Practice: 660 - Tree Pruning

Scenario: #1 - Pruning-Fire Hazard

Scenario Description:

Pruning trees of branches in a forest stand where wildfires are considered a high and very high hazard. Hand tools and power tools are used to cut branches from trees. Resource concerns include Degraded plant condition-wildfire hazard and Undesirable plant productivity and health.

Before Situation:

The forest stand is well to over-stocked, generally with 200 to 300+ trees per acre. Branches are touching understory vegetation or are in close proximity to forest floor where a ground fire can ignite the lower branches and move into the upper canopy. Wildfire hazard is very high.

After Situation:

The typical forest pruning treatment is 20 acres. Trees are pruned to the desirable height (generally 8-10') based on desired separation space between ground vegetation and tree crown. Pruned branches are treated if they are a hazard, see Woody Residue Treatment standard.

Scenario Feature Measure: area of treatment

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $4,743.96 **Scenario Cost/Unit:** $237.20

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Pruning tools, hand tools	1318	Pruning tools, hand tools, shears, loppers, pole saw, handsaw. Material costs only. Labor not included.	Hour	$1.09	20	$21.80
Chainsaw	937	Equipment and power unit costs. Labor not included.	Hour	$6.23	120	$747.60
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	$24.74	140	$3,463.60
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	$42.58	12	$510.96

Practice: 660 - Tree Pruning

Scenario: #2 - Pruning-Low Height

Scenario Description:

Pruning is done by hand with chain saws, tree loppers, hand shears, or hand saws. Trees are identified for pruning. To improve the quality of the stem wood, branches are pruned from the trees. Trees are growing at a fast pace, with leader growth on trees anywhere from 1.5 feet to 4 feet in length.

Before Situation:

Trees are retaining lower limbs along the entire tree bole, reducing wood quality. Pruning height will be based on overall stand diameter and height. Stand has been thinned and crop trees are identified for pruning. Degrade plant condition- undesirable plant productivity and health is the resource concern.

After Situation:

The typical forest pruning treatment is 20 acres. Trees are pruned to the desirable height of 8-10 feet. Pruned branches are treated if they are a hazard, see Woody Residue Treatment standard.

Scenario Feature Measure: area of treatment

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $3,756.70 **Scenario Cost/Unit:** $187.84

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Pruning tools, hand tools	1318	Pruning tools, hand tools, shears, loppers, pole saw, handsaw. Material costs only. Labor not included.	Hour	$1.09	20	$21.80
Chainsaw	937	Equipment and power unit costs. Labor not included.	Hour	$6.23	80	$498.40
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	$24.74	100	$2,474.00
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	$42.58	15	$638.70
Materials						
Tree Marking Paint	313	Trees to be cut through tree marking are physically identified through the application of paint on the tree. Typically one quart of paint is used to mark one acre of trees. Includes materials and shipping only.	Acre	$6.19	20	$123.80

Practice: 660 - Tree Pruning

Scenario: #3 - Pruning- High Height

Scenario Description:

Pruning is done by hand with pole saws or with gas pole saw. Crop trees are identified for pruning. The forest is on highly productive soils. Trees are growing at a fast pace, with leader growth on trees anywhere from 1.5 feet to 4 feet in length. To improve the quality of the stem wood, branches are pruned from the trees.

Before Situation:

Trees are retaining limbs mostly along the mid to upper section of the tree bole, reducing quality. Lower branches (0-8 feet) may have already been pruned, have naturally self pruned to differing heights. Pruning height is at least to eighteen (18) feet above the ground. Degrade plant condition- undesirable plant productivity and health is the resource concern.

After Situation:

The typical forest pruning treatment is 20 acres. Trees are pruned to the height of 18 feet or more. Pruned branches are treated so they do not become a fire or health hazard.

