**DOUGLAS-FIR-HEMLOCK**

**SIZE CLASS 3**

**PARTIAL CUT**

**A SERIES OF 6 LEVELS**

**Reminders to users:**

1. The marker in these photos is 1 foot square, and the pole is painted in contrasting colors at 1-foot intervals to provide perspective.
2. Stumps are not included in residue quantities.
3. Rotted residue is that which would come apart or splinter when kicked.

1-DF-3-PC

DATA SHEET Residue descriptive code 1-DF-3-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 1.3 | 85 |
| 1.1-3.0 | 2.8 | 224 |
| 3.1-9.0 | 4.8 | 356 |
| 9.1-20.0 | 0 | 0 |
| 20.1+ | 0 | 0 |
| Total | 8.9 | 665 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.4

Ground area covered by residue 1/4-inch diameter and larger (percent) 76

Average duff and litter depth (inches) 1.3

Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 71

western redcedar (percent) 13

(percent)

Rotted residue 3.1-inch diameter and larger (percent) 16

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 8.2

Net volume cruised (M fbm/acre) 7.9

Average stems/acre cut 41

Average d.b.h. of stems cut (inches) 12

Stand age (years) 60

Cutting prescription Tree selection

Yarding method Tractor

Slash treatment None

Period since cut or treatment (months) 1

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre

Stems remaining/acre

Basal area/acre before

Basal area/acre after

Average d.b.h. before (inches)

Average d.b.h. after (inches)

Thinning method

Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification LM

## REMARKS

2-DF-3-PC

DATA SHEET Residue descriptive code 2-DF-3-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 2.0 | 112 |
| 1.1-3.0 | 2.1 | 129 |
| 3.1-9.0 | 10.8 | 733 |
| 9.1-20.0 | 0 | 0 |
| 20.1+ | 0 | 0 |
| Total | 14.9 | 974 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.2
Ground area covered by residue 1/4-inch diameter and larger (percent) 68
Average duff and litter depth (inches) 1.3
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 96
_____ (percent) ____
_____ (percent) ____
Rotted residue 3.1-inch diameter and larger (percent) 4

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 3.0
Net volume cruised (M fbm/acre) 2.8
Average stems/acre cut 35
Average d.b.h. of stems cut (inches) 12
Stand age (years) 50
Cutting prescription Tree selection
Yarding method Rubber-tired skidder
Slash treatment None
Period since cut or treatment (months) 8

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre ____
Stems remaining/acre ____
Basal area/acre before ____
Basal area/acre after ____
Average d.b.h. before (inches) ____
Average d.b.h. after (inches) ____
Thinning method ____
Slash treatment ____

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification MM

## REMARKS

3-DF-3-PC

DATA SHEET Residue descriptive code 3-DF-3-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 1.7 | 116 |
| 1.1-3.0 | 3.6 | 289 |
| 3.1-9.0 | 14.6 | 1,057 |
| 9.1-20.0 | 6.8 | 728 |
| 20.1+ | 0 | 0 |
| Total | 26.7 | 2,190 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.5
Ground area covered by residue 1/4-inch diameter and larger (percent) 91
Average duff and litter depth (inches) 2.0
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 47
western redcedar (percent) 2
(percent)
Rotted residue 3.1-inch diameter and larger (percent) 51

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 4.7
Net volume cruised (M fbm/acre) 4.5
Average stems/acre cut 44
Average d.b.h. of stems cut (inches) 13
Stand age (years) 45
Cutting prescription Tree selection
Yarding method Tractor
Slash treatment None
Period since cut or treatment (months) 8

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification MH

## REMARKS

4-DF-3-PC

DATA SHEET Residue descriptive code 4-DF-3-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 1.9 | 108 |
| 1.1-3.0 | 8.0 | 495 |
| 3.1-9.0 | 21.1 | 1,546 |
| 9.1-20.0 | 31.9 | 2,860 |
| 20.1+ | 2.6 | 281 |
| Total | 65.5 | 5,290 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.5
Ground area covered by residue 1/4-inch diameter and larger (percent) 83
Average duff and litter depth (inches) 8.2
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 45
_____ (percent) ____
_____ (percent) ____
Rotted residue 3.1-inch diameter and larger (percent) 55

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 66.1
Net volume cruised (M fbm/acre) 59.6
Average stems/acre cut 105
Average d.b.h. of stems cut (inches) 22
Stand age (years) 90
Cutting prescription Shelterwood
Yarding method High-lead
Slash treatment Fall broadcast burn
Period since cut or treatment (months) 22

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre ____
Stems remaining/acre ____
Basal area/acre before ____
Basal area/acre after ____
Average d.b.h. before (inches) ____
Average d.b.h. after (inches) ____
Thinning method ____
Slash treatment ____

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification MH

## REMARKS

5-DF-3-PC

DATA SHEET Residue descriptive code 5-DF-3-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 4.5 | 260 |
| 1.1-3.0 | 18.6 | 1,146 |
| 3.1-9.0 | 16.3 | 1,201 |
| 9.1-20.0 | 10.6 | 898 |
| 20.1+ | 26.6 | 2,467 |
| Total | 76.6 | 5,962 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.9
Ground area covered by residue 1/4-inch diameter and larger (percent) 97
Average duff and litter depth (inches) 5.4
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 41
cherry (percent) 1
(percent)
Rotted residue 3.1-inch diameter and larger (percent) 58

