1999 TENNESSEE STATE AVERAGE COST LIST
Unit cost Reflects 100 Percent of Allowable Cost

ESTABLISHMENT OF VEGETATIVE COVER:

Component Description	Unit	Rate
Annual Ryegrass	lb	$0.47
Barley	bu	$9.20
Bermudagrass (Seed)	lb	$2.50
Bermudagrass (Sprigs)	cu ft	$2.20
Bicolor/Shrub Lespedeaz (seed)VA70, BC101 varieties	lb	$7.30
Bicolor/Shrub lespedeza (seed) Amquail	lb	$16.00
Bluegrass	lb	$1.50
Bluestem, Big	lb	$20.00
Bluestem, Little	lb	$14.00
Boron (alfalfa only)	lb	$2.50
Browntop Millet	lb	$0.75
'uckwheat	lb	$0.54
Certified Alfalfa	lb	$2.90
Crimson Clover	lb	$1.50
Crown Vetch	lb	$16.75
Eastern Gamagrass	lb	$9.50
Foxtail Millet	lb	$0.35
Hairy Vetch	lb	$1.62
Indiangrass	lb	$20.00
Illinois Bundleflower	lb	$35.00
Japanese Millet	lb	$0.69
Kobe Lespedeza	lb	$1.04
Korean Lespedeza	lb	$0.85
KY 31 Fescue	lb	$0.70
Lime	ton	$16.00
Maximilian Sunflower	lb	$35.00
ulch	ac	$224.00

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Component Description	Unit	Rate
Nitrogen	lb	$0.26
Orchardgrass	lb	$1.05
Partridge Pea	lb	$15.00
Pearl Millet	lb	$0.62
Phosphorous	lb	$0.23
Potassium	lb	$0.14
Redtop	lb	$4.38
Reed Canarygrass	lb	$4.35
Rye	bu	$10.65
Seeding (Conventional) includes seedbed preparation and seeding costs	ac	$30.00
Seeding (No-Till)	ac	$19.00
Sideoats Grama	lb	$13.00
Sericea (Scarified)	lb	$3.96
Sorghum-Sudan Hybrid (sudex)	lb	$0.45
Sudan Hybrids	lb	$0.51
Sudangrass	lb	$0.44
Subsoiling (for tree planting)	ac	$20.00
Switchgrass	lb	$15.00
Tall Fescue (Fungus Free)	lb	$0.98
Timothy	lb	$0.82
Weeping Lovegrass	lb	$6.75
Wheat (Non-Certified)	bu	$8.52
White Clover (Ladino, Regal, White Dutch)	lb	$2.30
Red Clover	lb	$2.15
Quail Haven Soybean	lb	$6.00

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SITE PREPARATION

Chemical Weed Control

Johnsongrass (Fall Treatment) (Rhizomes) includes disking or shredding	ac	$58.00
Spring Treatment (Seeding)	ac	$33.00
Other Weeds	ac	$60.00
Mechanical Weed Control: Includes disking, shredding or mowing	ac	$11.00

TREE/SHRUB ESTABLISHMENT (Does NOT Include Site Preparation)

Loblolly Pine	ea	$0.14
Shortleaf Pine	ea	$0.16
White Pine	ea	$0.23
Virginia Pine	ea	$0.16
Large Seeded Oak Acorns	ea	$0.07
Small Seeded Oak Acorns	ea	$0.03
Oak Seedlings	ea	$0.50
Black Walnut	ea	$0.50
Green ash	ea	$0.50
White Ash	ea	$0.50
Yellow Poplar	ea	$0.51
Sweetgum	ea	$0.47
Blackgum	ea	$0.43
Sycamore	ea	$0.47
Baldcypress	ea	$0.40
Silky Dogwood	ea	$2.00
Gray Dogwood	ea	$2.00
Flowering Dogwood	ea	$0.49
Flowering Crabapple	ea	$0.41
Chinese Chestnut	ea	$0.60
Indigobush	ea	$0.41

