

3. Net Accumulation of Snow Measured (in 1974 - 1975) by Stake Method

Kazuhide SATOW*

Observers: Kazuhide SATOW, Masayuki INOUE, Takashi IKARASHI
and Okitsugu WATANABE

3.1. Introduction

The net accumulation of snow (cm in depth) was measured by means of stake method along the oversnow traverse routes of JARE-15 in 1974 - 1975. Table 1 shows stations (or routes) and periods of measurement. For the position and elevation of stations in Tables 2 to 9, see the JARE Data Reports, No. 17 (Glaciology) (Shimizu et al., 1972) and No. 28 (Glaciology) (Naruse and Yokoyama, 1975).

3.2. Net accumulation

3.2.1. Along Routes S, H and Z (Table 4)

The net accumulation from January 1974 to January/February 1975 from S 16 to Mizuho Camp (via Routes S, H and Z) is shown in Fig. 1 against the surface elevation.

Fig. 2 shows the net accumulation for the winter season (from January to September 1974) and that for the summer season (from September 1974 to January/February 1975).

3.2.2. Along Route W and at Y 200

Snow stakes set on Route W and at Y 200 in 1970 - 1971 were remeasured in 1974 - 1975. Results are given in Tables 5 and 6.

3.2.3. Net accumulation at stake-farms

1) 36-stake farm

A 36-stake farm was established at S 16, S 30, H 68, H 180, S 122, Z 40 and Mizuho Camp in 1971 by JARE-12 (Yamada et al., 1975). In 1974, several stakes at S 16 leaned or fell down, and all stakes at S 30 were buried in the snow. The results of the measurement are summarized in Table 7.

2) 200-stake farm

A 200-stake farm was established at S 16, S 122 and Mizuho Camp in 1972 by JARE-13 (Yamada et al., 1975), but most of the stakes at S 16 almost fell down or were missing in 1974. Fig. 3 shows the configuration of the 200-stake farm at S 122 and Mizuho Camp. The results of net accumulation measurements are shown in Tables 8 and 9. The annual net accumulation averaged over the prevailing wind direction, Stake No. 1 to 100 (or 101), was -2.2 cm and 2.0 cm at S 122 and Mizuho Camp, respectively, while over the cross-wind direction, Stake No. 101 (or 102) to 200 (or 202), 16.1 cm and 0.9 cm, respectively.

* Disaster Prevention Research Institute, Kyoto University, Uji 611.

3.2.4. Net accumulation at I 485

Several fuel drums left at Station I 485 by the Soviet traverse in February 1967 (Petrov, 1971) were found on 8 November 1974. These drums were buried in the snow 90.5 cm deep, which suggests the average annual net accumulation of 11.7 cm.

References

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- Shimizu, H., Omoto, K. and Yoshimura, A. (1972): Position of stations, surface elevation and thickness of the ice sheet, and snow temperature at 10 m depth in the Mizuho Plateau - West Enderby Land area, East Antarctica, 1969 - 1971. JARE Data Rep., 17 (Glaciol.), 12-37.
- Yamada, T., Narita, H., Okuhira, F., Fukutani, H., Fujisawa, I. and Shiratsuchi, T. (1975): Net accumulation of snow by stake measurements in Sôya Coast - Mizuho Plateau in 1971 - 1973. JARE Data Rep., 27 (Glaciol.), 10-67.

Table 1. Stations and observation periods of net accumulation in 1974 - 1975.

Station or Route	Periods of observation	Table No.
S31 - S121	January 1974 - February 1975	2
Traverse survey stations (Route Z)	January 1974 - February 1975	3
Route S - H - Z (S16-H3-S122-Z102)	January 1974 - January/February 1975 (with 5 breakdown periods)	4
Route W	January 1971 - December 1974/ January 1975	5
Y200	November 1970 - October 1975	6
S16, H68, H180, S122, Z40 and Mizuho Camp (36-stake farm)	January 1973 - January/February 1975 (with 4 breakdown periods)	7
S122 (200-stake farm)	January 1974 - February 1975 (with 5 breakdown periods)	8
Mizuho Camp (200-stake farm)	November 1973 - February 1975 (with 6 breakdown periods)	9

Table 2. Net accumulation at S31 - S121 (unit: cm in depth).

