Alberta
SUSTAINABLE RESOURCE DEVELOPMENT

PSP MANUALS
MASTER
TABLE OF FIGURES

March 2005

Public Lands and Forests Division
Forest Management Branch
8th Fl. 9920-108 Street
Edmonton, AB
T5K 2M4

Phone: (780) 427 - 8474

TABLE OF FIGURES

FIGURE 2.1 PLOT LAYOUT 1

FIGURE 2.2 PLOT BOUNDARIES 1

FIGURE 2.3 A SWATHS AND TAGGING ORDER 2

FIGURE 2.3B AN EXAMPLE OF NUMBERING ON TREE TAG 2

FIGURE 2.4 DETERMINING POINT OF GERMINATION AND BREAST HEIGHT 3

FIGURE 2.5 BASE OF LIVE CROWN 4

FIGURE 2.6 CROWN CLASS 4

FIGURE 2.7 INCREMENT WIDTHS 5

FIGURE 2.8 CROWN WIDTH MEASUREMENT 6

FIGURE 2.9 PRE-APRIL 1981 PLOT LAYOUT 7

FIGURE 2.10 GROUP PLOT MAINTENANCE FORM 8

FIGURE 2.11 BUFFER DAMAGES AREA 9

FIGURE 2.12 EXAMPLES OF BUFFER DAMAGE 10

FIGURE 2.13 DATA ENTRY ON PSP HEADER SHEET 11

FIGURE 2.14 DATA ENTRY ON PSP TALLY SHEET 12

FIGURE 2.15 DATA ENTRY ON REGENERATION TALLY SHEET 13

FIGURE 3.1 PSP TREE TALLY CHECK SHEET 14

FIGURE 4.1 TREE HEIGHT MEASUREMENT 15

FIGURE 4.2 HEIGHT MEASUREMENT OF LEANING TREES 16

FIGURE 4.3 CONK AND BLIND CONKS 17

FIGURE 4.4 OPEN SCARS 17

FIGURE 4.5 LARGE BURL ON MAIN STEM 18

FIGURE 4.6 FORKS 18

FIGURE 4.7 PRONOUNCED CROOK 19

FIGURE 4.8 LEANING TREE 19

FIGURE 4.9 ATROPELLIS CANKER 20
FIGURE 4.10 WITCHES ON SPRUCE 20
FIGURE 4.11 MISTLETOE 21
FIGURE 4.12 INSTRUCTIONS AND EXAMPLE OF THE USE OF THE 6 22
CLASS MISTLETOE RATING SYSTEM (HAWKSWORTH 1961, 1977) 22
FIGURE 4.13 GENERIC WOODPECKER 23
FIGURE 4.14 YELLOWBELLIED SAPSUCKER FEEDING 23
FIGURE 4.15 SMALL MAMMA L FEEDING ON TREE BOLE 24
FIGURE 4.16 EXCAVATIONS BY WOODPECKERS 24
FIGURE 4.17 SMALL CAVITY 25
FIGURE 4.18 LARGE CAVITY 25
FIGURE 4.19 ALBERTA SURVEY SYSTEM 26
FIGURE 4.20 PLOT BOUNDARIES 27
FIGURE 4.21 STAND DYNAMICS PLOT LAYOUT 28
FIGURE 4.22 PLOT MAINTENANCE REPORT 29
FIGURE 4.23 SEEDLING NUMBERING 30
FIGURE 4.24 STAND DYNAMICS TALLY SHEET (CSTM 101) RECORD TYPE 6 31
FIGURE 4.25 STAND DYNAMICS TALLY SHEET (CSTM 101) RECORD TYPE 7 (SAPLINGS) 32
FIGURE 4.26 STAND DYNAMICS TALLY SHEET (CSTM 101) RECORD TYPE 8 (TREE PLOT) 33
FIGURE 4.27 STAND DYNAMICS REGENERATION HEIGHT CLASS RECORD (CSTM 100) RECORD TYPE 61 34
FIGURE 4.28 VEGETATION DESCRIPTION FORM 35
FIGURE 4.29 PLOT RETREATMENT REPORT (RECORD TYPE 9) 36
FIGURE 4.30 STAND DYNAMICS TREE AGE TALLY SHEET 37
FIGURE 4.31 DIEB ACK 38

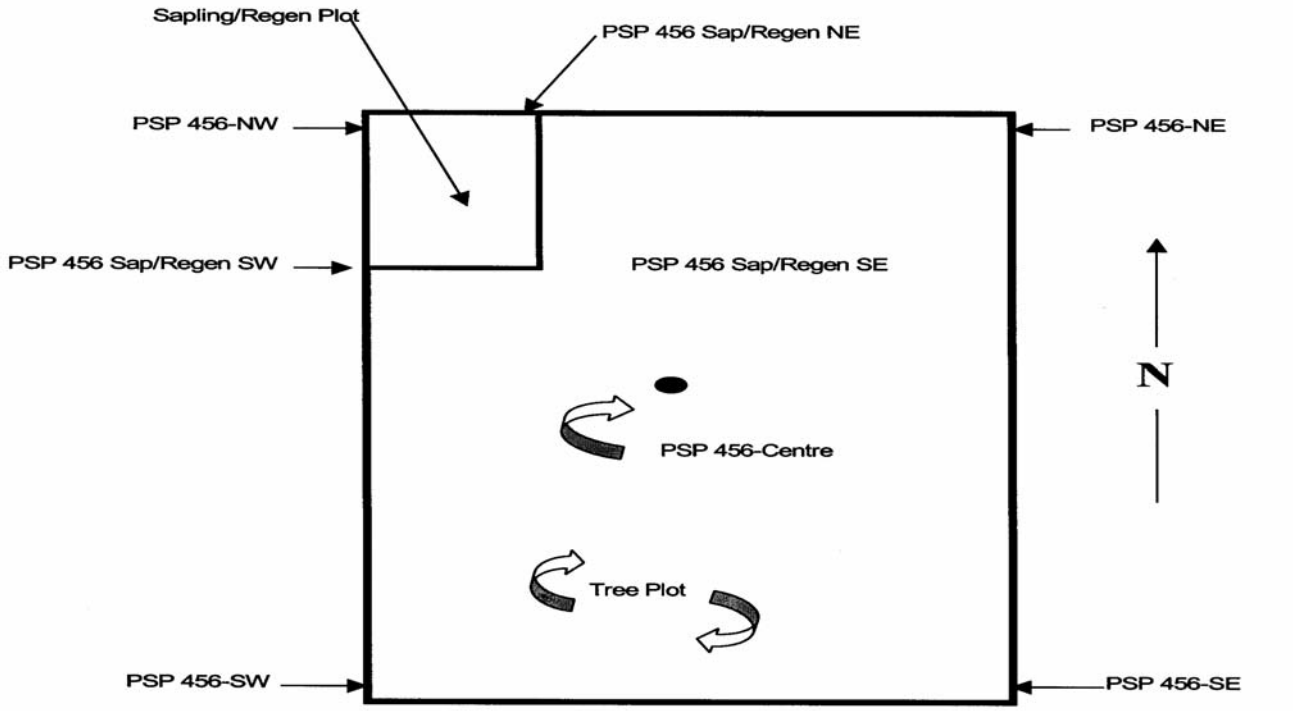


FIGURE 2.1 PLOT LAYOUT

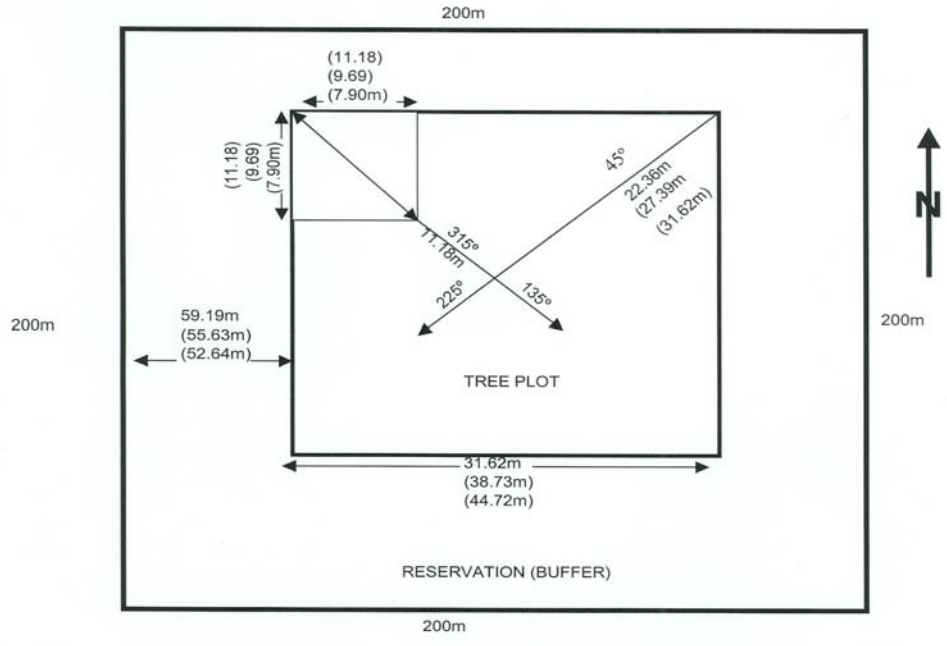


FIGURE 2.2 PLOT BOUNDARIES

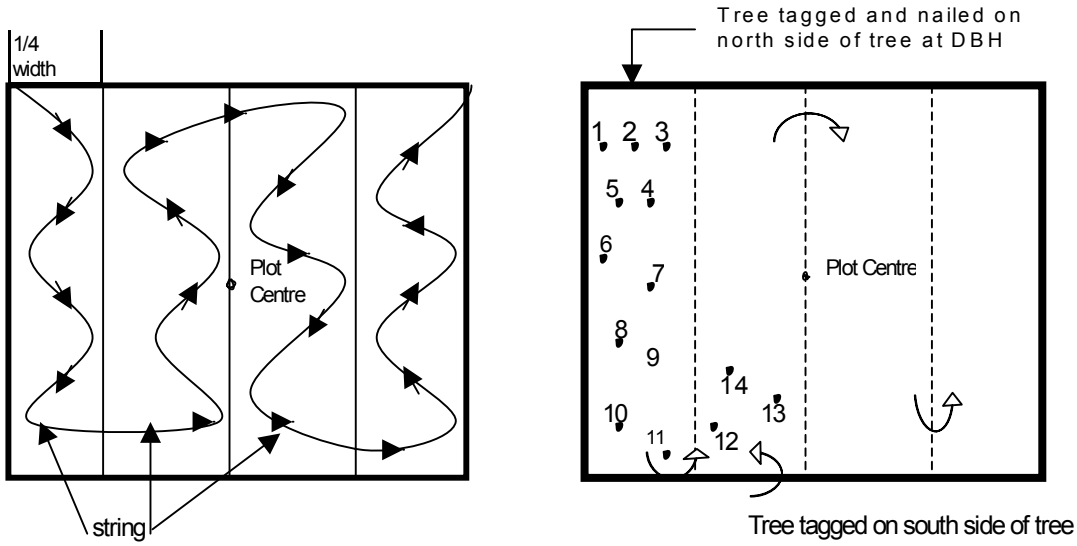


FIGURE 2.3 A SWATHS AND TAGGING ORDER

FIGURE 2.3B AN EXAMPLE OF NUMBERING ON TREE TAG

Trees forked below 1.3m are treated as <u>two</u> separate stems and are tagged and tallied as such.

