**Investigating glyphosate resistance in *Amaranthus palmeri***

**Biotypes………**

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*Amaranthus palmeri* is a troublesome weed which is growing in importance worldwide. It causes serious competition in many crops. *A. palmeri* was introduced into Turkey 4–5 years ago and appears to adapt to different environmental conditions. weed………………………………………………The objectives of our studies were: (1) to determine the response to glyphosate in *A. palmeri* biotypes recently found in Turkey by whole-plant dose-response bioassay, (2) to compare shikimate accumulation in the GR and GS biotypes after the glyphosate application………………

The results from the whole-plant dose-response experiments defined that the GR biotypes had incipient resistance levels to glyphosate (RF = 3–4) and that the potentially GS populations can effectively be used as susceptible standards. The incipient resistance was supported by increasing EPSPS gene copy number in the more tolerant glyphosate *A. palmeri* biotype……………………