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 27.2
Net volume cruised (M fbm/acre) 25.6
Average stems/acre cut 64
Average d.b.h. of stems cut (inches) 24
Stand age (years) 80
Cutting prescription Shelterwood
Yarding method High-lead
Slash treatment None
Period since cut or treatment (months) 10

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification MH

## REMARKS

6-DF-3-PC

DATA SHEET Residue descriptive code 6-DF-3-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 1.8 | 122 |
| 1.1-3.0 | 2.6 | 205 |
| 3.1-9.0 | 14.4 | 1,106 |
| 9.1-20.0 | 4.5 | 354 |
| 20.1+ | 64.4 | 4,882 |
| Total | 87.7 | 6,669 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.3

Ground area covered by residue 1/4-inch diameter and larger (percent) 71

Average duff and litter depth (inches) 1.8

Sound residue 3.1-inch diameter and larger
- Douglas-fir (percent) 61
- white fir (percent) 6
- other (percent) 2

Rotted residue 3.1-inch diameter and larger (percent) 31

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 6.3

Net volume cruised (M fbm/acre) 5.7

Average stems/acre cut 46

Average d.b.h. of stems cut (inches) 11

Stand age (years) 50

Cutting prescription Tree selection

Yarding method Tractor

Slash treatment Hand piled & burned

Period since cut or treatment (months) 12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre

Stems remaining/acre

Basal area/acre before

Basal area/acre after

Average d.b.h. before (inches)

Average d.b.h. after (inches)

Thinning method

Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification LM

## REMARKS

Material 9.1+ inches in diameter was a result of logging old-growth stand in early 1900's.

## DOUGLAS-FIR-HEMLOCK

## SIZE CLASS 1

## PRECOMMERCIAL THINNING

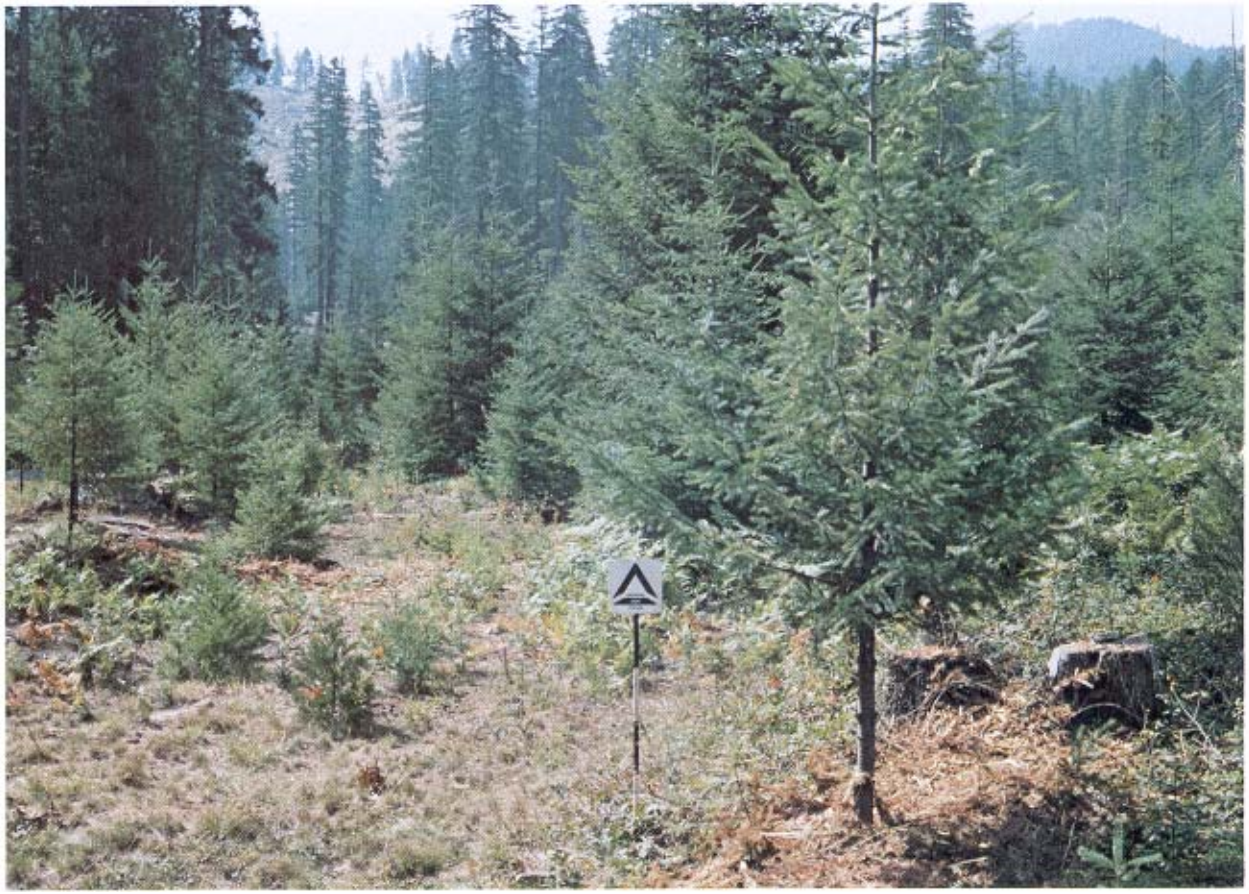
## A SERIES OF 4 LEVELS

### Reminders to users:

1. The marker in these photos is 1 foot square, and the pole is painted in contrasting colors at 1-foot intervals to provide perspective.