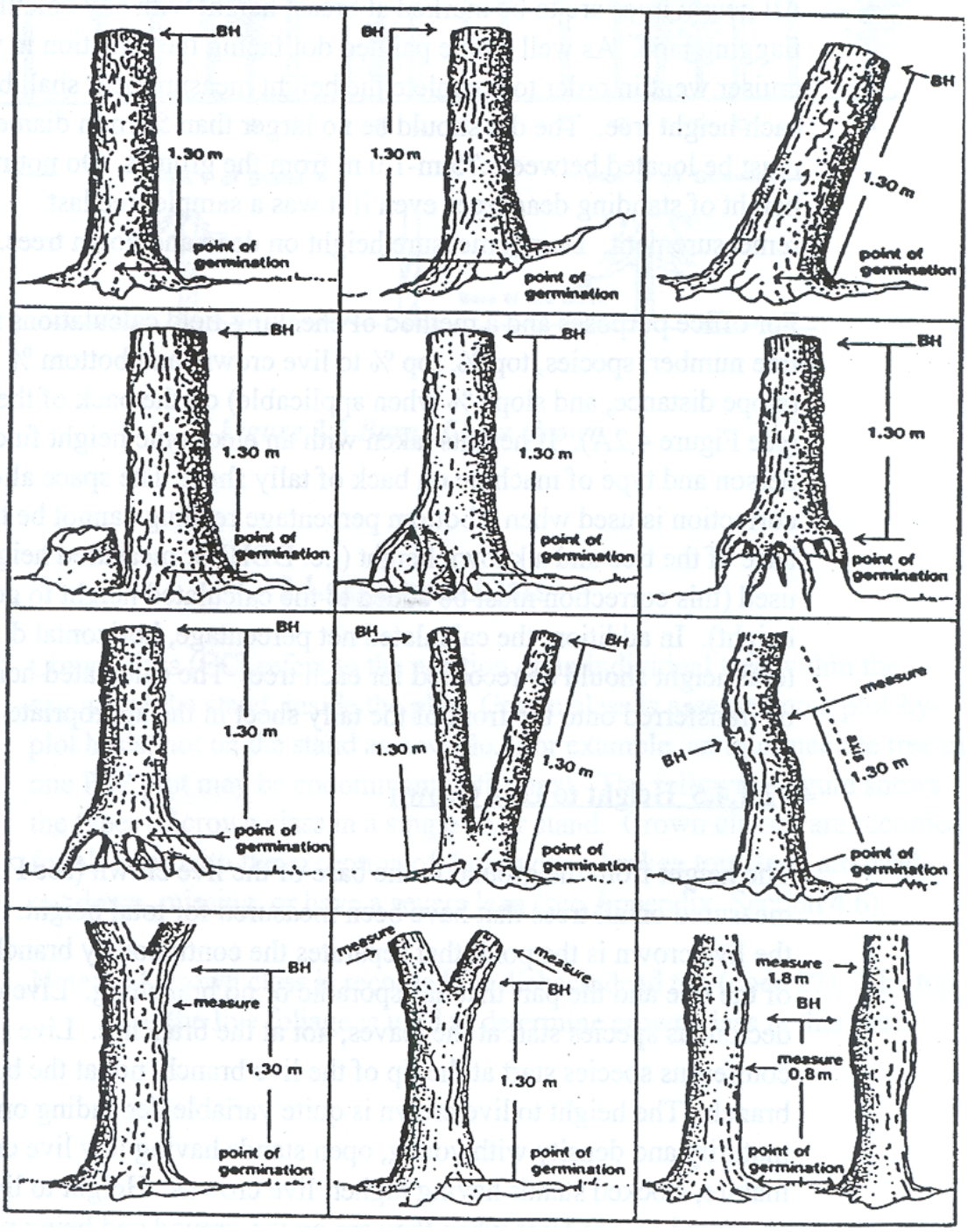


FIGURE 2.4 DETERMINING POINT OF GERMINATION AND BREAST HEIGHT

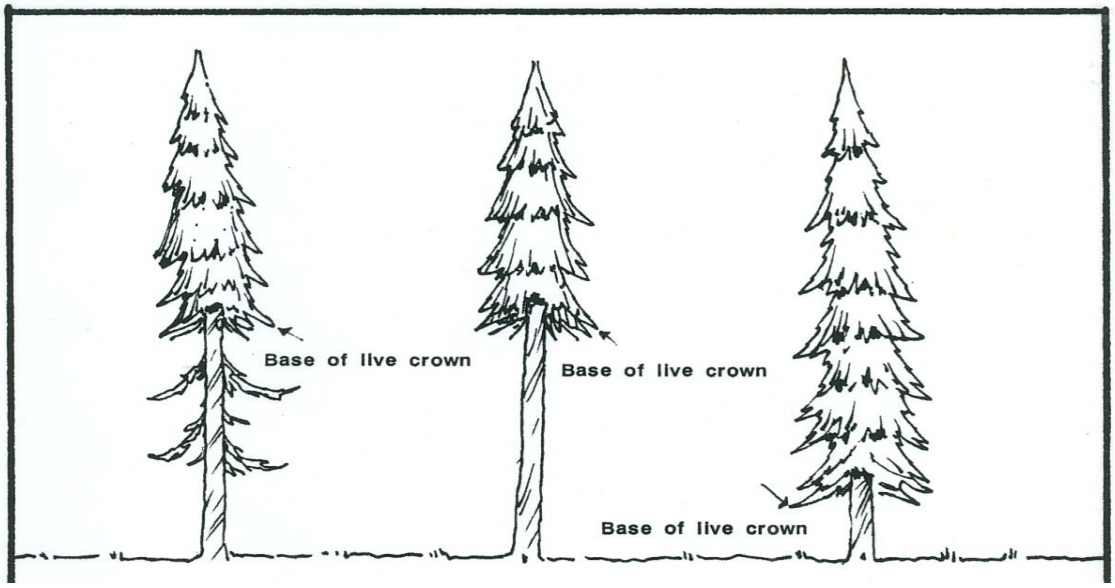


FIGURE 2.5 BASE OF LIVE CROWN

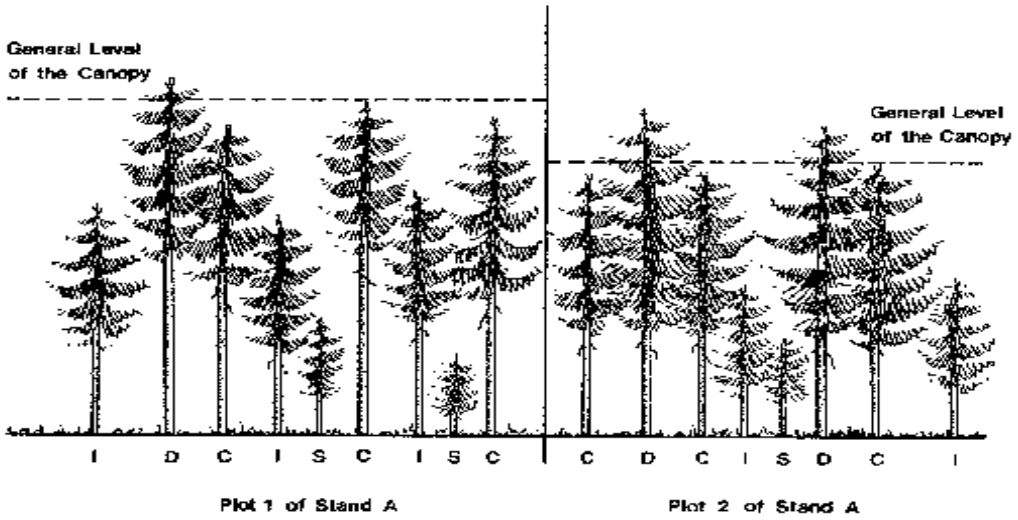


FIGURE 2.6 CROWN CLASS

Note: a crown class is recorded for dieback/dead top (code 16). The top of the live foliage is used to determine crown class in this case.

D – Dominant	**-crowns extend above the general level of the canopy.**
C – Codominant	**-crowns form the general level of canopy.**
I – Intermediate	**- crowns below but extending into the bottom of the general level of the canopy.**
S – Suppressed	**-crowns entirely below the general level of the canopy.**
O – Open grown	**-if the trees branches does not interact with another trees branches.**

