Infection and development of spot blotch and tan spot on timely and late seeded wheat

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Foliar blight (FB) of wheat, a complex disease caused by *Cochliobolus sativus* (Cs), and *Pyrenophora tritici-repentis* (Ptr), is an economically important disease of wheat in South Asia. There is limited information available on the effects of wheat genotypes on FB epidemic under rice-wheat cropping system. Field experiments were conducted in 2 yrs to determine infection potential and epidemic development of Cs and Ptr on timely (Nov-26) and late (Dec-26) seeded susceptible and resistant wheat genotypes. The dynamics of airborne conidia were studied by collecting plant tissues as well as using air samplers. The highest conidial concentration and maximum number of leaf infection by both pathogens were detected during the first three weeks of March in both years. Cs became predominant in early maturing susceptible wheat genotypes (Sonalika, and BL1473) during Zadok's DC 51 to 58 growth stage, while Ptr occurred after Zadoks' DC 71 growth stage. Both Cs and Ptr became predominant in resistant late maturing wheat genotypes (Milan/Shanghai#7 and NL750) before Zadoks' DC 51 and after Zadoks' DC 71 for all seeding dates. Resistant genotypes had higher disease severity when planted after Dec-26. The disease complex reduced an average of 25% grain yield in both years. The findings suggest that wheat seeding date in South Asia should be adjusted between Nov-26 and Dec-11 in order to reduce the effect of FB epidemics on grain yield.