1999 TENNESSEE STATE AVERAGE COST LIST Unit Cost Reflects 100 Percent of Allowable Cost		
Bicolor Lespedeza (Shrub Seedling)	ea	$0.43
Paulownia	ea	$0.51
Persimmon	ea	$0.66
Hickory	ea	$0.50
Pecan	ea	$0.50
Red Maple	ea	$0.56
Eastern Cottonwood	ea	$0.56
Mapleleaf Viburnum	ea	$0.44
Black Cherry	ea	$0.42
Spicebush	ea	$0.50
Washington Hawthorne	ea	$0.40
Chickasaw Plum	ea	$0.85
Wild Plum	ea	$0.40
FIP Site Preparation, FP1 Site Preparation - All Other Forestry Programs	ac ac	$100.00 $20.00
FIP Site Preparation for Natural Regeneration, FP3	ac	$80.00
FIP Improving a Stand of Forest Trees for Practice FP2 Non- Commercial Thin Release of Seedlings	ac ac	$65.00 $110.00

STRUCTURAL COMPONENTS:

Material (Installed): INCLUDES LABOR, DELIVERY, ETC.

CONCRETE:

No Reinforcement/Mesh or Welded Wire Fabric	cu yd	$90.00
Slab with Reinforcement (Rebar)	cu yd	$130.00
Walls with Reinforcement (including Circular Silos)	cu yd	$320.00
Other Reinforced in Place (Curbing)	cu yd	$180.00

EARTHMOVING:

Dozer (<130 hp) ; quantities determined beyond 40 hours	hr	$50.00
Dozer (130-140 hp); quantities determined beyond 40 hours	hr	$70.00
Dozer (141-165 hp); quantities determined beyond 40 hours	hr	$75.00
Dozer (166-200 hp); quantities determined beyond 40 hours	hr	$85.00
Dozer (>200 hp); quantities determined beyond 40 hours	hr	$100.00
Rubber Tired Backhoe (70-90 hp); quanitites determined beyond 40 hours	hr	$35.00
Trackhoe (115 hp); quantities determined beyond 40 hours	hr	$75.00

1999 TENNESSEE STATE AVERAGE COST LIST
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DIVERSION	ft	$2.67
POND	ea	$1,000.00
EXCAVATION:		
Earth	cu yd	$1.80
Rock	cu yd	$10.00
Shale Rock	cu yd	$4.00
EARTHFILL:		
Compacted	cu yd	$2.00
Compacted with Sheepsfoot	cu yd	$4.00
Hauled and Compacted	cu yd	$8.00
Hauled and Compacted with Sheepsfoot	cu yd	$10.00
FENCING (PERMANENT) Includes Posts, ALL Fencing Materials		
WASTE MANAGEMENT SYSTEM:		
39" Woven Plus 2 Strands Barbwire	lin ft	$3.00
Chainlink with Vinyl Coating	lin ft	$24.00
Chainlink - 4' high	lin ft	$4.00
Metal Gate (12' min)	ea	$100.00
LIVESTOCK.EXCLUSION.ROTATIONAL GRAZING (Interior Fields and Special Use Areas - Permanent)		
Barbed Wire - 3 Strands Min.	lin ft	$1.00
High Tensile Electric	lin ft	$0.50
GEOTEXTILE	sq yd	$1.25

