

The Effect of Spore Origin when Screening for Resistance against Common Bunt

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Screening wheat varieties for resistance against common bunt is often done by adding a uniform sample of spores to a number of wheat varieties. The spore sample is often maintained on a susceptible variety from year to year. The problem with this design is that there are no replicates of the spore sample. It is therefore not possible to conclude what would be the result if a different spore sample was used. A simple way to improve this system is in the second year of experiments to test the varieties with low infection levels with both the spore sample, and in addition to that to use spores of the same variety from previous years trial. Often, the use of spores from the same variety will result in a higher infection level than using spores from other varieties, and this indicates the build up of virulence against one or a limited number of resistance genes. In the third year of experiments, cross inoculation of varieties with spores from different semi resistant varieties can give valuable information about which varieties have the same or different specific resistance genes.