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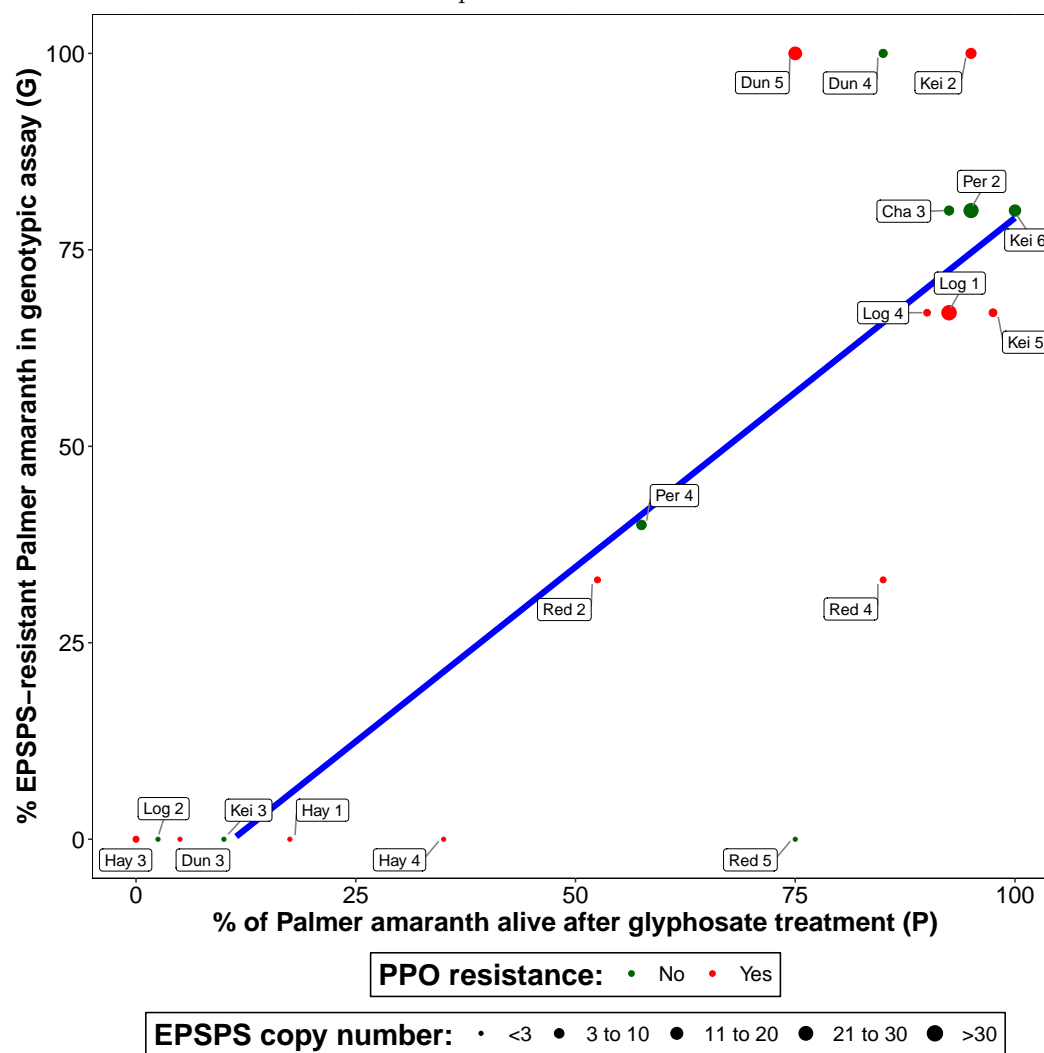


Figure 1: Correlation between EPSPS-inhibitor resistant *Amaranthus palmeri* individuals with phenotypic (glyphosate) and genotypic (*EPSPS* gene amplification) resistance assays. Dots are color coded to indicate resistance to PPO inhibitors, based on genotypic assays (Δ G210 mutation).