2. Stumps are not included in residue quantities.

3. Rotted residue is that which would come apart or splinter when kicked.



1-DF-1-TH

DATA SHEET Residue descriptive code 1-DF-1-TH

## LOADING

| Size class (inches) | Weight (tons/acre) | | Volume ($ft^3$/acre) | |
|---|---|---|---|---|
| 0.25-1.0 | 0.4 | 0 | 27 | 0 |
| 1.1-3.0 | 0.4 | 0 | 28 | 0 |
| 3.1-9.0 | 0 | 1/ 1.4 | 0 | 1/ 117 |
| 9.1-20.0 | 0 | 1/ 6.0 | 0 | 1/ 606 |
| 20.1+ | 0 | 1/ 10.8 | 0 | 1/ 724 |
| Total | 0.8 | 1/ 18.2 | 55 | 1/ 1,447 |

## OTHER MEASUREMENTS

| | | | |
|---|---|---|---|
| Average residue depth | | (feet) | 0.2 |
| Ground area covered by residue 1/4-inch diameter and larger | | (percent) | 33 |
| Average duff and litter depth | | (inches) | 1.3 |
| Sound residue 3.1-inch diameter and larger | Douglas-fir | (percent) | 56 |
| | western redcedar | (percent) | 14 |
| | | (percent) | |
| Rotted residue 3.1-inch diameter and larger | | (percent) | 30 |

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) _____
Net volume cruised (M fbm/acre) _____
Average stems/acre cut _____
Average d.b.h. of stems cut (inches) _____
Stand age (years) _____
Cutting prescription _____
Yarding method _____
Slash treatment _____
Period since cut or treatment (months _____

## PRECOMMERCIAL THINNING INFORMATION

| | |
|---|---|
| Stems cut/acre | 1,547 |
| Stems remaining/acre | 700 |
| Basal area/acre before | 196 |
| Basal area/acre after | 61 |
| Average d.b.h. before (inches) | 4 |
| Average d.b.h. after (inches) | 4 |
| Thinning method | Chainsaw |
| Slash treatment | Chipped |

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification: LL

## REMARKS

Residue loadings footnoted were present prior to thinning.

1/

2-DF-1-TH

DATA SHEET Residue descriptive code 2-DF-1-TH

## LOADING

| Size class (inches) | Weight (tons/acre) | | Volume ($ft^3$/acre) | |
|---|---|---|---|---|
| 0.25-1.0 | 0.7 | 0 | 41 | 0 |
| 1.1-3.0 | 0.9 | 0 | 57 | 0 |
| 3.1-9.0 | 0 | 1/ 2.2 | 0 | 1/ 239 |
| 9.1-20.0 | 0 | 1/ 16.3 | 0 | 1/ 1,744 |
| 20.1+ | 0 | 1/ 75.0 | 0 | 1/ 8,015 |
| Total | 1.6 | 1/ 93.5 | 98 | 1/ 9,998 |

## OTHER MEASUREMENTS

| | | |
|---|---|---|
| Average residue depth | (feet) | 0.4 |
| Ground area covered by residue 1/4-inch diameter and larger | (percent) | 61 |
| Average duff and litter depth | (inches) | 1.0 |
| Sound residue 3.1-inch diameter and larger | (percent) | |
| | (percent) | |
| | (percent) | |
| Rotted residue 3.1-inch diameter and larger | (percent) | 100 |

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) _____
Net volume cruised (M fbm/acre) _____
Average stems/acre cut _____
Average d.b.h. of stems cut (inches) _____
Stand age (years) _____
Cutting prescription _____
Yarding method _____
Slash treatment _____
Period since cut or treatment (months _____

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre 1,057
Stems remaining/acre 241
Basal area/acre before 113
Basal area/acre after 47
Average d.b.h. before (inches) 4
Average d.b.h. after (inches) 6
Thinning method Chainsaw
Slash treatment Hand piled & burned

