**Supplementary material – visual abstract**



**Figure S1.** Wild radish plants (population 86-2020) recovering from herbicide damage and surviving pyrasulfotole + bromoxynil treatment.



**Figure S2**. Wild radish plants (population 91-2020) recovering from herbicide damage and surviving pyrasulfotole + bromoxynil treatment.



**Figure S3.** HPPD inhibitor-resistant wild radish (progeny of population 91-2020) surviving treatment with pyrasulfotole + bromoxynil (37.5+210 g ha-1) treatment in a trial conducted in the field where resistance has evolved over the last 10 years of continuous HPPD inhibitor use.