

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Delta States
State	Louisiana
Discipline Group	Agronomy
Practice Code/Name	340 - Cover Crop
Scenario ID	4
Scenario Name	Orchard/Vineyard Annual Cover Crop
Scenario Description	Orchard or Vineyard annual cover crop is planted which is destroyed by field operations occurring spring through fall. Cover crops are used to reduce erosion from wind and water, increase soil organic matter content, capture and recycle or redistribute nutrients in the soil profile, promote biological nitrogen fixation and reduce energy use, increase biodiversity, suppress weeds, manage soil moisture, and minimize and reduce soil compaction. Planted annually in orchards and vineyards. 60% cover crop per acre.
Before Practice Situation	Orchards or vineyards with bare soil between vine/tree rows. Bare soil is exposed to wind erosion and/or intense rainfall during the fall, winter, and early spring. Over the winter sediment/nutrient runoff from orchards/vineyards increases. Sheet and rill erosion occurs with visible rills by spring. Runoff from the fields flows into streams, water courses or other water bodies causing degradation to the receiving waters. Soil health (soil organic matter) declines over time as a result of long periods of bare soil.
After Practice Situation	Typically, within 30 days after harvest of row crop, fields are planted with a small grain-legume mix cover crop, typically rye and clover. The average field size is 40 acres. Typically, the cover crop is seeded with a no-till drill. No additional fertilizer is applied with the cover crop. The cover crop provides soil cover by late fall, throughout the winter, and into the early spring. Runoff and erosion are reduced and no rills are visible on the soil surface in the spring. Wind erosion is reduced by standing residues. The cover crop is terminated with an approved herbicide prior to spring planting as late as feasible to maximize plant biomass production. Over time, soil health is improved due to the additional biomass, ground cover, soil infiltration, and plant diversity introduced to the cropping system. Cover crop residues left on the surface may maximize weed control by increasing allelopathic and mulching effect.
Scenario Feature Measure	Area planted
Scenario Unit	Acre
Scenario Typical Size	10

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$1,134.00	\$113.40
Equipment/Installation	\$129.00	\$12.90
Labor	\$0.00	\$0.00
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$1,263.00	\$126.30

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	185	Crimson Clover (Trifolium incarnatum)	Legumes, Cover Crops and shipping.	Pound	\$2.25	312	\$702.00
Materials	198	Rye, Cereal (Secale cereale L.)	Small Grains, Cover Crops. Shipping not included.	Pound	\$0.30	1440	\$432.00
Equipment/Installation	960	Seeding Operation, No Till/Grass Drill	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	\$12.90	10	\$129.00