No effective herbicides for nutsedge control in strawberry?

Oleg Daugovish, Anna Howell, UCCE-Ventura and Steve Fennimore, UC-Davis, Salinas
S-metolachlor (Dual Magnum)

- Acetamide herbicide: Root and shoot growth inhibition of germinating weeds
- Good nutsedge efficacy and safety in vegetable crops
- Added to IR-4 (minor crop) list in 2008 for strawberry:
  need data on nutsedge control in strawberry and crop safety
2009
Nutsedge tubers placed in pots into beds
• DM 0.95 lb a. i. /acre on June 9
• Applied to beds and covered by mulch
• Strawberry transplanted 30 d later
Purple nutsedge

Untreated control

DM 0.95lb a. i./acre
Purple nutsedge counts

No significant injury to strawberry
Yellow nutsedge counts

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<th>Yellow nutsedge counts</th>
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- **28-Jul**
- **Aug. 13**
- **Aug. 20**

**Injury** was not determined: poor quality transplants

**Dual Magnum, 0.95**

**Untreated**
March 19, 2010: yellow nutsedge re-emergence in untreated DM 0.95 vs Untreated
EFFECT ON STARWBBERY?

Plant mortality number, Nov. 9: no signif. differences

# of dead out of 16 plants per plot

DM 0.95

Untreated
Plant injury 1 (none) – 10 (dead), Nov. 9: no signif. differences

DM 0.95

Untreated
Plant size, Dec. 10:

- DM 0.95
- Untreated

The diagram shows the canopy area in cm² for DM 0.95 and Untreated conditions. The Untreated condition has a significantly higher canopy area compared to DM 0.95.
Fruit yield (fresh market, Feb. –April 2010): $P = 0.05$

- Untreated: 13% less
2010-2011
Nov 22, 2010:

DM 0.63  DM 0.95  Untreated
Plant Canopy Area,
Nov 22, 2010

cm²

Untreated
DM 0.63
DM 0.95

a
ab
b
Is there an effect of DM on this plant?
Injury (1=none to 10 =dead)

Mortality: identical in all treatments ~1.5%
Marketable fruit yield, 2011

Unmarketable yield: similar trend

30% less
Dual Magnum

- Rates 0.63 and < likely safe on strawberry
- Effective for moderate nutseed density

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