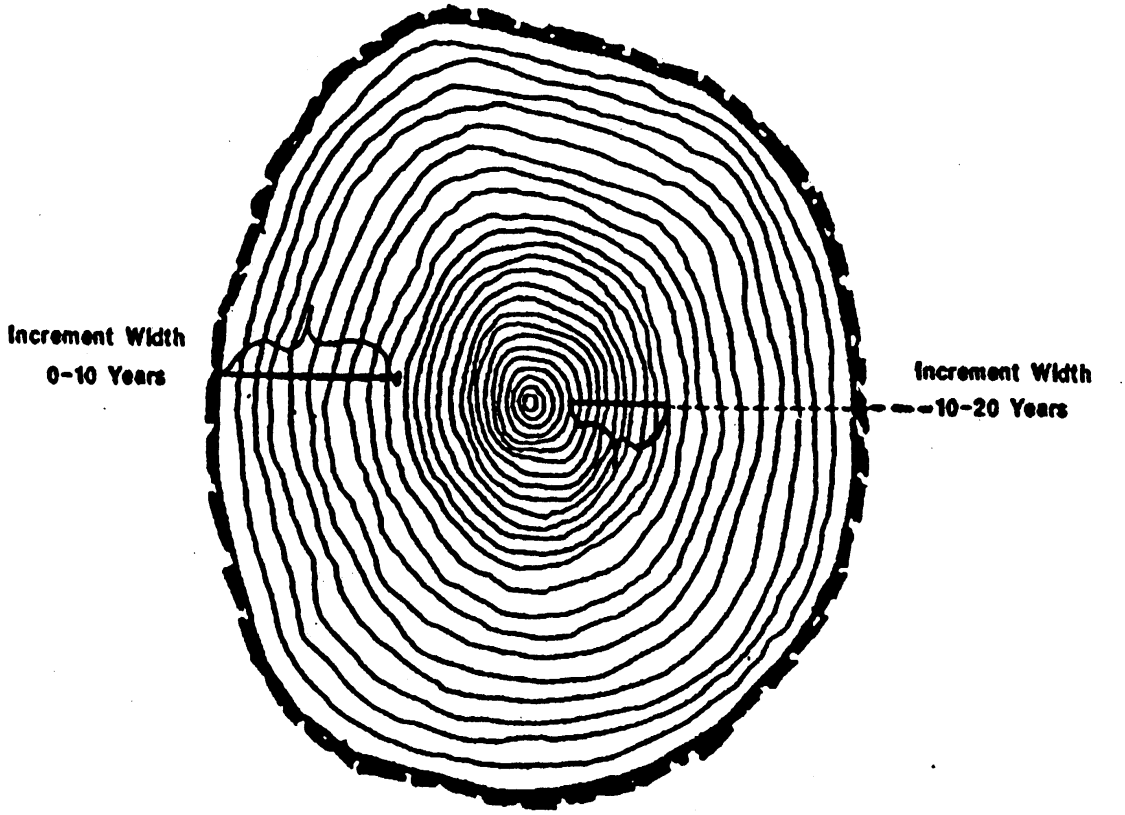


FIGURE 2.7 INCREMENT WIDTHS

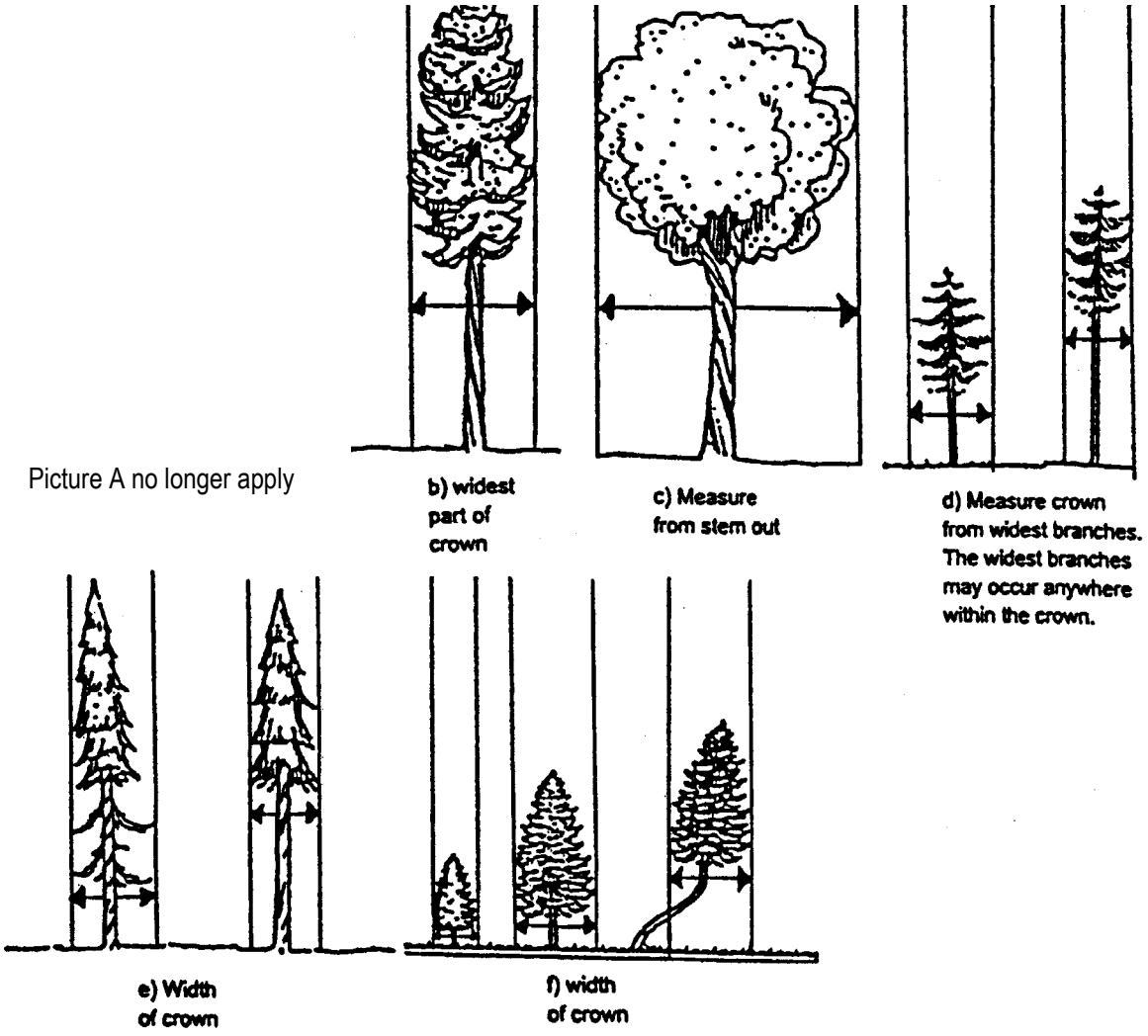


FIGURE 2.8 CROWN WIDTH MEASUREMENT

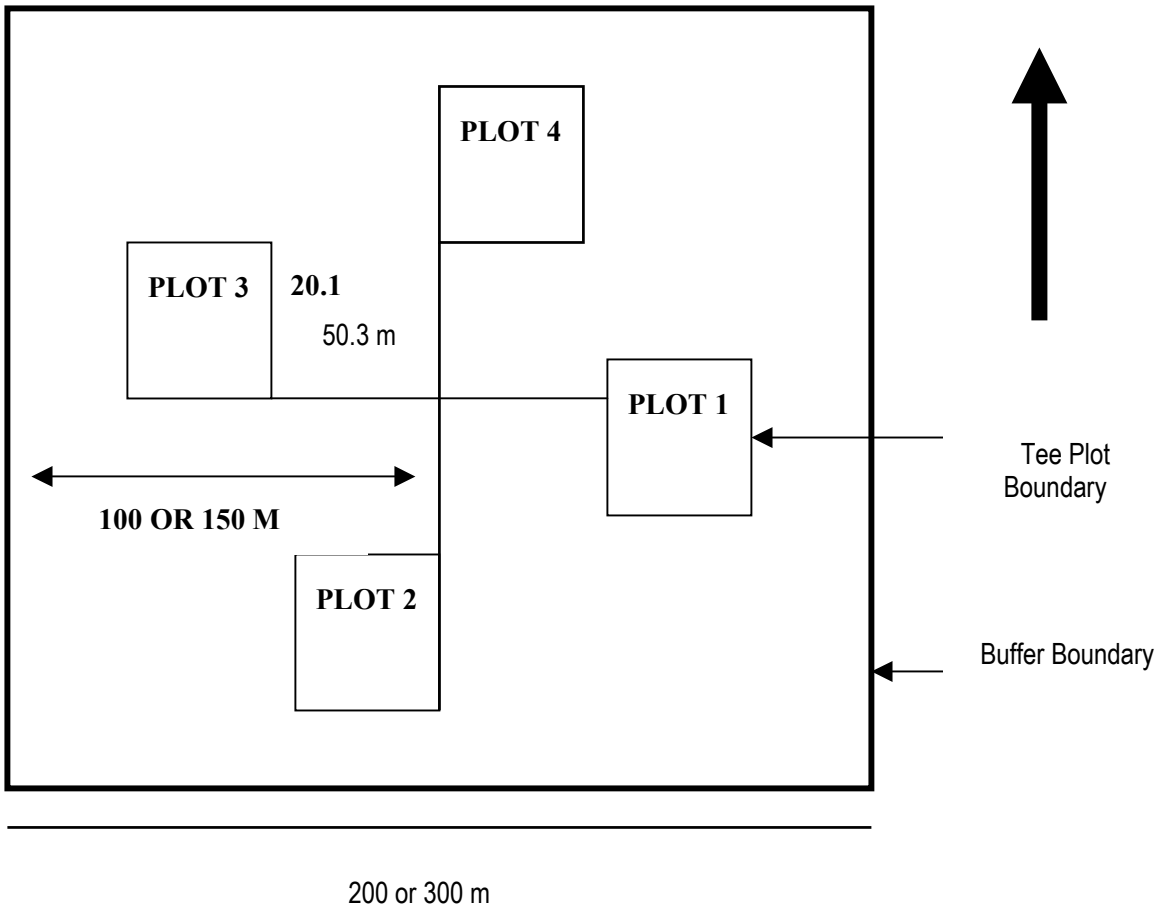


FIGURE 2.9 PRE-APRIL 1981 PLOT LAYOUT

FIGURE 2.10 GROUP PLOT MAINTENANCE FORM

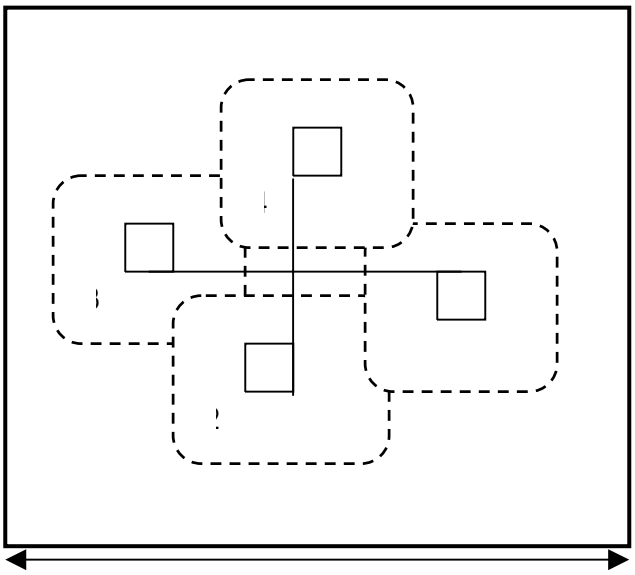
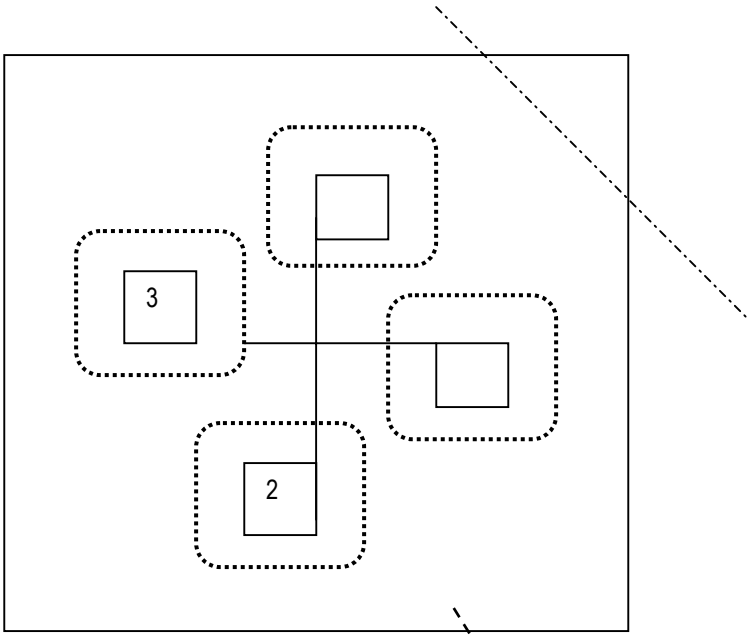
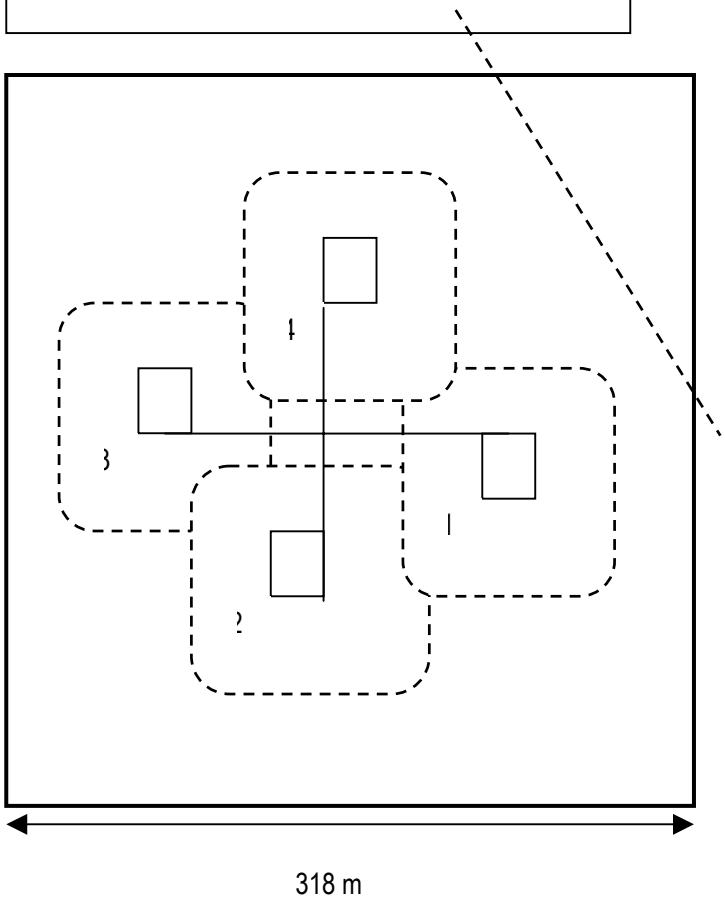


FIGURE 2.11 BUFFER DAMAGES AREA



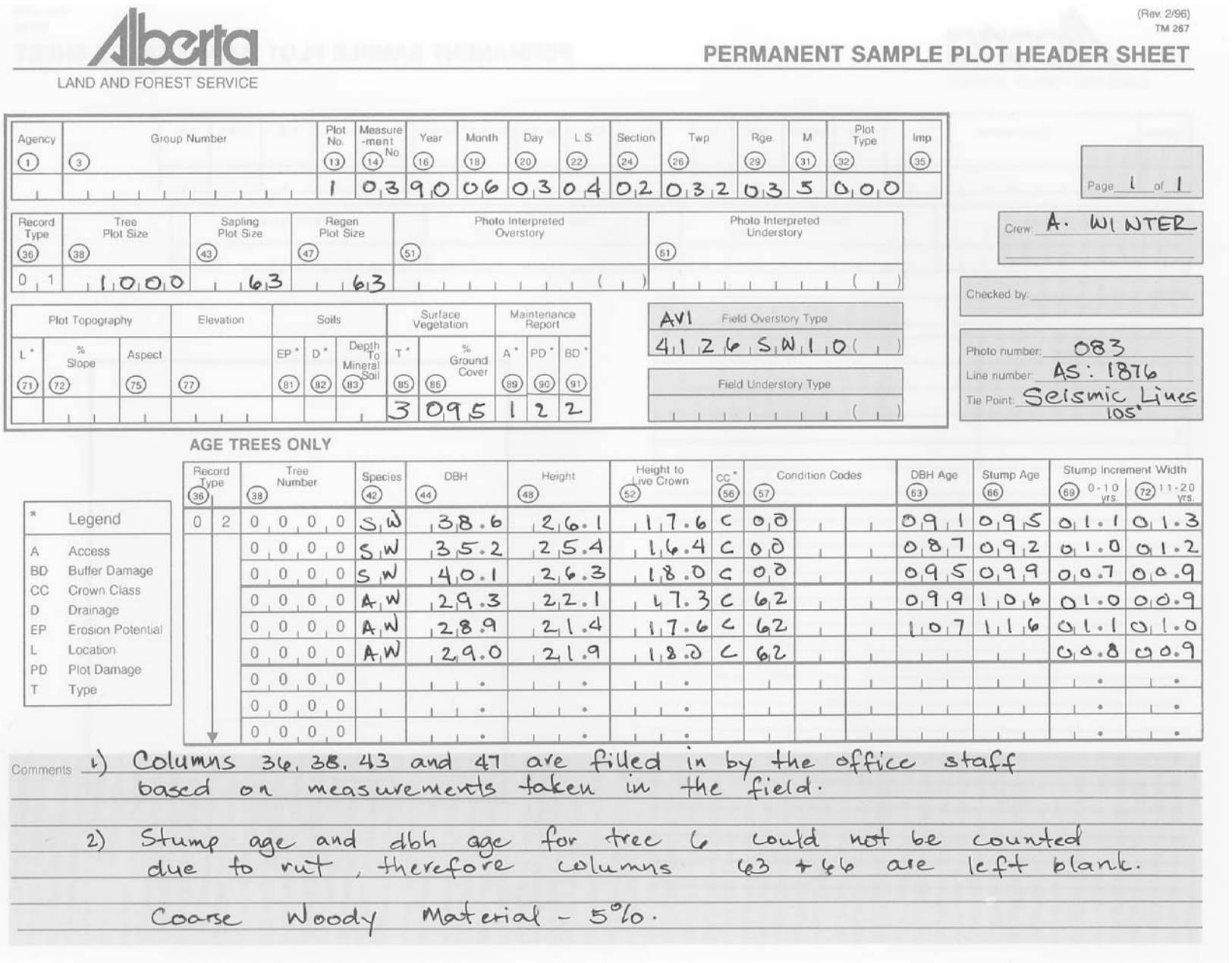
The seismic line, in this example does not come within 20m of any of the subplots. Therefore, all subplots would have a code 6 recorded for buffer damages.



The seismic line, in this example is within 20 m of subplots 1 and 4. For these two subplots, a code 3 (manmade damage) is recorded in the buffer damage space. Code 6 is recorded for subplots 2 and 3 as damage is not within those buffer damage zones.

318 m

FIGURE 2.12 EXAMPLES OF BUFFER DAMAGE



Alberta
LAND AND FOREST SERVICE

(Rev. 2/96)
TM 267

PERMANENT SAMPLE PLOT HEADER SHEET

Agency (1)	Group Number (3)	Plot No. (13)	Measurement No. (14)	Year (16)	Month (18)	Day (20)	L.S. (22)	Section (24)	Twp (26)	Rge (29)	M (31)	Plot Type (32)	Imp (35)
		1	03	90	06	03	04	02	032	03	5	000	

Record Type (36)	Tree Plot Size (38)	Sapling Plot Size (43)	Regen Plot Size (47)	Photo Interpreted Overstory (51)	Photo Interpreted Understory (51)
