

KNISS, ANDREW R.^{1*} and DENNIS C. ODERO², ¹University of Wyoming, 1000 E. University Ave., Laramie, WY 82071 and ²University of Florida EREC, 3200 E. Palm Beach Road, Belle Glade, FL 33430. **Preemergence ethofumesate increases postemergence spray retention on common lambsquarters.**

Greenhouse experiments were conducted to determine whether sublethal rates of ethofumesate applied preemergence (PRE) increased postemergence (POST) spray retention on common lambsquarters. Ethofumesate was applied PRE at rates from 0 to 224 g/ha, followed by POST treatment with either water or glyphosate (at 840 g ae/ha) to which a red dye had been added. Plants were immediately washed and spray retention determined spectrophotometrically. POST spray retention was influenced by the interaction of PRE ethofumesate rate and POST spray material. Common lambsquarters retained more glyphosate compared to water, regardless of PRE ethofumesate rate. Increasing the rate of PRE ethofumesate increased the POST spray retention of both water and glyphosate. PRE application of ethofumesate increased POST spray retention of water by 114% and glyphosate by 18% compared to no ethofumesate treatment as determined by non-linear regression. Ethofumesate rates of less than 90 g/ha increased POST spray retention to 95% of the total observed response.