Scenario Feature Measure: area of treatment

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $5,634.50 **Scenario Cost/Unit:** $281.73

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Pruning tool, pole saw	1319	Gasoline powered pole chainsaw. Labor not included.	Hour	$7.76	80	$620.80
Chainsaw	937	Equipment and power unit costs. Labor not included.	Hour	$6.23	40	$249.20
Pruning tools, hand tools	1318	Pruning tools, hand tools, shears, loppers, pole saw, handsaw. Material costs only. Labor not included.	Hour	$1.09	40	$43.60
Labor						
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	$42.58	15	$638.70
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	$24.74	160	$3,958.40
Materials						
Tree Marking Paint	313	Trees to be cut through tree marking are physically identified through the application of paint on the tree. Typically one quart of paint is used to mark one acre of trees. Includes materials and shipping only.	Acre	$6.19	20	$123.80

Practice: 660 - Tree Pruning

Scenario: #4 - Pruning-Wildlife

Scenario Description:

Pruning of hard/soft mast trees and shrubs to stimulate increased fruit/nut production for wildlife food. Primarily done around old agricultural fields, in old orchards, in forested areas. Is usually done with a chainsaw or handsaw to open the canopy and remove dead branches to increase airflow and sunlight penetration. Resource concerns are inadequate habitat for fish and wildlife - habitat degrdation and plant condition- undesirable plant productivity and health

Before Situation:

Trees have reduced mast production due to tree reaching maturity or heavy shade. Pruning is needed to remove older branches, dead material and increase sunlight into the canopy. New branching will be stimulated, increasing mast production.

After Situation:

Selected trees (10 per acre) are re-invigorated with new branching and an increase in mast production.

Scenario Feature Measure: area of treatment

Scenario Unit: Acre

Scenario Typical Size: 2

Scenario Cost: $564.16 **Scenario Cost/Unit:** $282.08

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Pruning tool, pole saw	1319	Gasoline powered pole chainsaw. Labor not included.	Hour	$7.76	6	$46.56
Chainsaw	937	Equipment and power unit costs. Labor not included.	Hour	$6.23	5	$31.15
Pruning tools, hand tools	1318	Pruning tools, hand tools, shears, loppers, pole saw, handsaw. Material costs only. Labor not included.	Hour	$1.09	5	$5.45
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	$24.74	16	$395.84
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	$42.58	2	$85.16

Practice: 660 - Tree Pruning

Scenario: #5 - Pruning-Multistory Cropping Understory

Scenario Description:

Pruning trees and/or shrubs is accomplished to extend the life span of trees and or shrubs. Pruning reduces the time periods of replacement by 2/3rds, exposing less bare soil. Pruning is accomplished by hand with hand tools and/or chainsaw. Trees and or shrubs are growing where the average rainfall is very high, with cooler temperatures and deep steep soils. Resouce concerns are degraded plant condition-undesireable plant productivity and health, soil erosion-sheet and rill.

Before Situation:

Trees and/or shrubs are showing signs of reduced health (thinning crowns/less branching) and fruit production. Loss of trees or shrubs will occur within a few years. Severe soil erosion and sedimentation is a great concern if trees or shrubs are removed.

After Situation:

Tree/shrub pruning is completed on trees and/or shrubs. Cut vegetative material is left on the ground providing cover, and increasing organic matter. Alternative row pruning, treating every other row (or one-half the plants), in the same field, is completed 2 times. Renovation pruning is conducted one time for the entire field.

Scenario Feature Measure: individual tree/shrub pruned

Scenario Unit: Each

Scenario Typical Size: 800

Scenario Cost: $739.86 **Scenario Cost/Unit:** $0.92

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	Hour	$6.23	10	$62.30
Pruning tools, hand tools	1318	Pruning tools, hand tools, shears, loppers, pole saw, handsaw. Material costs only. Labor not included.	Hour	$1.09	4	$4.36
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	$24.74	10	$247.40
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	$42.58	10	$425.80

Practice: 660 - Tree Pruning

Scenario: #6 - Pruning-MultiStory Cropping-Overstory

Scenario Description:

Overstory tree crowns are pruned to increase sunlight to understory shrubs and low growing trees that have been purposely established to grow on the same acre of ground. Resource concern is degraded plant condition - undesirable plant productivity and health.