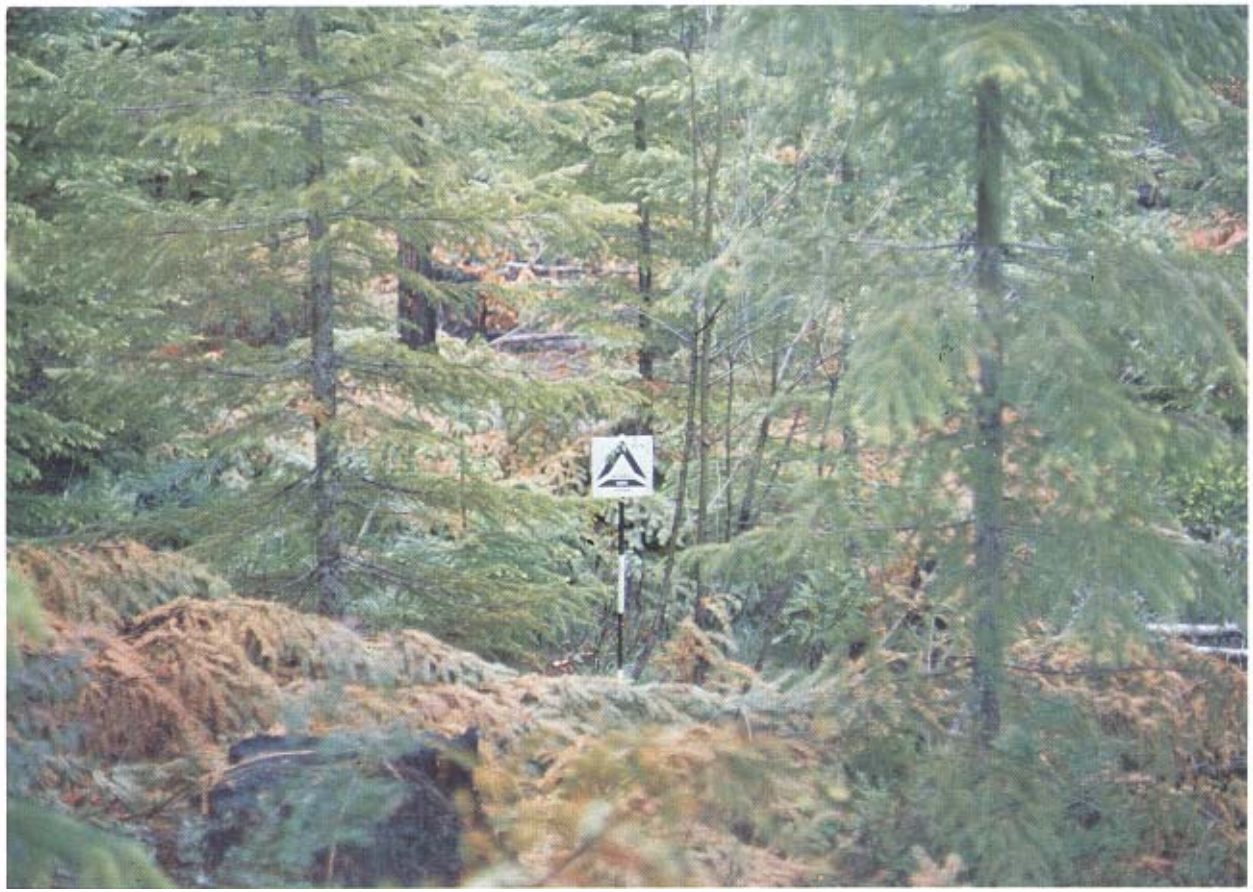
## FUEL RATING

U.S. Forest Service Region 6 fuel type identification LH

## REMARKS

Residue loadings footnoted were present prior to thinning.

1/ See remarks.



3-DF-1-TH

DATA SHEET Residue descriptive code 3-DF-1-TH

## LOADING

| Size class (inches) | Weight (tons/acre) | | Volume ($ft^3$/acre) | |
|---|---|---|---|---|
| 0.25-1.0 | 2.1 | 0 | 122 | 0 |
| 1.1-3.0 | 2.9 | 0 | 181 | 0 |
| 3.1-9.0 | 2.7 | 1/ 2.9 | 171 | 1/ 267 |
| 9.1-20.0 | 0 | 1/ 10.1 | 0 | 1/ 866 |
| 20.1+ | 0 | 0 | 0 | 0 |
| Total | 7.7 | 1/ 13.0 | 474 | 1/ 1,133 |

## OTHER MEASUREMENTS

Average residue depth (feet) 1.0

Ground area covered by residue 1/4-inch diameter and larger (percent) 69

Average duff and litter depth (inches) 0.9

Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 40

chinkapin (percent) 2

(percent)

Rotted residue 3.1-inch diameter and larger (percent) 58

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre)

Net volume cruised (M fbm/acre)

Average stems/acre cut

Average d.b.h. of stems cut (inches)

Stand age (years)

Cutting prescription

Yarding method

Slash treatment

Period since cut or treatment (months

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre 159

Stems remaining/acre 219

Basal area/acre before 52

Basal area/acre after 43

Average d.b.h. before (inches) 5

Average d.b.h. after (inches) 6

Thinning method Chainsaw

Slash treatment None

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification HH

## REMARKS

Residue loadings footnoted were present prior to thinning

1/ See remarks.

4-DF-1 -TH

DATA SHEET  Residue descriptive code 4-DF-1-TH

## LOADING

| Size class (inches) | Weight (tons/acre) | | Volume ($ft^3$/acre) | |
|---|---|---|---|---|
| 0.25-1.0 | 4.1 | 0 | 272 | 0 |
| 1.1-3.0 | 5.3 | 0 | 422 | 0 |
| 3.1-9.0 | 1.6 | 1/ 14.9 | 108 | 1/ 1,072 |
| 9.1-20.0 | 0 | 1/ 15.5 | 0 | 1/ 1,054 |
| 20.1+ | 0 | 1/ 81.5 | 0 | 1/ 5,620 |
| Total | 11.0 | 1/ 111.9 | 802 | 1/ 7,746 |

## OTHER MEASUREMENTS

Average residue depth (feet) 2.3
Ground area covered by residue 1/4-inch diameter and larger (percent) 93
Average duff and litter depth (inches) 1.3
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 90
western redcedar (percent) 7
(percent)
Rotted residue 3.1-inch diameter and larger (percent) 3

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre)
Net volume cruised (M fbm/acre)
Average stems/acre cut
Average d.b.h. of stems cut (inches)
Stand age (years)
Cutting prescription
Yarding method
Slash treatment
Period since cut or treatment (months

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre 1,058
Stems remaining/acre 317
Basal area/acre before 120
Basal area/acre after 43
Average d.b.h. before (inches) 4
Average d.b.h. after (inches) 5
Thinning method Chainsaw
Slash treatment None

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification HE

## REMARKS

Residue loadings footnoted were present prior to thinning.

