

Effect of chemical seed treatment on the germination and seedling vigour of canola (*Brassica napus* var. *oleifera*)

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Incubation studies were conducted to determine effects of two chemical seed treatments (Cruiser & SA-combination) on the germination and seedling vigour of canola (cv. Varola 44) seed. Germination percentages of the Cruiser and SA-combination treated seeds were not significantly reduced compared to untreated seeds (control) under favourable temperature and water conditions. After exposure to high temperature (41°C) and humidity to accelerate ageing of the seed, germination and seedling vigour were reduced by both seed treatments. In contrast to differences in germination which decreased with time of incubation, the effect of both chemical treatments on seedling vigour increased as the incubation period increased. As expected, phytotoxic effects increased with increasing application rates, but significant differences in germination percentage and seedling growth between similar rates of the two chemical treatments indicated that the SA combination treatment was more phytotoxic than Cruiser.

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