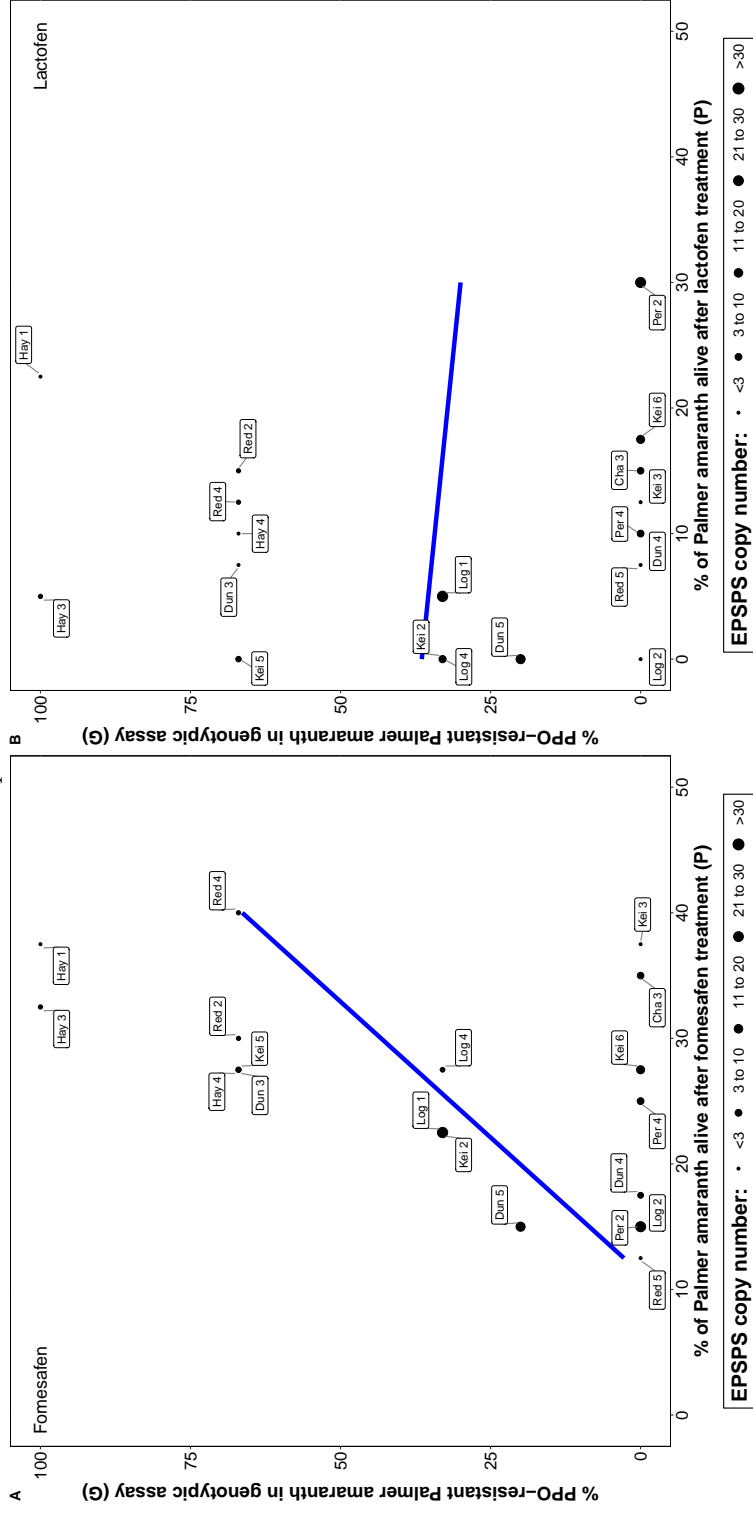


Figure 2: Correlation between PPO-inhibitor resistant *Amaranthus palmeri* individuals with phenotypic (fomesafen [A] and lactofen [B]) and genotypic (Δ G210 mutation) resistance assays.

