Alternative Cultivators for Vegetable Production

Richard Smith, Farm Advisor
University of California Cooperative Extension
Monterey County
Typically 80+% of a 40-inch wide bed can be effectively cultivated. The fight with weeds occurs in the uncultivated seedline.
Removal of Weeds from the Seedline

• High Tech Ideas
Removal of Weeds from the Seedline

• Lower Tech Ideas
Lower Tech Ideas for Removing Weeds from the Seedline

• In Europe where transplanting of vegetables is commonly used, there is wider use of implements that are capable of removing weeds from the seedline

• We tested two of these implements:
  – Finger Weeder
  – Torsion Weeder
Finger Weeder Background

• This idea originally came from the US – was invented by the Buddingh Company, Michigan

• The idea was taken to Europe and further developed and refined (now produced by three companies)

• The Europeans claim their designs can operate at higher speed
Finger Weeders
Two sizes and two levels of hardness

Kress Co, Germany

14.5”  9.5”

Softer  Harder
Adjustment of the units is critical for crop safety
2008 On-Farm Trials
Standard Cultivation

Finger Weeder
2008 Leek Cultivation Trial
Standard 9.5 Standard 9.5"
9.5’’ yellow yellow
Transplanted Leek Trial
Percent Removal of Weeds
Nettle, Pig Weed and Malva Dominant Weeds

- Standard: 30%
- 14.5 orange: 70%
- 14.5 yellow: 60%
- 9.5 orange: 50%
- 9.5 yellow: 90%
- Torsion 9mm: 20%
- Torsion 7mm: 50%
Transplanted Leek Trial
Weeding Time hrs/A

- Standard
- 14.5 orange
- 14.5 yellow
- 9.5 orange
- 9.5 yellow
- Torsion 9mm
- Torsion 7mm