Station No.	Jan.1974 -Feb.1975 (376-377 days)	Station No.	Jan.1974 -Feb.1975 (376-377 days)	Station No.	Jan. 1974 -Feb.1975 (376-377 days)
S 31	43	S 61	61	S 91	126
32	53	62	51	92	23
33	29	63	49	93	22
34	62	64	43	94	29
35	68	65	37	95	15
36	43	66	47	96	14
37	45	67	48	97	36
38	60	68	27	98	24
39	51	69	88	99	7
40	51	70	64	100	12
41	35	71	66	101	25
42	45	72	40	102	24
43	59	73	30	103	1
44	36	74	41	104	6
45	50	75	32	105	23
46	43	76	25	106	37
47	50	77	36	107	16
48	24	78	34	108	- 1
49	34	79	18	109	23
50	62	80	26	110	38
51	45	81	35	111	14
52	48	82	36	112	25
53	31	83	21	113	- 4
54	45	84	- 1	114	18
55	32	85	24	115	- 8
56	70	86	42	116	- 4
57	83	87	1	117	- 1
58	46	88	23	118	- 8
59	46	89	15	119	- 9
60	30	90	18	120	
				121	- 2

Table 3. Net accumulation at traverse survey stations along Route Z (cm in depth).

Station No.	Jan.1974 - Feb.1975 (376-377 days)	Station No.	Jan.1974 - Feb.1975 (376-377 days)
S 122	- 98	Z 42-1	- 4
Z 2	6	46-1	- 4
4-1	- 3	53-1	- 4
6-1		60-1	6
8	6	66	- 5
11-1	0	70	- 4
15-1	15	73-1	- 8
19	- 7	75	4
22-1		79-2	- 8
26	- 7	81-2	- 8
29	- 6	85	13
31	- 5	88-1	22
33	- 5	90	- 4
35	- 6	92	- 4
37	- 4	94	- 12
38-1	- 4	97-2	- 4
39-1	- 6	101	- 18

Table 4. Net accumulation along Routes S-H-Z (cm in depth).

Period Station No.	Jan. - Mar. 1974 (37-45 days)	Mar. - May 1974 (69-80 days)	May - Sep. 1974 (105-107 days)	Sep. - Oct. 1974 (25-36 days)	Oct. 1974 - Jan. 1975 (98-102 days)	Oct. 1974 - Feb. 1975 (119-129 days)	Jan. 1974 - Feb. 1975 (351- 377 days)
S 16			17	-2			
17	78	-10	-6	11			56
18	-56		23	18			-25
19		-6	8	0			-26
20	18	-46		62			-64
21	0	12	18	-2			20
22	-5	34	4	16			34
23	-6	40	-11		-10		33
24	-87	38	18	8		-6	-29
25	-22	-22	-3	3		25	-19
26	-18	36	5	14		-1	36
27	5	28	3	6		-8	34
28	-46	20	-2	2		2	-24
29	-85	45	3	6		-9	-40
30	4	6	26	10		8	54
H 3	0	31	3	8	-2		40
6	18						
9		27	10	8	0		
12	5						
15		51	2	22	-8		

Period Station No.	Jan.- Mar. 1974 (37-45 days)	Mar. - May 1974 (69-80 days)	May - Sep. 1974 (105-107 days)	Sep. - Oct. 1974 (25-36 days)	Oct. 1974- Jan. 1975 (98-102 days)	Oct. 1974- Feb. 1975 (119-129 days)	Jan. 1974- Feb. 1975 (351-377 days)
H 18	16						
21		52	0	8	-6		
24	6						
27		30	17	6	-1		
30	4						
35		-52	2	2	-2		
42		0	2	4	-10		
45	-1						
48		20	10	11	-9		
51	10						
54		39	← 8 →		-2		
57	-1						
60		38	6	11	-9		
62	13						
64		42	6		1		
66	-1						
68		-28	52	9	-25		
70	-1						
72		← 67 →		13	-9		
74	-1						
76	← 19 →		10	0	-4		25
80	1	14	16	11	-3		39
84		13	10	2	-7		
88	-1	20	10	11	-8		32
92	-1	25	-1	6	12		41
96	2	19	0	10	-5		26
100	7	24	4	4	1		40
104	0	-44	55	10	-8		13
108	16	-1	11	2	-2		26
112	12	9	5	-1	-3		22
116	7	30	15	4	-7		49
120	2	7	22	-1	-7		23
124	0	0	15	0	-1		14
128	0	6	6	14	-2		24
132	22	50	-3	1	-10		60
136	2	0	14	3	4		23
140	4	6	11	0	0		21
144	0	22	-4	5	-5		18
148		5	19	0	-4		
152		6	1	-1	3		
156	-1	0	10	5	2		16
160	15	9	1	0	2		27
164	3	8	20	4	-7		28
168	3	21	7	4	-1		34
172	1	10	9	-1	-2		17
176	0	19	11	0	-11		19
180	3	9	7	1	0		20
184	3	18	0	0	2		23
188		20	-2	6	-8		
192	14	10	10	2	0		36
194	8						
196	10	18	2	10	-3		37
198	1						