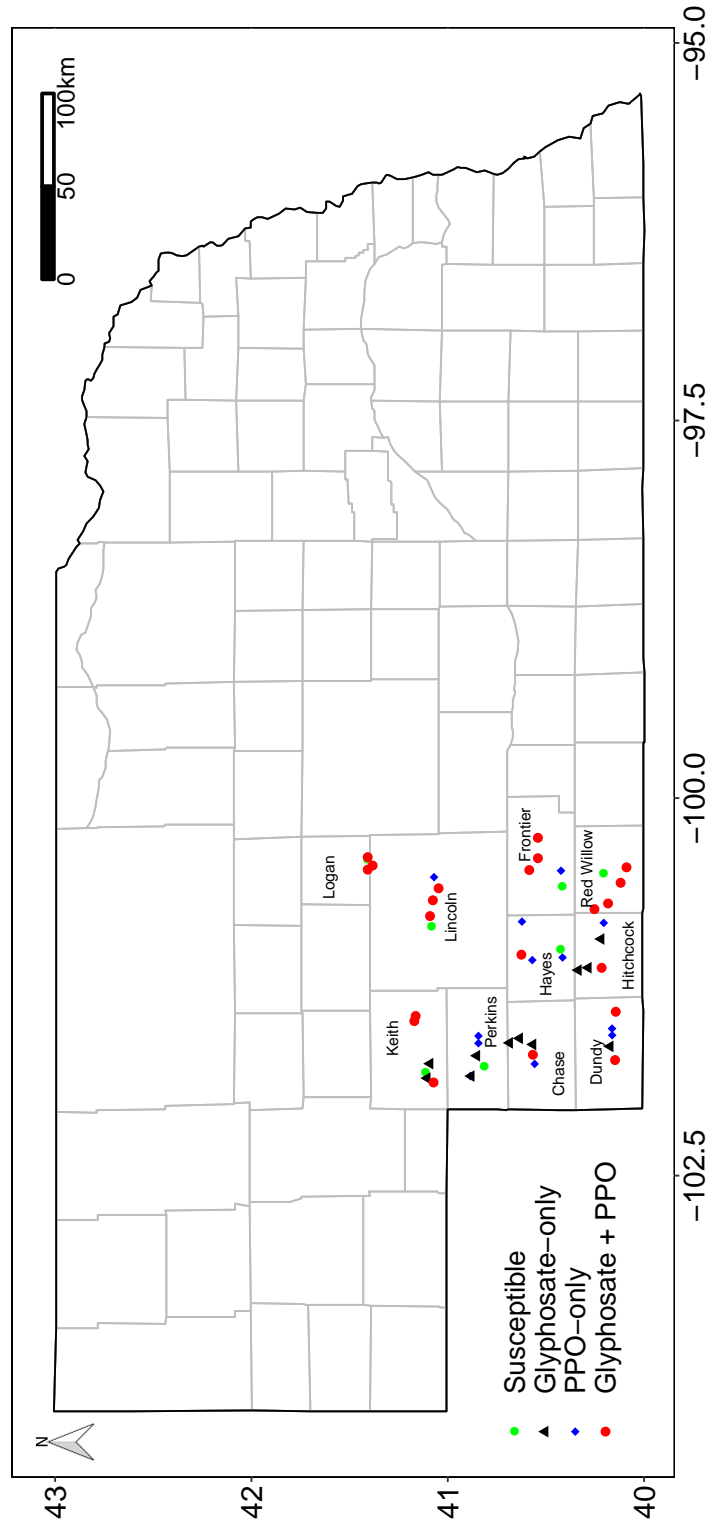


Figure 3: Presence of EPSPS- and/or PPO-inhibitor resistance based on genotypic resistance assay in 51 *Amaranthus palmeri* populations from southwestern Nebraska.