01	1000	6.3	6.3		

Plot Topography: L* (71)	% Slope (72)	Aspect (75)	Elevation (77)	Soils: EP* (81)	D* (82)	Depth To Mineral Soil (83)	Surface Vegetation: T* (85)	% Ground Cover (86)	Maintenance Report: A* (89)	PD* (90)	BD* (91)
							3	095	1	2	2

AVI Field Overstory Type: 41 26 SW 10

Field Understory Type:

Page 1 of 1

Crew: A. WINTER

Checked by:

Photo number: 083
Line number: AS: 1876
Tie Point: Seismic Lines 105'

AGE TREES ONLY

Record Type (36)	Tree Number (38)	Species (42)	DBH (44)	Height (48)	Height to Live Crown (52)	CC* (56)	Condition Codes (57)	DBH Age (63)	Stump Age (66)	Stump Increment Width: 0-10 yrs. (69)	11-20 yrs. (72)
02	0000	SW	38.6	26.1	17.6	C	00	091	095	01.1	01.3
	0000	SW	35.2	25.4	16.4	C	00	087	092	01.0	01.2
	0000	SW	40.1	26.3	18.0	C	00	095	099	00.7	00.9
	0000	AW	29.3	22.1	17.3	C	62	099	106	01.0	00.9
	0000	AW	28.9	21.4	17.6	C	62	107	116	01.1	01.0
	0000	AW	29.0	21.9	18.0	C	62			00.8	00.9
	0000										
	0000										
	0000										

*	Legend
A	Access
BD	Buffer Damage
CC	Crown Class
D	Drainage
EP	Erosion Potential
L	Location
PD	Plot Damage
T	Type

Comments 1) Columns 36, 38, 43 and 47 are filled in by the office staff based on measurements taken in the field.

2) Stump age and dbh age for tree 6 could not be counted due to rut, therefore columns 63 + 66 are left blank.

Coarse Woody Material - 5%.