1/ See remarks.

**DOUGLAS-FIR-HARDWOOD**

**SIZE CLASS 4**

**CLEARCUT**

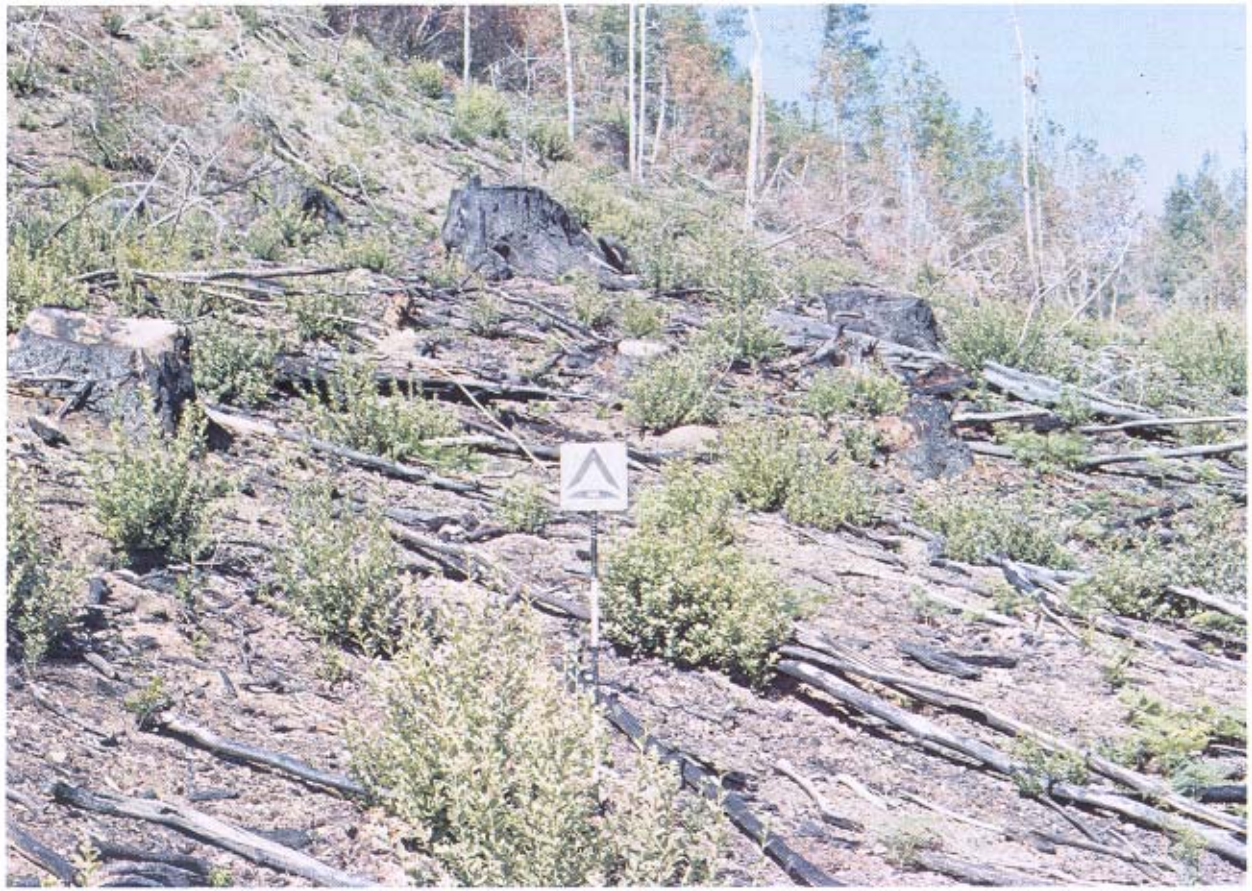
**A SERIES OF 7 LEVELS**

**Reminders to users:**

1. The marker in these photos in 1 foot square, and the pole is painted in contrasting colors at 1-foot intervals to provide perspective.

2. Stumps are not included in residue quantities.

3. Potted residue is that which would come apart or splinter when kicked.



1-DFHD-4-CC

DATA SHEET Residue descriptive code 1-DFHD-4-CC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 1.1 | 70 |
| 1.1-3.0 | 3.1 | 252 |
| 3.1-9.0 | 3.7 | 255 |
| 9.1-20.0 | 2.5 | 235 |
| 20.1+ | 0 | 0 |
| Total | 10.4 | 812 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.2
Ground area covered by residue 1/4-inch diameter and larger (percent) 55
Average duff and litter depth (inches) 0
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 32
tanoak (percent) 18
(percent)
Rotted residue 3.1-inch diameter and larger (percent) 50

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 46.4
Net volume cruised (M fbm/acre) 33.3
Average stems/acre cut 30
Average d.b.h. of stems cut (inches) 35
Stand age (years) 250
Cutting prescription Clearcut
Yarding method High-lead
Slash treatment Spring broadcast burn
Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification LM

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 3C .

