

ECONOMIC COST DATA

Critical Area Planting (342)

OKLAHOMA

Cost Data

<u>Typical Implementation Scenario</u>		
342.1 Critical Area Planting		
Establishing permanent vegetation on areas with excessive erosion and previously constructed structural practices (ponds, waterways, grade stabilization structures, diversions, etc.)		
Data Source: 2006-2007 actual cost data		
Geographic Area:	Statewide	
Unit for Cost Estimate:	Acre	
Practice Life (Years):	10	
Discount Rate (%/Year):	5%	
		<u>Cost/Unit</u>
<u>Materials</u>		\$80.00
Includes the cost of the seed/sprigs and any needed seedbed preparation prior to planting. This component is for planting completed under the critical area planting (342) specifications only.		
Does not include cost of fertilizer for establishment.		
<u>Equipment/Installation</u>		\$20.00
Tractor / Drill / Sprigger / Spreader (typically range from \$15 - \$25 per acre)		
Includes labor		
<u>Labor</u>		
Costs included with installation		
<u>Mobilization</u>		\$25.00
Due to size of jobs (typically small), some cost may be incurred.		
<u>Operation & Maintenance</u>		\$3.75
3% of installation cost		
<u>Acquisition of Technical Knowledge</u>		\$0.00
N/A		
<u>Forgone Income</u>		\$0.00
None		
<u>Risk</u>		\$0.00
Reduced risk, less concentrated flow erosion.		
<u>Administration & Permit Costs</u>		\$0.00
None		
Total Cost Estimate:		\$128.75

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<u>Typical Implementation Scenario</u>		
342.2 Tree/Shrub Establishment		
Establishing permanent vegetation on areas with excessive erosion.		
Data Source: 2006-2007 actual cost data		
Geographic Area:	Statewide	
Unit for Cost Estimate:	Acre	
Practice Life (Years):	10	
Discount Rate (%/Year):	5%	
		Cost/Unit
Materials		\$330.00
Includes the cost of the trees and/or shrubs (barerooted). This component is for planting completed under the critical area planting (342) specifications only and is based on average spacing requirements (681 - 1210 trees per acre) and costs of 35 cents per tree.		
Does not include cost of fertilizer for establishment.		
Equipment/Installation		\$0.00
Included with labor costs		
Labor		\$472.75
Includes the cost labor and any equipment needed to install trees / shrubs and is based on an average rate of 50 cents per tree. Also includes any costs associated with site preparation prior to planting.		
Mobilization		\$25.00
Due to size of jobs (typically small), some cost may be incurred.		
Operation & Maintenance		\$14.18
3% of installation costs		
Acquisition of Technical Knowledge		\$0.00
Planting and maintenance of trees.		
Forgone Income		\$0.00
None		
Risk		\$0.00
Reduced risk, less concentrated flow erosion.		
Administration & Permit Costs		\$0.00
None		
Total Cost Estimate:		\$841.93

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<u>Typical Implementation Scenario</u>		
342.3 Shaping and Filling Gullies		
Mechanically shaping and/or filling gullies (according to a gully shaping design) where natural recovery is not possible and vegetating afterwards.		
Data Source: 2006-2007 actual cost data		
Geographic Area:	Statewide	
Unit for Cost Estimate:	Acre	
Practice Life (Years):	10	
Discount Rate (%/Year):	5%	Cost/Unit
<u>Materials</u>		\$100.00
Includes the cost of the seed/sprigs, planting operation and any needed seedbed preparation prior to planting following the Does not include cost of fertilizer for establishment.		
<u>Equipment/Installation</u>		\$640.00
Dozer or other heavy equipment used to shape and/or fill gullies. Costs include removal and replacement of topsoil, removal of any trees or other rubbish that interferes with shaping and filling and the shaping of gully side slopes and bottom according to design.		
Includes labor		
<u>Labor</u>		
Costs included with installation		
<u>Mobilization</u>		
None		
<u>Operation & Maintenance</u>		\$19.20
3% of installation costs		
<u>Acquisition of Technical Knowledge</u>		\$0.00
N/A		
<u>Forgone Income</u>		\$0.00
None		
<u>Risk</u>		\$0.00
Reduced risk, less concentrated flow erosion.		
<u>Administration & Permit Costs</u>		\$0.00
None		
Total Cost Estimate:		\$759.20

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<u>Typical Implementation Scenario</u>		
342.4 Seedbed Preparation, placement, sod mulching		
Establishing bermudagrass on areas with excessive erosion and/or previously constructed structural practices (ponds, waterways, grade stabilization structures, diversions, gully shaping, etc.) by placing sod mulch (mixture of bermudagrass and topsoil). This is primarily used in situations where the extra topsoil may be needed to ensure establishment or concentrated flows are a concern. Sod mulch is dug, loaded and hauled to the site where it is needed and placed. This does not include situations where existing bermudagrass is stockpiled and then replaced as part of the final construction activity of an engineering structural practice.		
Data Source: 2006-2007 actual cost data		
Geographic Area:	Statewide	
Unit for Cost Estimate:	Acre	
Practice Life (Years):	10	
Discount Rate (%/Year):	5%	
		Cost/Unit
Materials		\$100.00
Materials cost include costs for digging sod, value of sprigs that are mixed with the soil and the topsoil. Assume an average of 40 bushels of sprigs per acre at \$2.50 per bushel including soil.		
Does not include cost of fertilizer for establishment.		
Equipment/Installation		\$100.00
Equipment and labor for preparation and placement of sod mulch according to the critical area planting (342) standard. Assume \$50.00 per hour, 2 hours per acre		
Labor		
Costs included with installation		
Mobilization		\$25.00
Due to size of jobs (typically small), some additional cost may be incurred.		
Operation & Maintenance		\$3.75
3% of installation costs		
Acquisition of Technical Knowledge		\$0.00
N/A		
Forgone Income		\$0.00
None		
Risk		\$0.00
Reduced risk, less concentrated flow erosion.		
Administration & Permit Costs		\$0.00
None		
Total Cost Estimate:		\$228.75