FIGURE 2.13 DATA ENTRY ON PSP HEADER SHEET

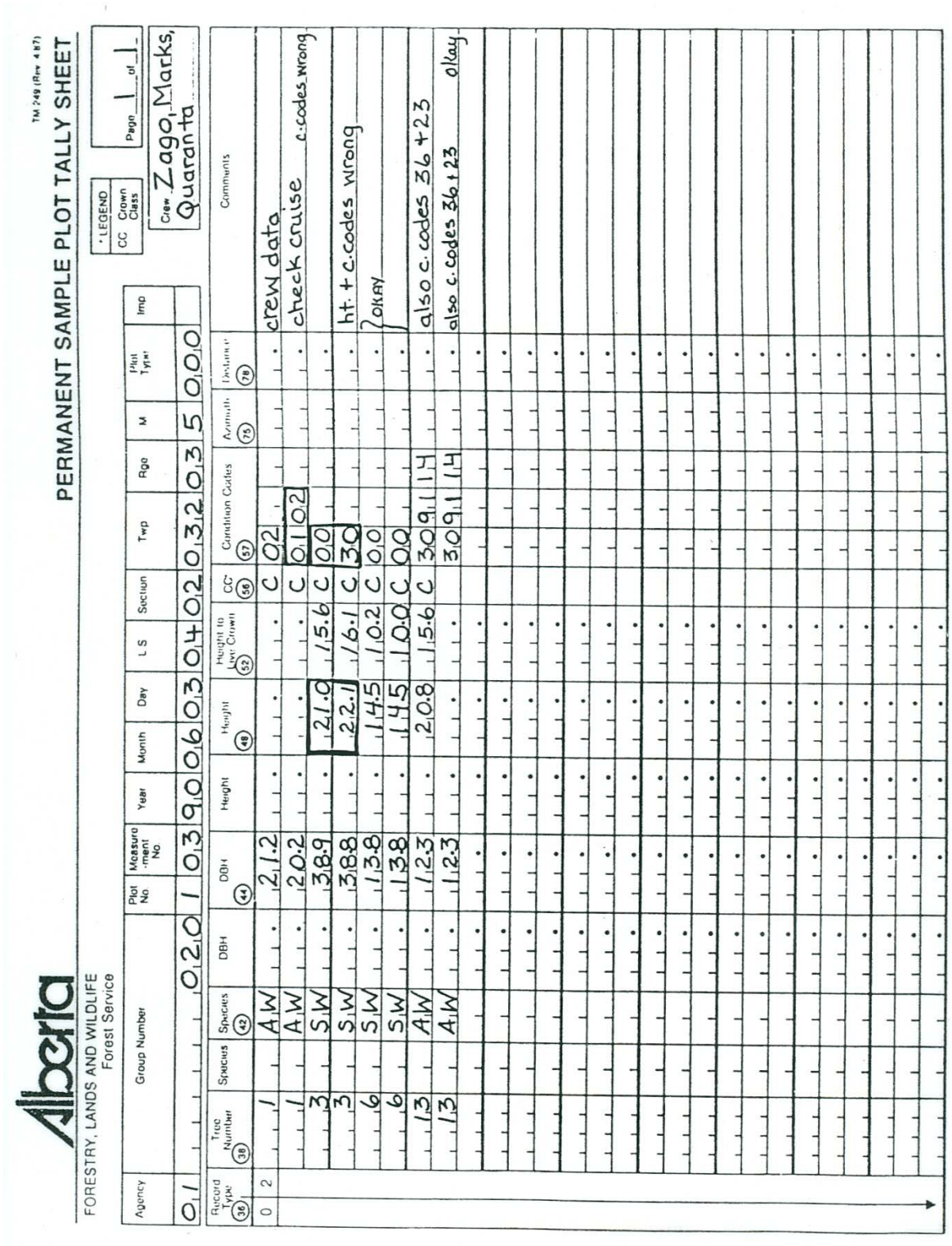


FIGURE 2.14 DATA ENTRY ON PSP TALLY SHEET

TM 261 (Rev. 2/93)

Alberta

ENVIRONMENTAL PROTECTION

REGENERATION TALLY SHEET

Page 3 of 3

Crew: Zago, Marks, Quaranta

Height Class 5 — 1.20 m
Height Class 4 — .90 m
Height Class 3 — .60 m
Height Class 2 — .30 m
Height Class 1 — .10 m
No Tally

Agency	Group Number	Plot No.	Measure-ment No.	Year	Month	Day	L.S.	Section	Twp	Range	M	Plot Type	Imp
01	0201	1	03	90	05	11	04	02	032	03	5	00.	

Record Type (36)	Tree Number (38)	Species (42)	Height Class 1 .10m - .29m	Total (1) (44)	Height Class 2 .30m - .59m	Total (2) (47)	Height Class 3 .60m - .89m	Total (3) (50)	Height Class 4 .90m - 1.19m	Total (4) (53)	Height Class 5 1.20m +	Total (5) (56)
03	9998	SW	: :	003								
03	9998	SB										
03	9998	FB										
03	9998	PL										
03	9998	AW			: :	004			H	008		
03	9998	BW										
03	9998	LT										
03	9998	FD									•	001
03	9998	PB										
03	9998											

FIGURE 2.15 DATA ENTRY ON REGENERATION TALLY SHEET

TM 249 (Rev 4 87)

Alberta

FORESTRY, LANDS AND WILDLIFE
Forest Service

PERMANENT SAMPLE PLOT TALLY SHEET

* LEGEND
CC Crown Class

Page 1 of 1

Crew Zago, Marks, Quaranta

Agency	Group Number	Plot No	Measurement No	Year	Month	Day	L S	Section	Twp	Rge	M	Plot Type	Imp
01	02	01	03	90	06	03	04	02	032	03	5	0.0	0

Record Type (36)	Tree Number (38)	Species (42)	DBH (44)	Height (48)	Height to Live Crown (52)	CC (56)	Condition Codes (57)	Azimuth (75)	Distance (78)	Comments
02	1	AW	21.2			C	02			crew data
	1	AW	20.2			C	01 02			check cruise c. codes wrong
	3	SW	38.9	21.0	15.6	C	00			
	3	SW	38.8	22.1	16.1	C	30			ht. + c. codes wrong
	6	SW	13.8	14.5	10.2	C	00			
	6	SW	13.8	14.5	10.0	C	00			okay
	13	AW	12.3	20.8	15.6	C	30 9 11 14			also c. codes 36 + 23
	13	AW	12.3				30 9 11 14			also c. codes 36 + 23 okay

