

Seed treatments to eradicate *Pyrenopeziza brassicae* from infected mustard (*Brassica juncea*) seed

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Light leaf spot of brassicas is caused by *Pyrenopeziza brassicae*, a new disease to the USA. The fungus can be seedborne and seed transmitted. A seed lot of 'Caliente 199' mustard (*B. juncea*) infected with *P. brassicae* was used to assess the efficacy of chlorine (1.2% NaOCl for 10, 20, 30, and 40 minutes), hot water (50°C for 15 and 30 minutes), steam (62.8, 65.6, 68.3, and 71.1°C), and 10 fungicide treatments to manage seedborne *P. brassicae*. Each seed treatment was compared to non-treated seed, and fungicide treatments were also compared to seed treated with a polymer colorant (seed coating) added to each product. All treatments reduced the incidence of seed infected with *P. brassicae*, from an average of 13.5% for non-treated seed to 0 to 4.3%, based on seed health assays. Likewise, all treatments, including the seed colorant control treatment, reduced seed transmission of *P. brassicae* from an average of 3.4% for non-treated seed to 0 to 0.4%. Seed transmission was not observed for the hot water, steam, and six of the fungicide treatments (azoxystrobin, fludioxonil, iprodione, thiabendazole, pyraclostrobin + boscalid, and difenoconazole + fludioxonil + mefenoxam + sedaxane + thiamethoxam). The hottest steam treatment reduced seed germination from 98.0% for non-treated seed to 90.0 and 93.8% in Trials 1 and 2, respectively. The results demonstrate there are effective organic and conventional seed treatments for management of *P. brassicae*.