

Tests on improving purity in hybrid seed (*Brassica napus* L.) production by breeding glyphosate tolerant restorers

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Using an oilseed rape germplasm, glyphosate tolerant restorer lines of the cytoplasmic male sterile line YN01A have been developed and the feasibility of using the restorers to improve purity in hybrid production was investigated. Hybrid seeds were produced by natural pollination when relevant artificial pollinated hybrid seeds as controls were obtained in order to determine self-pollination rate of the male sterile line. Field trials indicated that the non-hybrids were killed and excluded from the F₁ population by spraying hybrid seedlings with 0.2% glyphosate. It is helpful to introduce herbicide-resistant restorers into CMS system to clean up unstable male sterility of female parents for improving hybrid seed purity.