FIGURE 3.1 PSP TREE TALLY CHECK SHEET

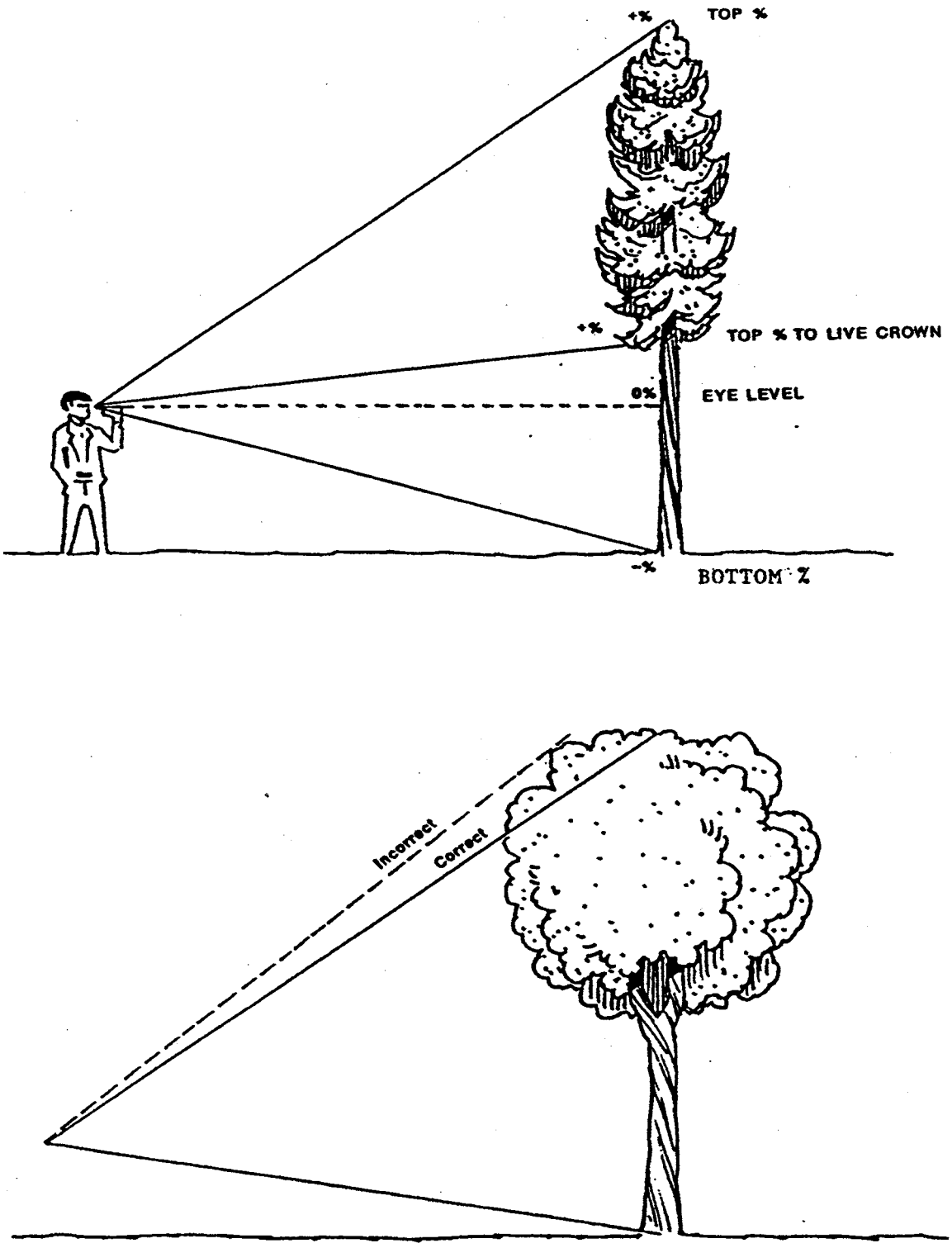


FIGURE 4.1 TREE HEIGHT MEASUREMENT

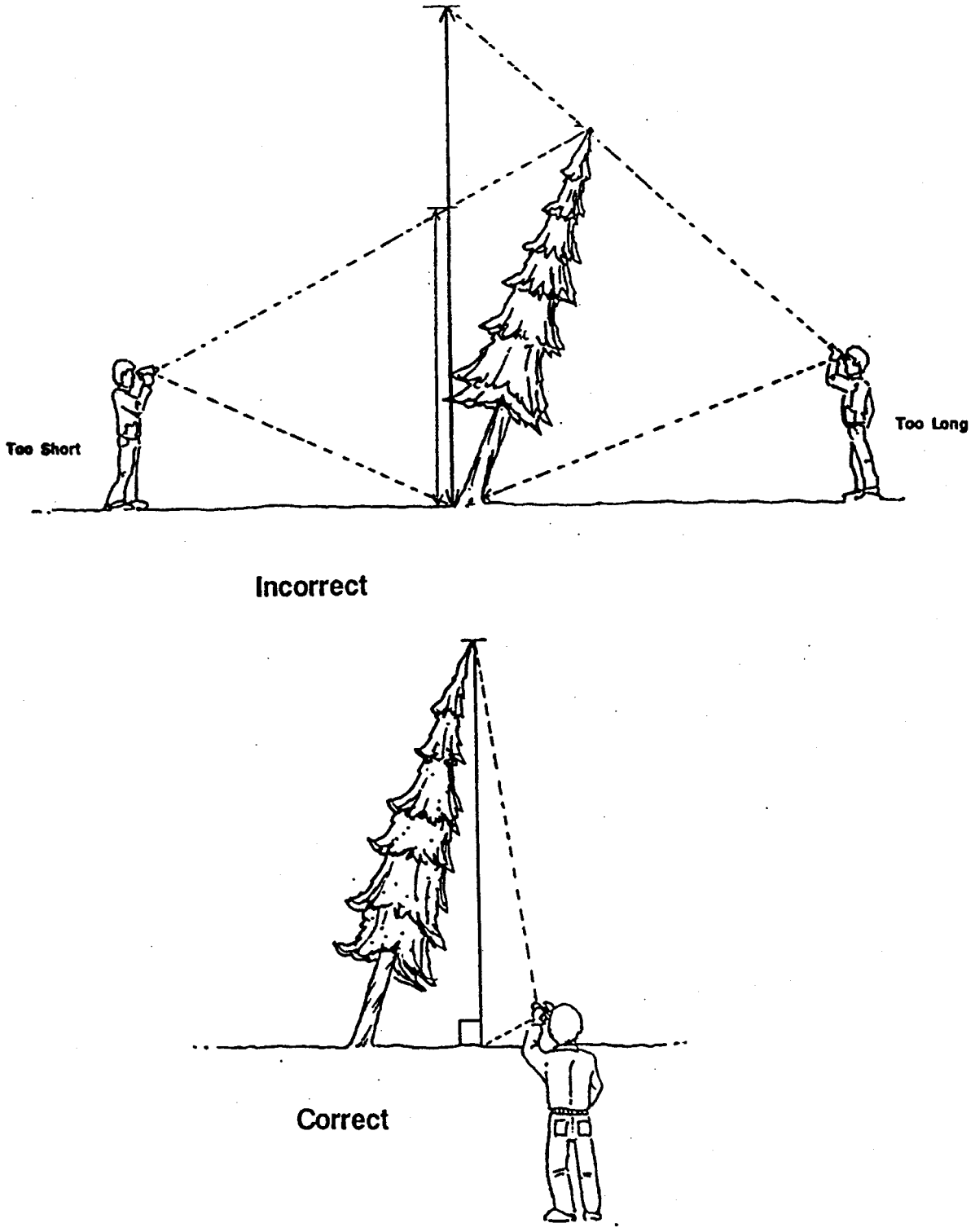
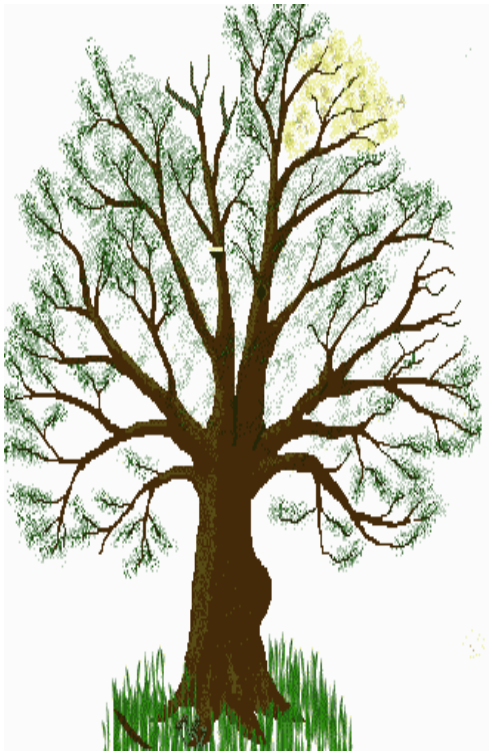


FIGURE 4.2 HEIGHT MEASUREMENT OF LEANING TREES

FIGURE 4.3 CONK AND BLIND CONKS

FIGURE 4.4 OPEN SCARS

FIGURE 4.5 LARGE BURL ON MAIN STEM



This tree would be considered a fork if fork occurred above the DBH

FIGURE 4.6 FORKS

FIGURE 4.7 PRONOUNCED CROOK

FIGURE 4.8 LEANING TREE

FIGURE 4.9 ATROPELLIS CANKER

FIGURE 4.10 WITCHES ON SPRUCE

FIGURE 4.11 MISTLETOE

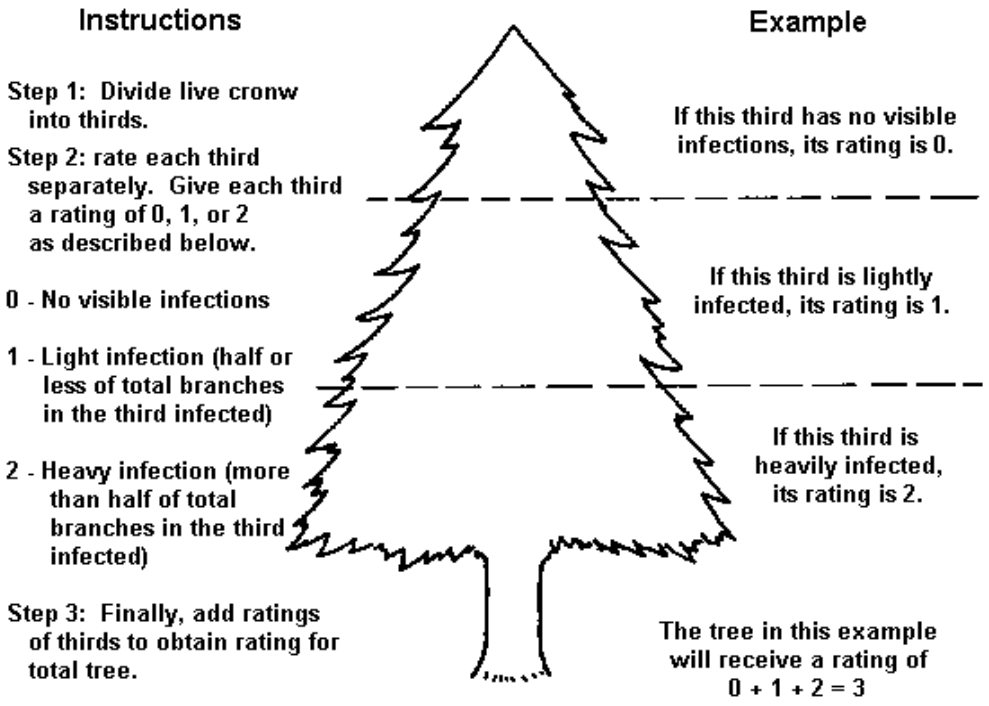


FIGURE 4.12 INSTRUCTIONS AND EXAMPLE OF THE USE OF THE 6 CLASS MISTLETOE RATING SYSTEM (HAWKSWORTH 1961, 1977)

CODES

91 One of the 1/3 sections has light infection (1) + other 2/3 have no visible infections.

92 Two of the 1/3 sections has light infection (10) + or one 1/3 section ahs a heavy infection only.

93 All three of the 1/3 sections has light infection (1) + or one 1/3 section has a heavy infection, one has a light infection + last 1/3 has no infection.

94 If total ratings = 4 then this code is used.

95 If total ratings = 5 then this code is used.

96 If total ratings = 6 then this code is used.

FIGURE 4.13 GENERIC WOODPECKER

FIGURE 4.14 YELLOWBELLIED SAPSUCKER FEEDING

FIGURE 4.15 SMALL MAMMAL FEEDING ON TREE BOLE

FIGURE 4.16 EXCAVATIONS BY WOODPECKERS

FIGURE 4.17 SMALL CAVITY

FIGURE 4.18 LARGE CAVITY

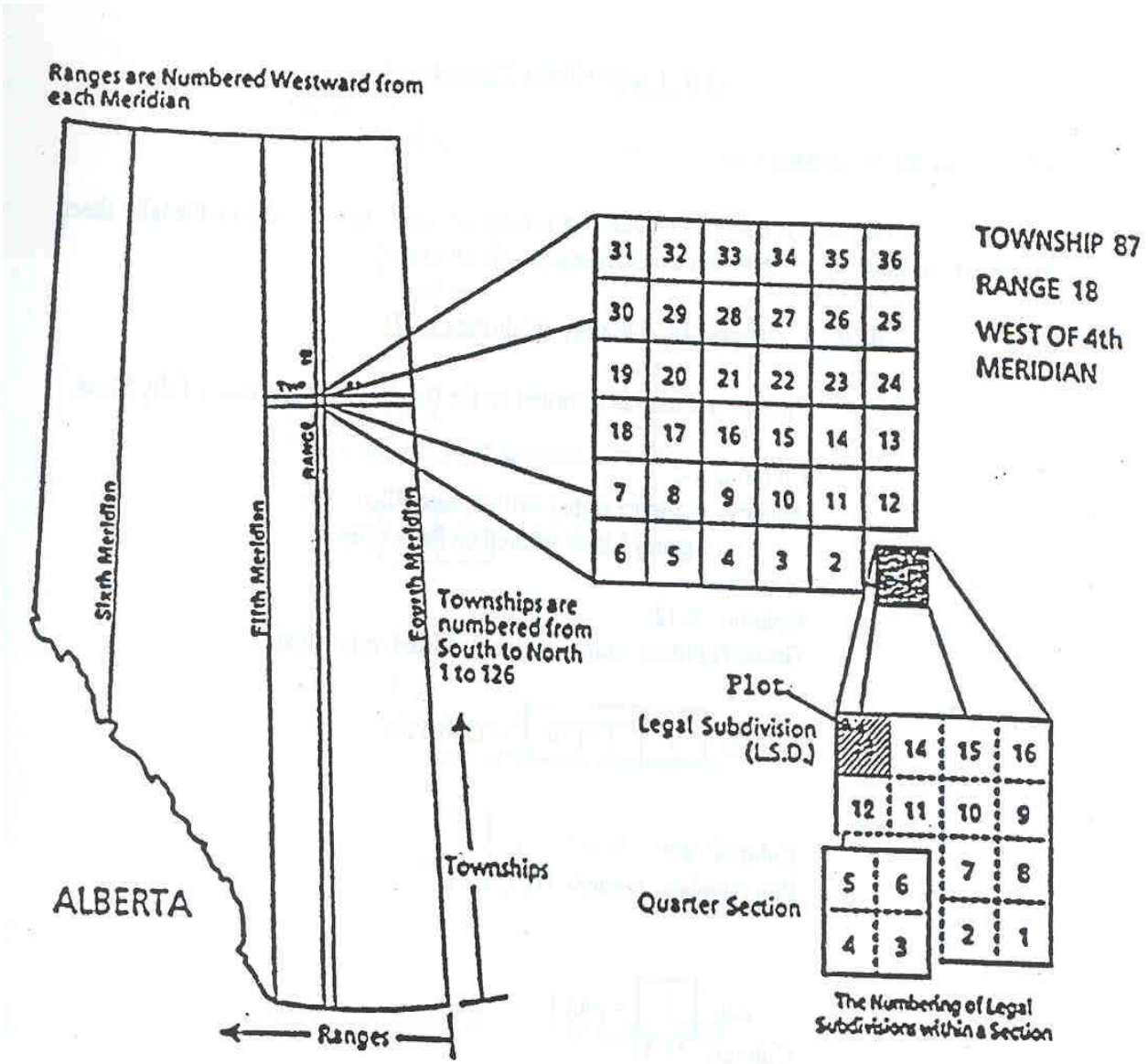


FIGURE 4.19 ALBERTA SURVEY SYSTEM[2]

[2] Alberta Bureau of Surveying and Mapping. 1986 Maps of Alberta Catalogue 1986-87. Government of Alberta ENR No. Ref 11 86 pp.iv.

