

Weed Control in Strawberries: Grower's Perspective

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Difficult to control weed species. Weed species that are most difficult to control are: yellow nutsedge, clovers (primarily sweet clover) and little mallow. Occasionally, fleabane or horseweed (*Conyza* spp.) is a problem because the seed of these species may blow into the field and are not controlled by Goaltender (oxyfluorfen) herbicide. It is important to control these wind-spreading weed species at neighboring areas and use Roundup herbicide on plant in rosette stage before they transition to flowering.

Yellow nutsedge is the most expensive weed to control due its perennial nature and lack of chemical control options, and therefore considerable labor costs. Yellow nutsedge persists in non-fumigated field edges, spreads with equipment within the field and to other fields, and is not controlled by drip fumigation with InLine (1, 3D +Chloropicrin) or Goaltender. Black or dark plastic mulches normally prevent weed growth in strawberry beds (and are best control option for clovers); however, nutsedge grows through plastic regardless of color and thickness. Oxyfluorfen provides adequate control of little mallow.

Fumigation. Fumigation with methyl bromide followed by chloropicrin provided best weed control. Chloropicrin is also applied after InLine with a primary purpose of controlling soil-borne pathogens, but also germinating weed seed. InLine is a preferred alternative fumigation material, however, we use methyl bromide every third year to 'clean-up' weed and other pest problems that may have accumulated in the fields fumigated by InLine. Additionally, pre-irrigation 8 to 10 days prior to fumigation is very affective in enhancing weed control during fumigation. We observed greater weed germination and thus, greater kill during fumigation.

Weed control in furrow. Furrows are not fumigated when drip-fumigation is used and are very weedy, especially with water from sprinkler irrigation during plant establishment runs down to furrows. Devrinol herbicide provides only partial weed control in furrows; GoalTender is effective in controlling weeds in furrows but if applied post-transplant can lift-off/co-distil and injure establishing transplants. Additionally, GoalTender loses effectiveness due to disturbance in furrows (which also enhances weed germination).

Water as weed transport. Surface water that is supplied by United Water contains weed seed. It is unfiltered and is differentiated by higher pH. When applied through sprinkler irrigation the filters, initially small weed seed are spread out with irrigation, and later the filters get plugged up and pressure builds unevenly in irrigation system.