

Controlling Difficult Weeds in Right-Aways and Non Cropland

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The unchecked growth of weeds in ditchbanks, fencerows roadsides, and other non-cropland areas can cause several problems for landowners. Poor weed management practices may increase weed seed reservoirs and the potential for weed problems if the land is ever brought into crop production, provide for a source of new weed problems in adjoining fields through seed dispersed by wind, animals or perennials creeping in from field edges, and lower economic land values. Glyphosate resistance of horseweed (*Conyza canadensis*) and hairy fleabane (*Conyza bonariensis*) populations have increased dramatically throughout California orchards, vineyards, and roadsides. This shift has occurred due to the usage of repeated applications of glyphosate, reduced tillage, less usage of residual herbicides, and less use of alternative chemistry.

Glyphosate resistant horseweed, fleabane and other species have shown up throughout the United States particularly in the cotton regions of the United States. From 2006-2009 ditchbank and roadside studies conducted in Tulare County demonstrated good control of horseweed when using Milestone, Transline at 10.6 oz., Krovar + Accord, Karmex + Accord, and Oust + Accord gave up to 100 percent control of horseweed. The higher rates of Milestone at 7 oz. /A was needed to give the most consistent control. Treatment combinations of Glyphosate at 2 lbs. ai. + Indicate, Citric Acid, ET, Shark, or Chateau gave improved control compared to Glyphosate + AMS. In all treatments glyphosate was an important addition for control of grasses that were present.

Sprangletop (*Leptochloa fascicularis*) is increasing rapidly in many ditch banks in the San Joaquin Valley. Research studies in 2009 in Kings County demonstrated that two applications of glyphosate at 44 oz. per acre plus glufosinate at 7 pints per acre gave outstanding control of sprangletop.

Conclusions

In summary, the non-crop weed management approach must incorporate resistance management strategies such as using minimum number of applications of any one herbicide per season. Also rotating herbicides and using tank mixes with different chemistry. Other strategies the non-crop weed management must include are controlling weed escapes by tillage, or hand when appropriate, and monitoring and mapping locations for patterns of weed escapes consistent with developing resistance.