2-DFHD-4-CC

DATA SHEET Residue descriptive code 2-DFHD-4-CC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 2.0 | 132 |
| 1.1-3.0 | 5.1 | 405 |
| 3.1-9.0 | 8.8 | 577 |
| 9.1-20.0 | 2.6 | 176 |
| 20.1+ | 0 | 0 |
| Total | 18.5 | 1,290 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.2
Ground area covered by residue 1/4-inch diameter and larger (percent) 61
Average duff and litter depth (inches) 0
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 95
tanoak (percent) 5
(percent)
Rotted residue 3.1-inch diameter and larger (percent) 0

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 40.0
Net volume cruised (M fbm/acre) 35.0
Average stems/acre cut 29
Average d.b.h. of stems cut (inches) 33
Stand age (years) 200
Cutting prescription Clearcut
Yarding method High-lead
Slash treatment Spring broadcast burn
Period since cut or treatment (months) 7

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification MM

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 2C.

3-DFHD-4-CC

DATA SHEET Residue descriptive code 3-DFHD-4-CC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 1.3 | 85 |
| 1.1-3.0 | 4.0 | 321 |
| 3.1-9.0 | 16.6 | 1,037 |
| 9.1-20.0 | 9.6 | 795 |
| 20.1+ | 6.8 | 530 |
| Total | 38.3 | 2,768 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.2
Ground area covered by residue 1/4-inch diameter and larger (percent) 45
Average duff and litter depth (inches) 0
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 50
tanoak (percent) 19
other (percent) 1
Rotted residue 3.1-inch diameter and larger (percent) 30

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 43.3
Net volume cruised (M fbm/acre) 36.7
Average stems/acre cut 29
Average d.b.h. of stems cut (inches) 12
Stand age (years) 200
Cutting prescription Clearcut
Yarding method Slackline
Slash treatment Spring broadcast burn
Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification MM

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 3C .

4-DFHD-4-CC

DATA SHEET Residue descriptive code 4-DFHD-4-CC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 3.7 | 244 |
| 1.1-3.0 | 6.3 | 502 |
| 3.1-9.0 | 15.3 | 968 |
| 9.1-20.0 | 12.8 | 828 |
| 20.1+ | 3.6 | 239 |
| Total | 41.7 | 2,781 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.5
Ground area covered by residue 1/4-inch diameter and larger (percent) 81
Average duff and litter depth (inches) 0
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 82
tanoak (percent) 16
other (percent) 1
Rotted residue 3.1-inch diameter and larger (percent) 1

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 48.8
Net volume cruised (M fbm/acre) 42.3
Average stems/acre cut 37
Average d.b.h. of stems cut (inches) 31
Stand age (years) 200
Cutting prescription Clearcut
Yarding method High-lead
Slash treatment YUM*
Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification MM

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 3B.

*Required yarding unmerchantable material (YUM) down to 8 inches, small end and 10 feet in length.

5-DFHD-4-CC

DATA SHEET Residue descriptive code 5-DFHD-4-CC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 2.7 | 179 |
| 1.1-3.0 | 4.8 | 386 |
| 3.1-9.0 | 37.8 | 2,045 |
| 9.1-20.0 | 24.8 | 1,233 |
| 20.1+ | 10.9 | 505 |
| Total | 81.0 | 4,348 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.8

Ground area covered by residue 1/4-inch diameter and larger (percent) 83

Average duff and litter depth (inches) 0

Sound residue 3.1-inch diameter and larger tanoak (percent) 54

madrone (percent) 43

other (percent) 3

Rotted residue 3.1-inch diameter and larger (percent) 1

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 20.5

Net volume cruised (M fbm/acre) 18.4

Average stems/acre cut 119

Average d.b.h. of stems cut (inches) 18

Stand age (years) 200

Cutting prescription Clearcut

Yarding method High-lead

Slash treatment None

Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre

Stems remaining/acre

Basal area/acre before

Basal area/acre after

Average d.b.h. before (inches)

Average d.b.h. after (inches)

Thinning method

Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification HH

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 3C.

6-DFHD-4-CC

DATA SHEET Residue descriptive code 6-DFHD-4-CC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 5.6 | 371 |
| 1.1-3.0 | 10.4 | 833 |
| 3.1-9.0 | 51.6 | 2,847 |
| 9.1-20.0 | 13.8 | 793 |
| 20.1+ | 0 | 0 |
| Total | 81.4 | 4,844 |

## OTHER MEASUREMENTS

Average residue depth (feet) 2.1
Ground area covered by residue 1/4-inch diameter and larger (percent) 97
Average duff and litter depth (inches) 0
Sound residue 3.1-inch diameter and larger tanoak (percent) 75
Douglas-fir (percent) 12
other (percent) 11
Rotted residue 3.1-inch diameter and larger (percent) 2

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 43.5
Net volume cruised (M fbm/acre) 38.2
Average stems/acre cut 34
Average d.b.h. of stems cut (inches) 34
Stand age (years) 200
Cutting prescription Clearcut
Yarding method Slackline
Slash treatment None
Period since cut or treatment (months) 12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification EE

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 3C .