Period Station No.	Jan.- Mar. 1974 (37-45days)	Mar.- May 1974 (69-80days)	May - Sep. 1974 (105-107days)	Sep.- Oct. 1974 (25-36days)	Oct. 1974- Jan. 1975 (98-102days)	Oct. 1974- Feb. 1975 (119-129days)	Jan. 1974- Jan./Feb. 1975 (351-377days)
H 200	14	3	13	2	-6		26
204	23	4	0	4	-6		25
208	6	16	0	-1	9		30
212	0	← 12 →		7	-1		18
214	-2						
216		14	2	6	0		
218	0						
220		0	14	5	-3		
222	0						
224		9	4	4	-1		
228		-2	3	3	-3		
230	34						
232		26	0	1	-1		
234	-1						
236		10	0	0	3		
238	0						
240		8	8	8	-9		
244		-36	0	10	-13		
248		24	0	14	-15		
250	1						
252		4	20	0	-4		
254	4						
256		22	0	8	0		
258	-2						
260		22	0	0	4		
262	0						
264		16	17	2	-4		
266	3						
268		18	17	3	-10		
270	4						
272		12	23	13	-13		
274	17						
276		2	5	15	-4		
278	2						
280		14	24	2	-11		
282	0						
284		11	0	4	-8		
286	0						
288		1	8	18	-4		
293		14	7	12	-16		
297		0	1	0	-4		
301		18	6	-1	-4		
S 122	0	-1	1	0	← 0 →		0
Z 2	7	9	1	18	← -10 →		25
4	-2	0	2	-1	← -7 →		-8
6	1	0	0	-1	← -6 →		-6
8	-2	45	-6	1	← -9 →		29
10	4	9	0	0	← -6 →		7
12	0	2	-2	20	← -16 →		4
14	1	8	12	8	← -8 →		21
16	-1	0	1	0	← -8 →		-8

Period Station No.	Jan.- Mar. 1974 (37-45 days)	Mar.- May 1974 (69-80 days)	May - Sep. 1974 (105-107 days)	Sep.- Oct. 1974 (25-36 days)	Oct. 1974- Jan. 1975 (98-102 days)	Oct. 1974- Feb. 1975 (119-129 days)	Jan. 1974- Jan./Feb. 1975 (351-377 days)	
Z 18	0	0	1	0	←	→ -7	-6	
20	0	42	-12	2	←	→ -11	21	
22	0	15	2	4	←	→ -2	19	
24	0	9	-2	0	←	→ 0	7	
26	←	2	→	1	0	←	→ -8	-5
28	0	0	0	1	←	→ -6	-5	
30	13	10	0	10	←	→ -8	25	
32	-2	0	2	0	←	→ -6	-6	
34	←	-13	→	2	0	←	→ -6	-17
36	1	2	1	0	←	→ 1	5	
38	0	1	0	0	←	→ -2	-1	
40	-1	0	0	0	←	→ -6	-7	
42	-1	0	1	-4	←	→ -3	-7	
44	51	-53	1	18	←	→		
46		0	1	0	←	→ -5		
48	5	4	-6	6	←	→		
50	-1	←	20	→	-1	←	→ -9	9
52	0							
54		9	16	0	←	→ -8		
56	1							
58		0	-2	2	←	→ 7		
60	-2							
62	-1	3	18	9	←	→ -5	24	
66	-10	0	1	0	←	→ -6	-15	
70	-2	24	-23	-1	←	→ -4	-6	
72		0	1	-1	←	→ 12		
74	0	-2	3	0	←	→ -4	-3	
76		28	-7	0	←	→ -33		
78		2	1	-2	←	→ -3		
80	0	-2	←	0	→	←	→ -6	-8
82	-2	←	39	→	1	←	→ -4	34
84	-1	16	2	0	←	→ -5	12	
86	1	-1	28	←	-26	→	2	
88	0	21	←	-7	→		14	
90	12	10	1	-1	←	→ 0	22	
92	7	10	-7	1	←	→ -6	5	
94	-3	6	2	7	←	→ -9	3	
96	-1	←	2	→	2	←	→ 8	11
98	-1	18	-18	0	←	→ -5	-6	
100	-2	24	2	-10	←	→ -2	12	
102	-2	1	-1	1	←	→ -6	-7	

Table 5. Net accumulation along Route W (cm in depth).