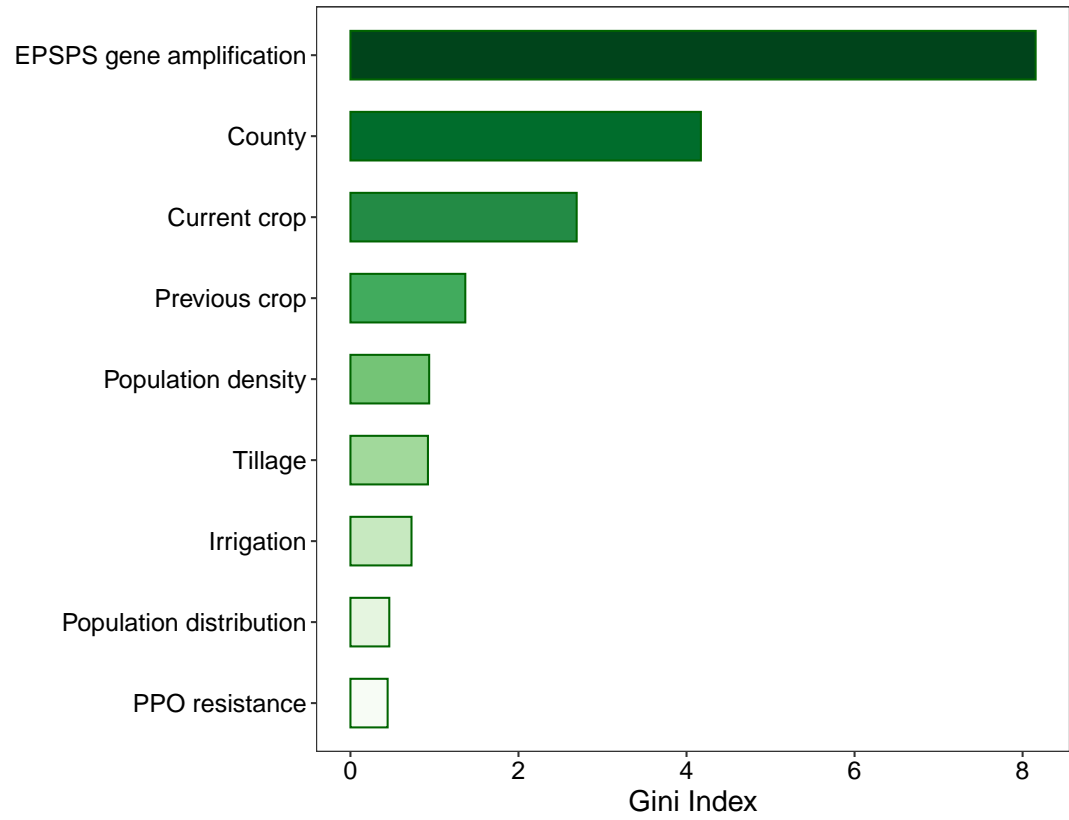
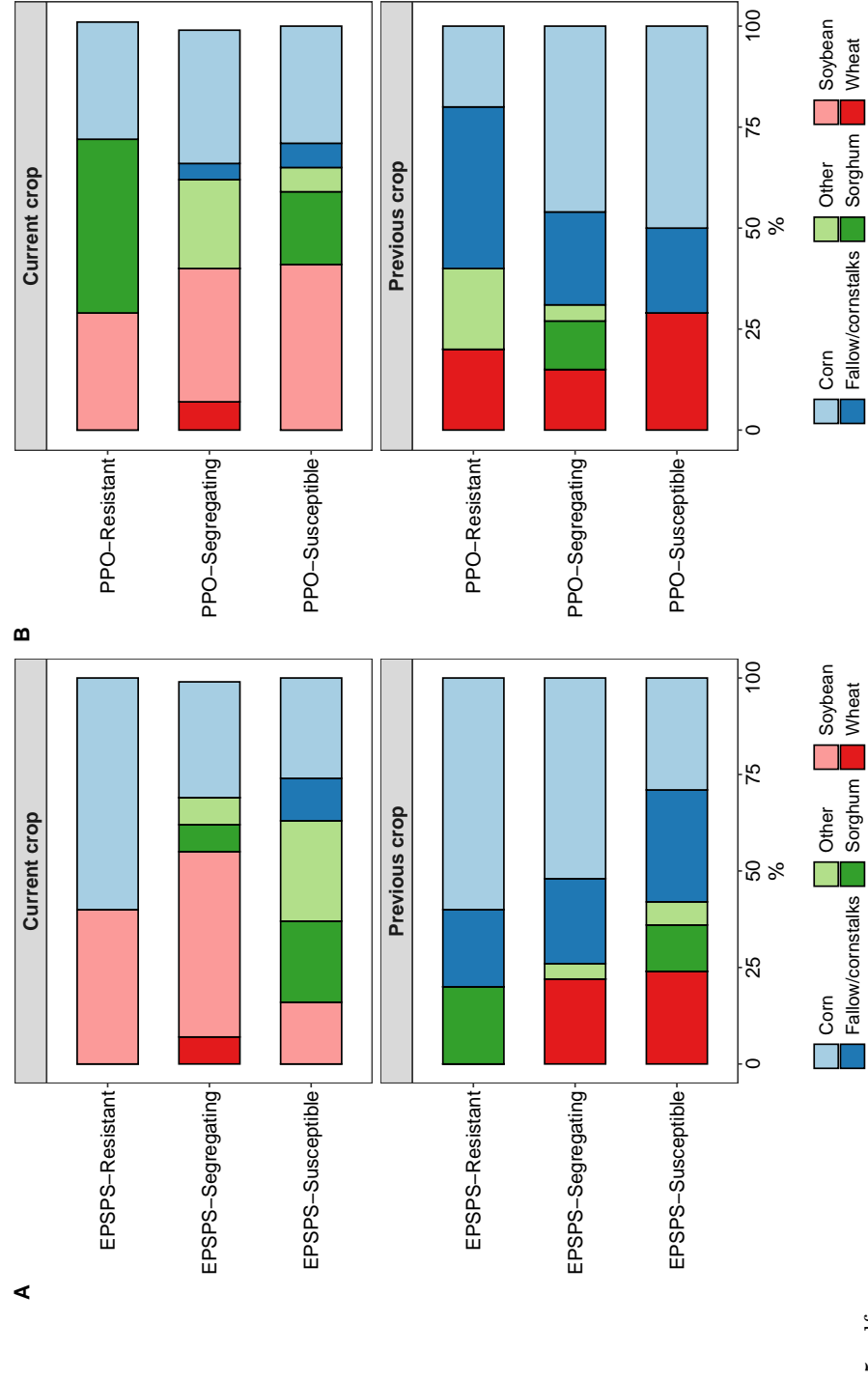


Figure 4: Random forest analysis of likelihood of EPSPS-inhibitor resistance (genotypic assay) in *Amaranthus palmeri* populations in response to mechanism of resistance, agronomic practices, and geographic location and weed demographics in southwestern Nebraska. Variables are ordered by importance measured using the Gini coefficient.



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Figure 5: Percentage of diversity in current and previous crop where the EPSPS-(A) and PPO-(B) resistant *Amaranthus palmeri* populations was found in southwestern Nebraska. Based on genotypic resistance assay, populations are grouped into EPSPS- or PPO-Resistant, EPSPS- or PPO-Segregating and EPSPS- or PPO-Susceptible representing *A. palmeri* with all resistant, partially resistant, and no resistant individuals, respectively. Other crops are represented by snap beans