	GALVANIZED LIVESTOCK PANEL (52" high by 8' wide)	ea	$25.00
	LUMBER		
Lumber: One Board Foot = 12" x 12" x 1" (Nominal Size)			
	Non-Pressure Treated	bd ft	$1.45
	Pressure Treated	bd ft	$1.50
	PIPE (See attachment)		
	Pipes outlined in NRCS plan (Fittings Included in Cost)	SYS	@
	Pipe Appurtenances	ea	@
	PUMPS (Non-Portable)		
	Slurry Manure (>4% solids) w/agitator, cutter blades, and other appurtenances Houle 8' Agi-pompe (24" dia. Mixing propeller, agitation nozzle, 20" dia. Impeller, etc.	ea	$8,000.00
	Houle Electromix System or equal to include mechanical or compressed air, liquid transfer pipe, electric motors, compressors and all appurtenances	ea	$20,000.00
	Electric Transfer Pump 15 hp(w/agitator,chopper and other appurtenances)	ea	$5,000.00
	Electric Transfer Pump 20 hp(w/agitator,chopper and other appurtenances)	ea	$5,500.00
	Electric Transfer Pump 25 hp(w/agitator,chopper and other appurtenances)	ea	$6,000.00
	Liquid Manure w/agitator nozzle, open impeller (3" min. And <4% solids):		
	3 hp	ea	$2,000.00
	5 hp	ea	$3,000.00
	7.5 hp	ea	$3,500.00
	10 hp	ea	$4,000.00

	Water		
	½ hp with appurtenances	ea	$550.00
	1 hp with appurtenances	ea	$675.00
	Air Tank	ea	$240.00

1999 Tennessee State Average Cost List

(unit cost reflect 100% of allowable cost)

Material (installed)	Unit	Unit Cost ($)
Pipe (fittings included in cost)		
PVC (ASTM D-1785 or D-2241 or D-3034)		
<1 inch	lin.ft.	1.00
2 inch	lin.ft.	1.50
3 inch	lin.ft.	2.00
4 inch	lin.ft.	2.15
6 inch	lin.ft.	3.50
8 inch	lin.ft.	5.25
10 inch	lin.ft.	7.30
PVC (ASTM D-2729) or Corrugated high density polyethylene AASHTO M252 or M294, Type S (smooth interior)		
4 inch	lin.ft.	1.30
6 inch	lin.ft.	2.20
8 inch	lin.ft.	3.40
10 inch	lin.ft.	4.00
12 inch	lin.ft.	5.65
15 inch	lin.ft.	7.50
18 inch	lin.ft.	10.50
24 inch	lin.ft.	16.00
30 inch	lin.ft.	24.00
36 inch	lin.ft.	35.00
42 inch	lin.ft.	50.00
48 inch	lin.ft.	55.00
Corrugated high density polyethylene drainage tubing ASTM F405 or F667and AASHTO M252 or M294 pipe		
4 inch	lin.ft.	0.80
5 inch	lin.ft.	1.00
6 inch	lin.ft.	1.40
8 inch	lin.ft.	2.20
10 inch	lin.ft.	3.50
12 inch	lin.ft.	4.20
15 inch	lin.ft.	5.50
Corrugated Steel (galvanized)		
8 inch (16 ga.)	lin.ft.	6.50
10 inch (16 ga.)	lin.ft.	8.50
12 inch (16 ga.)	lin.ft.	9.00
15 inch (16 ga.)	lin.ft.	12.00
18 inch (14 ga.)	lin.ft.	15.00
24 inch (14 ga.)	lin.ft.	18.00
30 inch (14 ga.)	lin.ft.	24.00
36 inch (14 ga.)	lin.ft.	30.00
42 inch (12 ga.)	lin.ft.	40.00
48 inch (12 ga.)	lin.ft.	48.00
Corrugated Aluminum		
6 inch (16 ga.)	lin.ft.	5.70
8 inch (16 ga.)	lin.ft.	8.00
10 inch (16 ga.)	lin.ft.	9.00
12 inch (16 ga.)	lin.ft.	12.00
15 inch (16 ga.)	lin.ft.	16.00

1999 Tennessee State Average Cost List

(unit cost reflect 100% of allowable cost)