Station No.	Jan. 1971 - Dec. 1974/Jan. 1975 (4 years)
W 250	158
255	157
260	115
325	43
330	127
335	11
340	65
350	68
355	52
370	109
375	26

Table 6. Net accumulation at Y 200 (cm in depth).

Stake No.	Nov. 27, 1970 - Oct. 26, 1974 (4 years)
(1)	91
(2)	113
(3)	98
(4)	97
(5)	116
Mean	103

Table 7. Net accumulation of 36-stake farm at S 16, H 68, H 180, S 122, Z 40 and Mizuho Camp (cm in depth).

Period Stake No.	Jan. 29, 1973- Apr. 26, 1974 (452 days)	Apr. 26 - May 26, 1974 (30 days)	May 26 - Sep. 9, 1974 (106 days)	Sep. 9 - Oct. 4, 1974 (25 days)	Oct. 4, 1974- Feb. 11, 1975 (130 days)	Apr. 26, 1974- Feb. 11, 1975 (291 days)
S16 I-1						
2	12	1	-2	0	-15	-16
3						
4						
5						
6	20	17	2	-5	-19	-5
II-1	28	-4	5	0	-15	-14
2						
3	21	-1	1	1	-12	-11
4						
5	-5	0	4	6	-20	-10
6	4	0	2	5	-13	-6
III-1	21	7	4	-1	-18	-8
2	38	-1	1	0	-6	-6
3	35	-2	2	4	-17	-13
4	25	-8	10	0	-16	-14
5						
6	3	0	10	-1	-19	-10
IV-1	7	-2	10	1	-17	-8
2	4	0	4	← -6 →		-2
3	19	0	12	1	-19	-6
4	12	-2	23	-4	-20	-3
5	10	15	2	0	-15	2
6						
V-1	12	1	2	← -12 →		-9
2						
3	31	13	-2	-3	-10	-2
4	14	20	-8	0	-18	-6
5						
6	39	5	-4	7	-9	-1
VI-1	14	11	-2	0	-14	-5
2	39	10	4	4	-17	1
3	35	18	-4	0	-19	-5
4						
5	34	-3	1	0	-15	-17
6	32	-1	17	-2	-16	-2
Mean	20.2					-7.0

Period Stake No.	Jan. 27, 1973- May 25, 1974 (483 days)	May 25 - Sep. 8, 1974 (106 days)	Sep. 8 - Oct. 5, 1974 (27 days)	Oct. 5, 1974- Jan. 15, 1975 (102 days)	May 25, 1974- Jan. 15, 1975 (235 days)
H68 I - 1	26	2	15	-14	3
2	22	10	7	-8	9
3	14	1	8	-10	-1
4	21	12	4	-5	11
5	22	14	0	-6	8
6	6	10	12	-12	10
II - 1	38	-1	11	-12	-2
2	25	-1	14	-10	3
3	16	1	0	-1	0
4	14	-11	8	-1	-4
5	-9	10	-2	15	23
6	7	7	5	-10	2
III - 1	26	0	17	-8	9
2	24	1	6	-3	4
3	-4	1	4	-8	-3
4	9	4	0	-3	1
5	30	-2	0	-9	-11
6	22	2	-1	-2	-1
IV - 1	38	18	0	-10	8
2					
3	24	0	12	-9	3
4	30	1	6	-14	-7
5	27	12	-4	-9	-1
6	35	2	0	-5	-3
V - 1	54	-3	10	-14	-7
2	42	11	0	-5	6
3	38	4	3	-7	0
4	38	3	5	-7	1
5					
6	16	7	4	-6	5
VI - 1	42	-2	0	-6	-8
2	52	-2	-1	-4	-7
3	52	-7	0	-6	-13
4	25	7	2	-9	0
5	24	3	2	-2	3
6	35	9	2	-14	-3
Mean	25.9				1.1