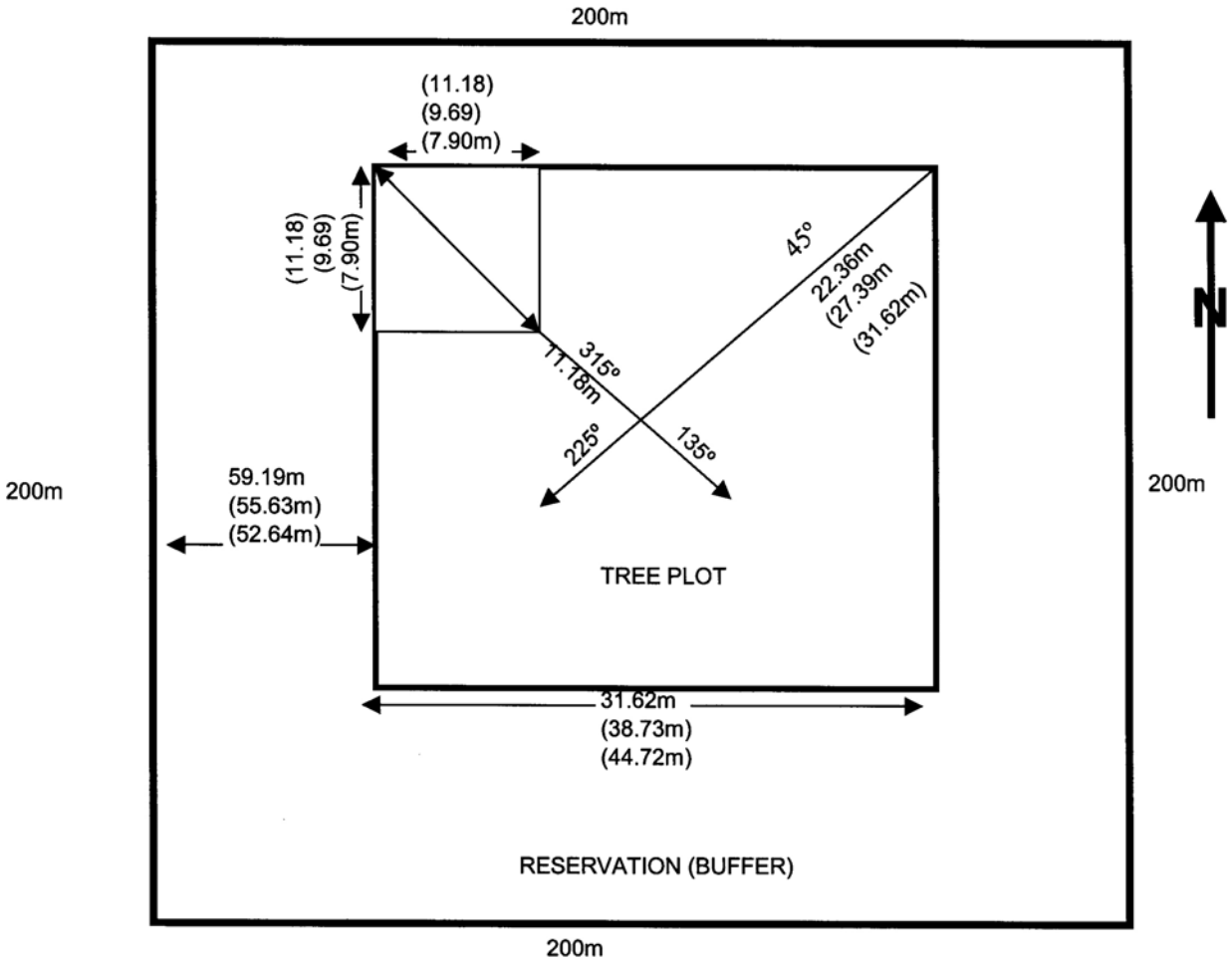


FIGURE 4.20 PLOT BOUNDARIES

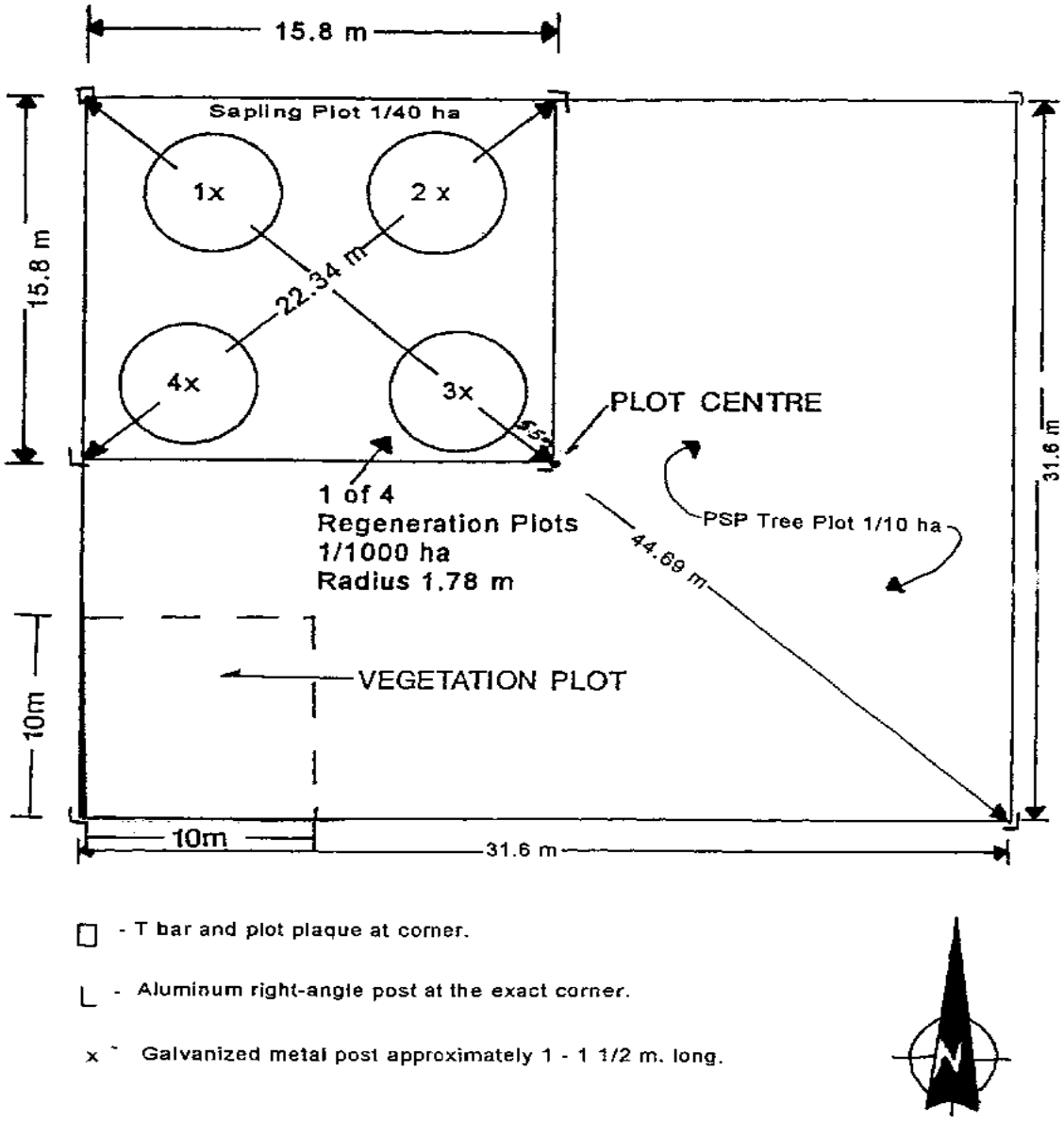


FIGURE 4.21 STAND DYNAMICS PLOT LAYOUT

FIGURE 4.22 PLOT MAINTENANCE REPORT

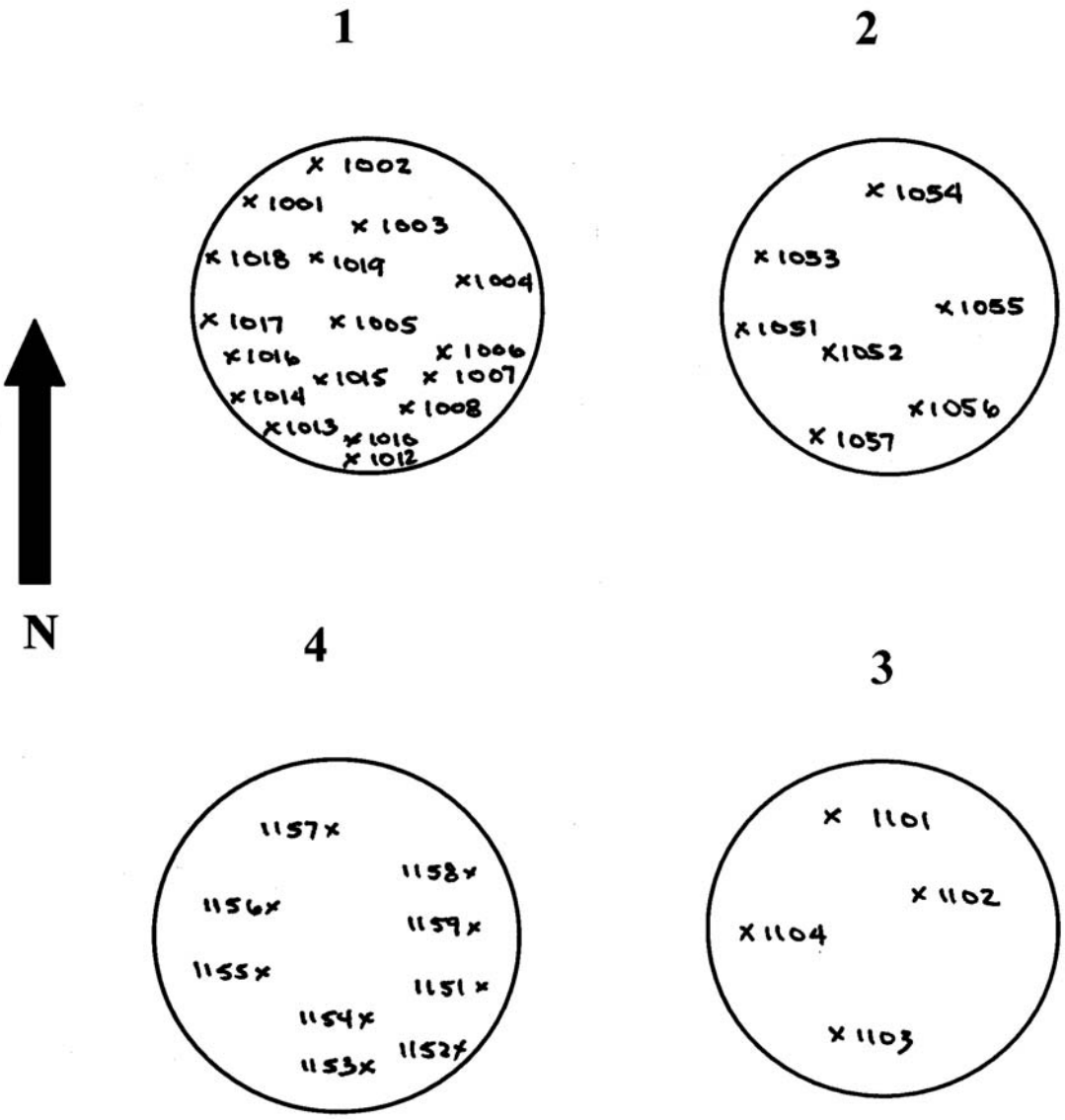


FIGURE 4.23 SEEDLING NUMBERING

FIGURE 4.24 STAND DYNAMICS TALLY SHEET (CSTM 101) RECORD TYPE 6

FIGURE 4.25 STAND DYNAMICS TALLY SHEET (CSTM 101) RECORD TYPE 7 (SAPLINGS)

FIGURE 4.26 STAND DYNAMICS TALLY SHEET (CSTM 101) RECORD TYPE 8 (TREE PLOT)

FIGURE 4.27 STAND DYNAMICS REGENERATION HEIGHT CLASS RECORD (CSTM 100) RECORD TYPE 61

CSTM 102

Alberta FORESTRY, LANDS AND WILDLIFE

STAND DYNAMICS VEGETATION

Record Type (1)	Group No. (3)	Plot No. (5)	Plot Type (8)	Year (10)	Month (12)	Day (14)
05	04	0210	1	90	08	22

Crew: JACK JONES, SALLY SMITH

Page 5 of 5

Parent Vegetation - R Type 4
Plot Vegetation - R Type 5

FIELD NAME (16)	TREES % (23)	TREES VIGOR	TALL SHRUBS % (26)	TALL SHRUBS VIGOR	LOW SHRUBS % (29)	LOW SHRUBS VIGOR	GROUND SHRUBS % (32)	GROUND SHRUBS VIGOR	TOTAL SHRUBS % (35)	TOTAL SHRUBS VIGOR	HERBS % (38)	HERBS VIGOR	GRASS % (41)	GRASS VIGOR	MOSS LICHEN % (44)	MOSS LICHEN VIGOR	TOTAL ALL % (47)	TOTAL ALL VIGOR
PINVICON	55	2																
POPVTRE			4	2														
POPUBAL			2	2														
BETUPAP			0	2														
ALNVICRI			1	2														
SALLISP			0	2														
RIBELAC					0	2												
LEDUGRO					1	2												
LINNBOR							1	2										
VACCMYR							1	2										
VACCVIT							1	2										
MALIAC AN											0	2						
EPILANG											4	2						
PYROSP P											0	2						
