI: Sneller, Clay **PI's E-mail: sneller.5@osu.edu**

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PROJECT 2 ABSTRACT

(1 Page Limit)

Many breeders work with Asian sources of resistance to complement native resistance. Multiple sources of resistance are needed to accumulate the complimentary genes needed for FHB resistance. The diploid wheat (D genome) *Triticum tauschii* (= *Aegilops squarrosa*) is potential source of resistance as are Brazilian wheat. We propose to map QTL from a CIMMYT lines that may have resistance genes from T. Tauschii as well as Brazilian sources. The CIMMYT line, referred to as CASS94-A, was crossed to OH685, an adapted but susceptible soft red winter wheat. We developed 176 F4:5 families from the cross and obtained one year of phenotypic data in 2007. Preliminary data indicated good segregation for resiatnce and some lines showing excellent field tolerance to FHB. In 2008 we will generate replicated phenotypic data on Type I, Type II, and DON in OH and MI. We will also screen the population for the effect of known QTL on resistance. The work in FY08 will determine the degree of resistance in the population and if it segregates for novel resistance genes.