7-DFHD-4-CC

DATA SHEET Residue descriptive code 7-DFHD-4-CC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 6.5 | 435 |
| 1.1-3.0 | 10.5 | 842 |
| 3.1-9.0 | 77.5 | 4,083 |
| 9.1-20.0 | 16.3 | 842 |
| 20.1+ | 0 | 0 |
| Total | 110.8 | 6,202 |

## OTHER MEASUREMENTS

Average residue depth (feet) 1.9
Ground area covered by residue 1/4-inch diameter and larger (percent) 95
Average duff and litter depth (inches) 0
Sound residue 3.1-inch diameter and larger madrone (percent) 45
tanoak (percent) 39
other (percent) 14
Rotted residue 3.1-inch diameter and larger (percent) 2

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 54.7
Net volume cruised (M fbm/acre) 46.6
Average stems/acre cut 34
Average d.b.h. of stems cut (inches) 31
Stand age (years) 200
Cutting prescription Clearcut
Yarding method Slackline
Slash treatment None
Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification EE

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 3C .

**DOUGLAS-FIR-HARDWOOD**

**SIZE CLASS 4**

**PARTIAL CUT**

**A SERIES OF 6 LEVELS**

**Reminders to users:**

1. The marker in these photos is 1 foot square, and the pole is painted in contrasting colors at 1-foot intervals to provide perspective.

2. Stumps are not included in residue quantities.

3. Rotted residue is that which would come apart or splinter when kicked.

1-DFHD-4-PC

DATA SHEET Residue descriptive code 1-DFHD-4-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 0.7 | 49 |
| 1.1-3.0 | 3.4 | 270 |
| 3.1-9.0 | 4.0 | 227 |
| 9.1-20.0 | 4.2 | 415 |
| 20.1+ | 0 | 0 |
| Total | 12.3 | 961 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.1
Ground area covered by residue 1/4-inch diameter and larger (percent) 40
Average duff and litter depth (inches) 0.1
Sound residue 3.1-inch diameter and larger madrone (percent) 16
Douglas-fir (percent) 11
other (percent) 10
Rotted residue 3.1-inch diameter and larger (percent) 63

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 20.3
Net volume cruised (M fbm/acre) 16.4
Average stems/acre cut 9
Average d.b.h. of stems cut (inches) 38
Stand age (years) 250+
Cutting prescription Overstory removal
Yarding method Rubber-tired skidder
Slash treatment Machine piled
Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification LL

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 3A .

2-DFHD-4-PC

DATA SHEET Residue descriptive code 2-DFHD-4-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 2.0 | 132 |
| 1.1-3.0 | 8.7 | 693 |
| 3.1-9.0 | 5.1 | 409 |
| 9.1-20.0 | 2.8 | 235 |
| 20.1+ | 0 | 0 |
| Total | 18.6 | 1,469 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.4
Ground area covered by residue 1/4-inch diameter and larger (percent) 69
Average duff and litter depth (inches) 0.4
Sound residue 3.1-inch diameter and larger western white pine (percent) 57
red fir (percent) 22
other (percent) 19
Rotted residue 3.1-inch diameter and larger (percent) 2

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 48.3
Net volume cruised (M fbm/acre) 37.5
Average stems/acre cut 20
Average d.b.h. of stems cut (inches) 34
Stand age (years) 250
Cutting prescription Shelterwood
Yarding method Skyline
Slash treatment YUM*
Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification HH

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 2A.

*Required yarding unmerchantable material (YUM) down to 8 inches in diameter, small end and 10 feet in length.

3-DFHD-4-PC

DATA SHEET Residue descriptive code 3-DFHD-4-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 1.7 | 116 |
| 1.1-3.0 | 8.7 | 693 |
| 3.1-9.0 | 16.9 | 1,237 |
| 9.1-20.0 | 8.1 | 730 |
| 20.1+ | 0 | 0 |
| Total | 35.4 | 2,776 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.5

Ground area covered by residue 1/4-inch diameter and larger (percent) 72

Average duff and litter depth (inches) 0.1

Sound residue 3.1-inch diameter and larger white fir (percent) 51

tanoak (percent) 19

other (percent) 5

Rotted residue 3.1-inch diameter and larger (percent) 25

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 35.4

Net volume cruised (M fbm/acre) 24.1

Average stems/acre cut 16

Average d.b.h. of stems cut (inches) 37

Stand age (years) 250+

Cutting prescription Shelterwood

Yarding method High-lead

Slash treatment YUM*

Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre

Stems remaining/acre

Basal area/acre before

Basal area/acre after

Average d.b.h. before (inches)

Average d.b.h. after (inches)

Thinning method

Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification HM

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 3A .

*Required yarding unmerchantable material (YUM) down to 8 inches in diameter, small end and 10 feet in length.

4-DFHD-4-PC

DATA SHEET Residue descriptive code 4-DFHD-4-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 5.2 | 345 |
| 1.1-3.0 | 10.7 | 859 |
| 3.1-9.0 | 12.9 | 785 |
| 9.1-20.0 | 5.7 | 340 |
| 20.1+ | 8.0 | 532 |
| Total | 42.5 | 2,861 |

## OTHER MEASUREMENTS

Average residue depth (feet) 1.3
Ground area covered by residue 1/4-inch diameter and larger (percent) 95
Average duff and litter depth (inches) 1.1
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 78
madrone (percent) 16
other (percent) 4
Rotted residue 3.1-inch diameter and larger (percent) 2

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 37.4
Net volume cruised (M fbm/acre) 29.0
Average stems/acre cut 26
Average d.b.h. of stems cut (inches) 37
Stand age (years) 200+
Cutting prescription Overstory removal
Yarding method Tractor
Slash treatment None
Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification HH

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 3B.

