Center for Agroecology

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UC SANTA CRUZ







As farmers, our goal is to constantly foster a growing environment that discourages weed growth and success. <u>Weeding the crop should be a last</u> resort.

Goals

 Germinate and kill as many weed seeds as possible, as many times as possible

 Encourage conditions where weeds are at a competitive disadvantage

Prevent weeds going to seed

Weed Seed Bank Strategies

• Cover crops

Pre-plant weed flush

• Finishing a crop



Good cover crop management is critical for good weed control.













cultivation





Rolling Cultivator

Bed worked with Rolling Cultivator

weeds inverted
crust broken
moisture retained

crust



Perfecta "three-in-one" cultivator

Crop cultivation

- Irrigation
- Cultivation
- Follow up

Irrigation

• Pre-irrigation

- Establish soil moisture for crop health and timing of subsequent watering
- Watering at establishment
 - \circ ~2" over 2 weeks of overhead
 - Crop day 0 = .5"
 - Crop day 1 = .5"
 - Crop day 4 = .5"
 - Crop day 7 = .5"
 - Enough and not too much

- Cultivate crop @ crop day 11
 - Transition to drip
 - Subsequent irrigations at 2 times/week
 - Enough and not too much





Crop cultivation: basic

• Cultivate at crop day 11-12

○ Weeds in thread stage or pre-emergent

Mechanically cultivate furrows and bed tops

- \bigcirc Hoe bed tops if necessary
- Hand hoe in row
- Space your plantings for canopy closure



Timing in terms of size is critical



















Follow up & finishing a crop

Hand weeding as necessary

○ Rogue large weeds; ~30-45 mins/acre

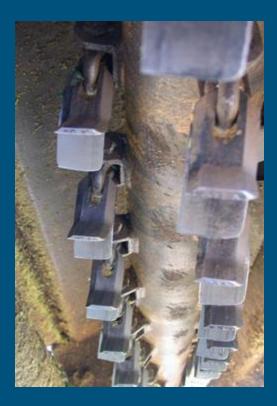
Stop weed growth/setting seeds

- Mow ASAP
- Bed recycler/tandem disc
- \bigcirc Undercutter bar

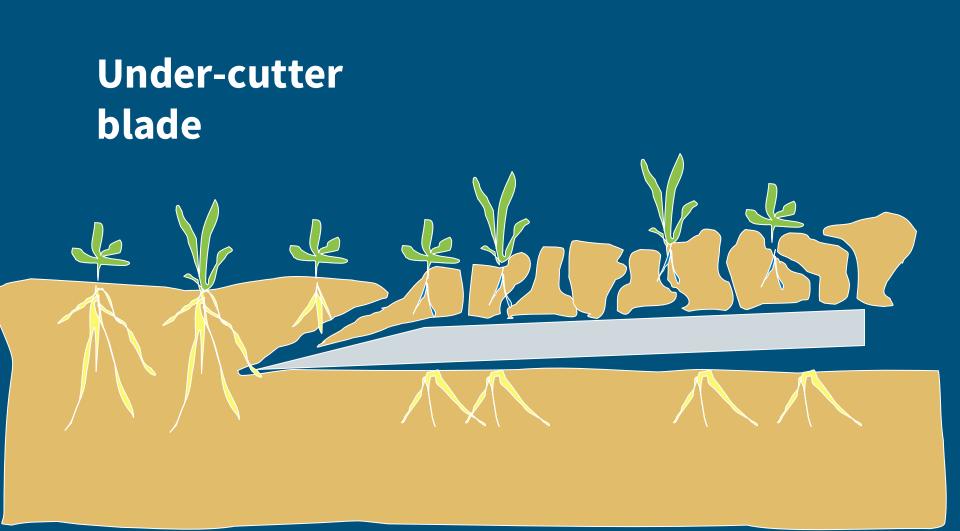




Flail mower







Crop cultivation

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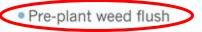
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Weed Seed Bank Strategies

Cover crops



Finishing a crop

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Farmall Cub



Kubota 245





Allis Chalmers "G" with basket weeders

Allis Chalmers "G" electric conversion





Finger weeder



Tine Weeder



Flame weeding







