



Cover Crop #340

FARM WATER QUALITY PLANNING MANAGEMENT PRACTICE

*University of California Cooperative Extension
Natural Resources Conservation Service*



Cover Crops are grown in orchards, vineyards or where seasonal benefits of a cover crop in an annual crop rotation are needed. They are used to control erosion, add organic matter and nutrients to the soil, improve soil tilth and increase infiltration and aeration of the soil. Cover crops have a filtering effect on movement of sediment, pathogens, and dissolved and sediment-attached pollutants.

Advantages

- Perennial cover reduces cultural operation costs
- Perennial cover reduces tillage
- Reduce herbicide applications
- May reduce some insect infestations
- Easy to install and maintain
- Reduces soil compaction
- Minimizes root damage from cultivation
- Reduce water runoff
- Can reduce size and cost of additional practices such as a sediment basin
- Reduces downstream sediments

Disadvantages

- May lower minimum temperatures (increase risk of crop damage)
- Could harbor unwanted pests
- May require mowing
- May compete with crops for water

Practice Costs

Costs for this annual practice, including installation, operation and maintenance, ranged from \$48 - \$163 per acre in Central Coast production areas. Reduced costs in labor and equipment use for prevention and repairs ranged from \$0 to \$110 per acre. Costs for perennial cover crops or reseeding cover crops will vary

Additional information on estimated costs and potential benefits of an annually planted cover crop may be found at

<http://www.agecon.ucdavis.edu> under the “Outreach” page

Practice Effectiveness for Reducing Water Quality NPS Pollution Potential^a

Erosion-sheet & rill	Erosion-streambank	Pesticides-leaching	Pesticides-dissolved in runoff	Pesticides-adsorbed to sediment	Nutrients-leaching	Nutrients-surface waters
moderate to significant	N/A	slight to moderate	slight to moderate	moderate	slight ^b	slight to moderate ^b

^a From: Conservation Practice Physical Effects, USDA Natural Resources Inventory and Analysis Institute, adapted for local conditions where applicable

^b Based on professional judgment by local NRCS agronomist

N/A – Indicates no expectation of reducing pollution potential for this pollutant

Additional sources of information regarding cover crops:

- Information in this management sheet has been taken from the Natural Resource Conservation Service (NRCS) Handbook of Conservation Practices for Practice #340. Contact your local NRCS office or visit <http://www.nrcs.usda.gov> for more information
- Your local NRCS, UC Cooperative Extension, and Resource Conservation District offices
- UC Sustainable Agriculture Research and Extension Program Cover Crop data base at <http://www.sarep.ucdavis.edu>.
- UC Weed Research and Information Center <http://wric.ucdavis.edu>
- UC Conservation Practice Studies <http://www.agecon.ucdavis.edu> under the “Outreach” page

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Picture provided by Peter Christensen, UC Cooperative Extension Viticulturist

We wish to thank local Natural Resources Conservation staff and Coordinators and participating growers from the Coalition of Central Coast County Farm Bureaus for their help in development and review.

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