100

5-DFHD-4-PC

DATA SHEET Residue descriptive code 5-DFHD-4-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 3.0 | 198 |
| 1.1-3.0 | 8.8 | 703 |
| 3.1-9.0 | 29.8 | 1,781 |
| 9.1-20.0 | 5.8 | 397 |
| 20.1+ | 33.2 | 2,720 |
| Total | 80.6 | 5,799 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.5
Ground area covered by residue 1/4-inch diameter and larger (percent) 85
Average duff and litter depth (inches) 1.2
Sound residue 3.1-inch diameter and larger madrone (percent) 25
Douglas-fir (percent) 19
other (percent) 22
Rotted residue 3.1-inch diameter and larger (percent) 34

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 35.2
Net volume cruised (M fbm/acre) 26.6
Average stems/acre cut 62
Average d.b.h. of stems cut (inches) 26
Stand age (years) 150
Cutting prescription Tree selection
Yarding method Mobile yarder
Slash treatment None
Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification HH

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 2C .

6-DFHD-4-PC

DATA SHEET Residue descriptive code 6-DFHD-4-PC

## LOADING

| Size class (inches) | Weight (tons/acre) | Volume ($ft^3$/acre) |
|---|---|---|
| 0.25-1.0 | 2.5 | 166 |
| 1.1-3.0 | 8.7 | 693 |
| 3.1-9.0 | 14.0 | 1,055 |
| 9.1-20.0 | 31.4 | 2,413 |
| 20.1+ | 34.2 | 2,506 |
| Total | 90.8 | 6,833 |

## OTHER MEASUREMENTS

Average residue depth (feet) 0.6
Ground area covered by residue 1/4-inch diameter and larger (percent) 76
Average duff and litter depth (inches) 0.3
Sound residue 3.1-inch diameter and larger Douglas-fir (percent) 57
Port-Orford-cedar (percent) 18
(percent)
Rotted residue 3.1-inch diameter and larger (percent) 25

## HARVEST INFORMATION

Gross volume cruised (M fbm/acre) 37.4
Net volume cruised (M fbm/acre) 30.9
Average stems/acre cut 10
Average d.b.h. of stems cut (inches) 45
Stand age (years) 200+
Cutting prescription Overstory removal
Yarding method Tractor
Slash treatment None
Period since cut or treatment (months) <12

## PRECOMMERCIAL THINNING INFORMATION

Stems cut/acre
Stems remaining/acre
Basal area/acre before
Basal area/acre after
Average d.b.h. before (inches)
Average d.b.h. after (inches)
Thinning method
Slash treatment

## FUEL RATING

U.S. Forest Service Region 6 fuel type identification HH

## REMARKS

Down and dead hardwoods comprise much of the residue in this photo series level. The understory hardwood stand prior to logging, using rating criteria where:

1 = <5 ft in height
2 = 5-15 ft in height
3 = >15 ft in height
and
A = 0-33% understory crown space occupied
B = 34-66% " " " "
C = 67-100% " " " "

was rated by District Foresters as 1A.

The PACIFIC NORTHWEST FOREST AND RANGE EXPERIMENT SIAIION is to provide the knowledge, technology and alternatives for present and future protection, management and use of forest, range, and related environments.

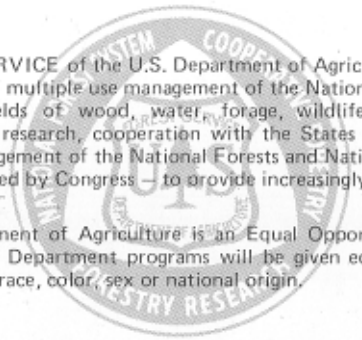
Within this overall mission, the Station conducts and Stimulates research to facilitate and to accelerate progress toward the following goals:

1. Providing safe and efficient technology for inventory protection, and use of resources.
2. Developing and evaluating alternative methods and level, of resource management.
3. Achieving optimum sustained resource productivity consistent with maintaining a high quality to test

The area of research c encompasses Oregon, Washington, Alaska, and, 10 some cases, California, Hawaii, the Western States, and the Nation. Results of the research are made available promptly. Project headquarters are made available promptly. Project headquarters are at:

| | |
|---|---|
| Fairbanks, Alaska | Portland, Oregon |
| Juneau, Alaska | Olympia, Washington |
| Bend, Oregon | Seattle, Washington |
| Corvallis, Oregon | Wenatchee, Washington |
| La Grande, Oregon | |

*Mailing addres:.* *Pacific Northwest Forest and Range Experiment Station*
*P.O. Box 3141*
*Portland, Oregon 97208*



The FOREST SERVICE of the U.S. Department of Agriculture is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives — as directed by Congress — to provide increasingly greater service to a growing Nation.

The U.S. Department of Agriculture is an Equal Opportunity Employer. Applicants for all Department programs will be given equal consideration without regard to race, color, sex or national origin.