Material (installed)			Unit	Unit Cost ($)
Corrugated Aluminum (continued)				
18 inch	(14 ga.)		*lin.ft.*	20.00
24 inch	(14 ga.)		*lin.ft.*	23.00
30 inch	(14 ga.)		*lin.ft.*	30.00
36 inch	(14 ga.)		*lin.ft.*	36.00
42 inch	(12 ga.)		*lin.ft.*	44.00
48 inch	(12 ga.)		*lin.ft.*	50.00
Reinforced Concrete				
24 inch			*lin.ft.*	15.00
30 inch			*lin.ft.*	18.00
36 inch			*lin.ft.*	21.00
42 inch			*lin.ft.*	28.00
Bare Steel (no flanges)				
16 inch dia. standard thickness			*lin.ft.*	30.00
20 inch dia. standard thickness			*lin.ft.*	35.00
24 inch dia. standard thickness			*lin.ft.*	45.00
Pipe Appurtenances				
Steel Slip on flanges (to be welded)				
16 inch			*each*	115.00
20 inch			*each*	195.00
24 inch			*each*	275.00
Shear Gate Valves				
16 inch manual w/ treaded turn handle			*each*	1400.00
16 inch electric w/ motor			*each*	3300.00
20 inch manual w/ treaded turn handle			*each*	2600.00
24 inch manual w/ treaded turn handle			*each*	4200.00
Anti-Vortex Baffle			*each (see below)*	
Pipe Size		***Plastic***	***Aluminum***	***Steel***
12 inch		35.00	50.00	45.00
15 inch		40.00	55.00	50.00
18 inch		45.00	60.00	55.00
24 inch		55.00	70.00	60.00
30 inch		65.00	80.00	70.00
36 inch		75.00	100.00	80.00
42 inch		100.00	115.00	100.00
48 inch		125.00	135.00	115.00
Anti-Seep Collars				
12 inch	48"x48"	60.00	100.00	100.00
15 inch	48"x48"	60.00	100.00	100.00
18 inch	48"x48"	60.00	100.00	100.00
24 inch	60"x60"	100.00	300.00	250.00
30 inch	72"x72"	125.00	350.00	300.00
36 inch	72"x72"	125.00	350.00	300.00
42 inch	84"x84"	150.00	400.00	350.00
Flared Inlets				
12 inch	(16 ga.)	75.00	150.00	70.00
15 inch	(16 ga.)	75.00	175.00	85.00
18 inch	(16 ga.)	100.00	225.00	90.00
24 inch	(16 ga.)	135.00	300.00	140.00

1999 Tennessee State Average Cost List

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Material (installed)		Unit	Unit Cost ($)
Flared Inlets (continued)			
Pipe Size	*Plastic*	*Aluminum*	*Steel*
30 inch (14 ga.)	500.00	600.00	250.00
36 inch (14 ga.)	525.00	825.00	340.00
42 inch (12 ga.)	650.00	1150.00	500.00
48 inch (12 ga.)		1700.00	625.00
Fabrication of riser stub (metal pipe)			
Heliarc weld (per inch of weld)		inch	1.50
Concrete Blocks			
8"x8"x16"		each	1.50

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ROCK:		
Rock Riprap (Erosion Control)	tons	$20.00
Crushed Stone, Maximum 2" size (Heavy Use, etc.)	tons	$20.00
Sand and Gravel Drain Fill	tons	$20.00
ROOFING:		
For Manure Storage or Holding Areas (Includes Trusses, Bracing, Purlins, Metal Roof, and Nails)	sq ft	$3.00
Guttering/Downspouts	ft	$6.00
SEPARATOR, MECHANICAL		
(For Separation of Solid in Animal Waste)	ea	$15,000.00
TANK OR COLLECTION BOX		
Pre-cast Concrete Tank (<1,500 gals)	ea	$1,500.00
Pre-cast Concrete Tank (>1,500 gals)	ea	$2,500.00
Pre-cast Concrete Collection Box with Grate	ea	$600.00
Trough/Tank for Livestock Water	ea	$400.00
Mirafount Trough (20 gal.)	ea	$500.00
Mirafount Trough (44 gal.)	ea	$600.00
Mirafount Trough (70 gal.)	ea	$750.00
TERRACE (Gradient)	lin. Ft.	$1.33
TRACTOR SAFETY DEVICE	ea	$500.00
WELL DECOMMISSIONING	ea	$667.00