Before Situation:

The overstory trees are expanding their crowns, providing to much shade on the understory plants. The shade is affecting the growth and production of the understory plants. Pruning of branches, leaves, frawns, etc. are needed to maintain the desired amount of sunlight reaching the understory.

After Situation:

Pruning of the overstory tree crowns is completed, allowing the proper amount of sunlight to reach the understory vegetation, maintaining their growth, health and vigor, and wildlife benefits.

Scenario Feature Measure: Overstory Trees Pruned

Scenario Unit: each

Scenario Typical Size: 120

Scenario Cost: $932.36 **Scenario Cost/Unit:** $7.77

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Pruning tool, pole saw	1319	Gasoline powered pole chainsaw. Labor not included.	Hour	$7.76	20	$155.20
Pruning tools, hand tools	1318	Pruning tools, hand tools, shears, loppers, pole saw, handsaw. Material costs only. Labor not included.	Hour	$1.09	12	$13.08
Chainsaw	937	Equipment and power unit costs. Labor not included.	Hour	$6.23	0	$0.00
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	$24.74	24	$593.76
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	$42.58	4	$170.32

Practice: 660 - Tree Pruning

Scenario: #7 - Blueberries

Scenario Description:

Wild low bush blueberries are pruned every other year to eliminate competetive plants, and stimulate new growth.

Before Situation:

Wild low bush blueberries are burned every other year to eliminate weeds and stimulate new growth. Burning produces air pollutants and uses excess fuel.

After Situation:

Blueberries are pruned rather than burned. Organic matter is left on surface, improving soil condition. Less fuel is used than for the burning process. Air quality impacts are reduced.

Scenario Feature Measure: Acres of blueberry cropland

Scenario Unit: Acre

Scenario Typical Size: 10

Scenario Cost: $562.30 **Scenario Cost/Unit:** $56.23

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hour	$30.40	10	$304.00
Pruning tools, hand tools	1318	Pruning tools, hand tools, shears, loppers, pole saw, handsaw. Material costs only. Labor not included.	Hour	$1.09	10	$10.90
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	$24.74	10	$247.40

Practice: 660 - Tree Pruning

Scenario: #8 - Sanitation

Scenario Description:

Pruning trees where Insects, and/or diseases create the potential for reducing growth, causing tree deformities and/or death. Hand tools and power tools are used to cut branches from trees. Resource concerns include degraded plant vigor, growth, and condition causing undesirable plant productivity and health.

Before Situation:

The forest stand has been identified as infested and/or infected with insects and/or disease. Typical setting is forestland or wildlife lands where the infestations and infections are established and are negatively affecting wildlife food and cover and tree productivity and health. Skilled labor will be consultant time for forester and General labor for landowner or other workers pruning and or moving brush.

After Situation:

The typical forest pruning treatment is 5 acres. Trees are pruned to the remove the infested and or infected branches. Pruned branches are treated as prescribed by the consultant Forester. After treatment, infestations and infections have been controlled to a level that meets client objectives to improve wildlife habitat, tree productivity, health, and vigor. Pruned branches are treated if they are considered a hazard, see Woody Residue Treatment standard.

Scenario Feature Measure: individual tree pruned

Scenario Unit: Acre

Scenario Typical Size: 5

Scenario Cost: $976.75 **Scenario Cost/Unit:** $195.35

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	Hour	$6.23	10	$62.30
Pruning tools, hand tools	1318	Pruning tools, hand tools, shears, loppers, pole saw, handsaw. Material costs only. Labor not included.	Hour	$1.09	5	$5.45
Pruning tool, pole saw	1319	Gasoline powered pole chainsaw. Labor not included.	Hour	$7.76	10	$77.60
Labor						
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	$42.58	5	$212.90
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	$24.74	25	$618.50