RECALCITRANT WEEDS IN OHIO VINEYARDS. Linjian Jiang, Tim Kock, Imed Dami, and Douglas J. Doohan, Graduate Student, Research Assistant, Assistant Professor and Associate professor, Department of Horticulture and Crop Science, The Ohio State University-Ohio Agriculture Research and Development Center, Wooster, OH 44691.

A survey was conducted to document the weeds that persisted in vineyards after weed control practices were complete. A particular interest was detection of weeds potential resistant to glyphosate. The survey was conducted throughout the state of Ohio by visiting 31 vineyards in 2004. Each grower provided us with an area ranging from 0.33 to several acres that they felt was representative of the general weed problems in the vineyards. Weed species and numbers were counted in 20 random drops of a 25×25 cm quadrat. Herbicide spraying history, grape varieties, vineyard locations, and grapevine age were collected by interviewing the growers and visiting the vineyards. Data were analyzed by SAS 9.1 using GLM model, and means were compared according to Student-Newman-Keuls (SNK) at the 0.05 level. Crabgrass, dandelion, pigweed, foxtail, fall panicum, clover, chickweed, common ragweed, smartweed, and oxalis were the most prevalent weeds in Ohio vineyards with relative abundance values of 44.2, 25.4, 17.7, 17.1, 14.3, 11.6, 11.3, 10.6, 10.3, and 9.3, respectively. When glyphosate was the sole means of weed control poor weed of crabgrass, dandelion, and oxalis was observed, relative to control with other herbicide management programs. These data suggest that glyphosate resistance may be a potential problem in these weeds. The survey also showed that weed problems were more severe in *Vinifera* vineyards than in Concord and French hybrid vineyards. *Vinifera* vineyards require hilling of soil around the base of the vines in autumn to protect the graft union from winter injury and mechanical removal of the soil hill in spring.