FRAGVIR											0	2						
ARALNUD											0	2						
DICRSP P															5	2		
PHEUSCH															2	2		
POLYJUN															8	2		
CARESP													8	2				

(1) Record Type — Comments

C	BROWSING & GRAZING -
C	DISEASE > 20%
C	OTHER -

FIGURE 4.28 VEGETATION DESCRIPTION FORM

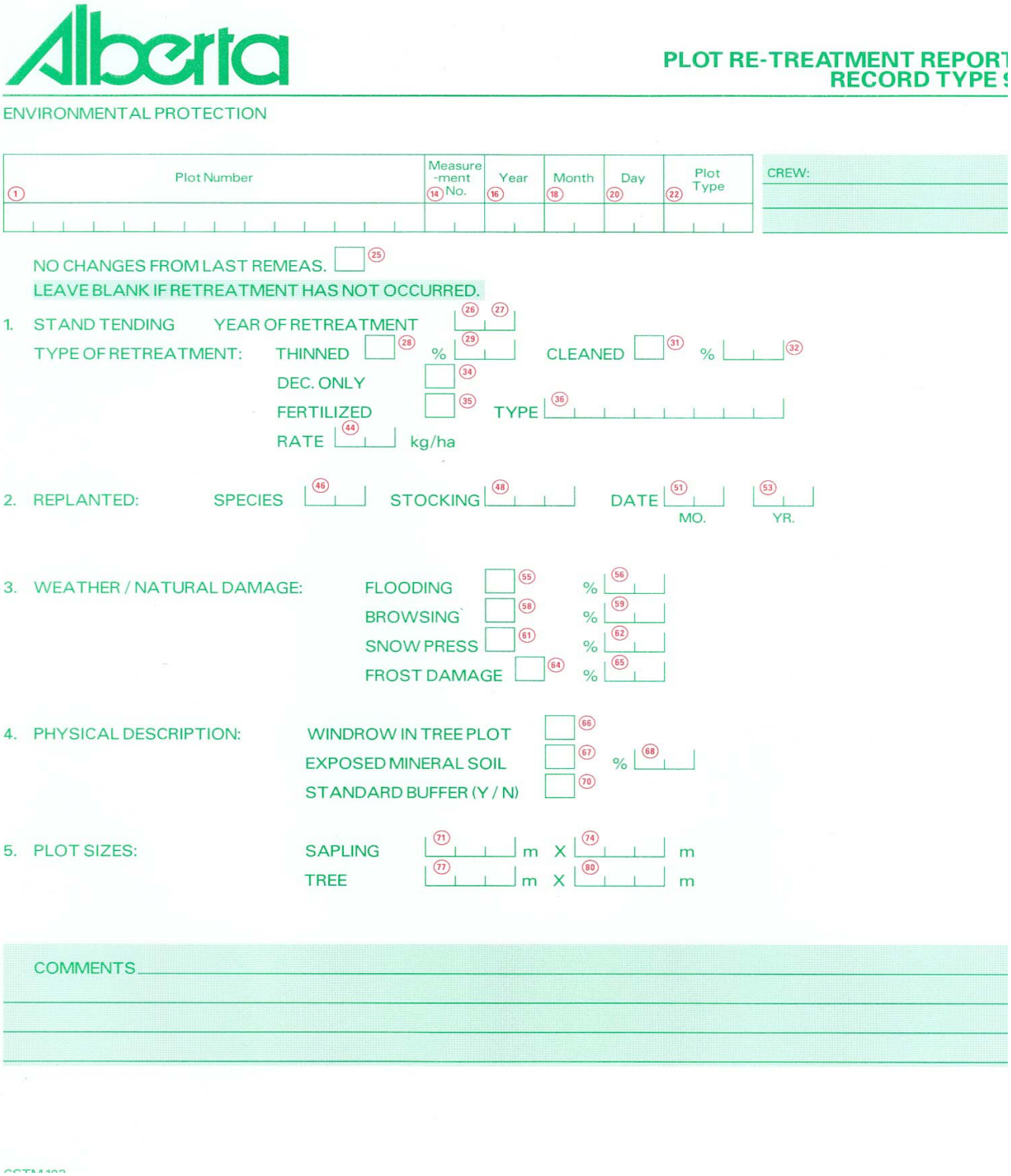


FIGURE 4.29 PLOT RETREATMENT REPORT (RECORD TYPE 9)

Record Type	Grp.	Plot #	Plot Type		Year	Month	Day	Meas. #				Page 1 of 3								
6	4	3			95	05	01					Crew Giday + Yusep								
Regen. Plot #	Tree #	Sp.	Tree Type	Byear	HT1	Byear + Year	1983 HT	1984 HT	1985 HT	1986 HT	1987 HT	1988 HT	1989 HT	1990 HT	1991 HT	1992 HT	1993 HT	1994 HT	1995 HT	1996 HT
1	1001	PL	A	85	30	90								42	55	62	75	91	105	121
1	1008	PL	I	87	2	-							4	10	18	25	40	58	74	102
1	1010	SW	A	71	54	78	64	72	70	91	104	121	132	145	161	180	191	205	228	234
	CC																			
							1994 HT	1995 HT	1996 HT											
							252	286	295											
1	1015	AW	I	80									457							
																	1979 HT	1984 HT	1991 HT	1996HT
2	1051	PL	A	79	25	83		50	101	155	205	280	370	450	490	550	720	840	910	980
2	1058	PL	I	89	20	92														35
2	1062	PL	I	90	18	92														24
2	1074	PL	I	90	25	93												32	38	45
2	1082	PL	I	89	-	-														62
2	1091	PL	I	90	-	-														42
7	2095	PL	I	84	15	87						25	35	45	62	88	101	150	240	355
7	2110	PL	I	85	18	88							30	42	55	65	91	121	201	305
7	2004	PL	I	85	22	88					40	52	65	81	111	155	210	310	410	490
7	2010	PL	I	85																390

FIGURE 4.30 STAND DYNAMICS TREE AGE TALLY SHEET

FIGURE 4.31 DIE BACK