Period Stake No.	Jan. 25, 1973- Mar. 9, 1974 (408 days)	Mar. 9 - Apr. 30, 1974 (52 days)	Apr. 30 - May 24, 1974 (24 days)	May 24 - Sep. 6, 1974 (105 days)	Sep. 6 - Oct. 7, 1974 (31 days)	Oct. 7, 1974- Jan. 14, 1975 (99 days)	Mar. 9, 1974- Jan. 14, 1975 (311 days)
H180 I-1	17	7	-1	12	9	2	29
2	10	14	0	12	11	-3	34
3	26	5	6	9	4	-2	22
4	25	1	0	20	0	-4	17
5	24	0	0	0	3	2	5
6	19	8	12	4	1	-2	23
II-1	24	17	0	5	9	-13	18
2	27	25	0	0	0	-5	20
3	33	10	0	3	0	-2	11
4	15	22	0	5	5	-10	22
5	26	7	0	7	0	-6	8
6	11	12	2	12	5	-9	22
III-1	25	8	7	17	-1	-5	26
2	29	2	0	8	5	-9	6
3	22	10	0	3	5	-4	14
4	32	5	0	3	0	-3	5
5	18	5	10	-3	13	-1	24
6	28	16	0	0	11	9	18
IV-1	28	8	-1	10	4	-7	14
2	29	9	0	1	4	-7	7
3	10	28	4	8	0	-6	34
4	14	10	3	11	3	0	27
5	24	-2	2	6	10	-4	12
6	20	9	2	15	9	-8	27
V-1	16	20	0	4	4	0	28
2	14	25	0	-1	6	2	32
3	27	13	0	4	1	-5	13
4	19	18	0	0	7	-3	22
5							
6	19	7	4	-2	13	-10	12
VI-1	29	10	1	0	0	2	13
2	25	1	10	7	2	6	26
3	31	15	0	8	9	3	35
4	31	3	5	8	-10	5	11
5	23	6	4	7	0	-8	9
6	18	5	5	11	5	-12	14
Mean	22.5						18.9

Period Stake No.	Jan. 24, 1973- Mar. 11, 1974 (411 days)	Mar. 11, - May 22, 1974 (72 days)	May 22 - Sep. 5, 1974 (106 days)	Sep. 5 - Oct. 8, 1974 (33 days)	Oct. 8, 1974- Feb. 7, 1975 (122 days)	Mar. 11, 1974- Feb. 7, 1975 (333 days)
S122 I-1	-6	-2	2	0	20	20
2	-8	0	1	0	14	15
3	-4	8	1	0	12	21
4	4	9	8	0	-26	-9
5	24	18	0	0	-32	-14
6	60	0	0	0	-34	-34
II-1	-7	0	0	0	40	40
2	-1	0	1	0	14	15
3	-2	2	0	-1	19	20
4	19	0	1	1	-27	-25
5	26	0	2	0	-25	-23
6	20	4	9	0	-51	-38
III-1	-7	3	-3	0	18	18
2	-7	0	1	0	-22	-21
3	22	0	1	0	-37	-36
4	-5	10	-9	1	22	24
5	1	0	0	0	12	12
6	-2	-1	2	0	-32	-31
IV-1	2	0	2	11	26	39
2	6	0	-9	10	24	25
3	14	0	0	3	-14	-11
4	2	0	1	3	4	8
5	23	-1	1	0	-18	-18
6	9	10	2	5	-45	-28
V-1	8	0	0	0	-6	-6
2	9	0	2	14	3	19
3	2	0	10	1	0	11
4	6	0	1	0	7	8
5	-5	8	1	0	-7	2
6	14	0	2	1	-4	-1
VI-1	0	14	0	0	-15	-1
2	-4	-1	1	0	-17	-17
3	-4	8	7	1	0	16
4	15	0	1	0	-9	-8
5	17	0	1	0	6	7
6	-10	0	0	1	1	2
Mean	6.4					0.0

Period Stake No.	Jan. 24, 1973- Mar. 12, 1974 (412 days)	Mar. 12 - May 21, 1974 (70 days)	May 21 - Sep. 4, 1974 (106 days)	Sep. 4 - Oct. 9, 1974 (35 days)	Oct. 9, 1974- Feb. 6, 1975 (120 days)	Mar. 12, 1974- Feb. 6, 1975 (331 days)
Z40 I-1	-5	5	1	2	32	40
2	-2	0	2	-1	17	18
3	3	8	1	0	-19	-10
4	1	9	0	0	10	19
5	-7	32	-3	0	-20	9
6	17	30	2	18	-34	16
II-1	12	0	1	0	37	38
2	25	1	1	1	-24	-21
3	6	9	0	0	-11	-2
4	25	0	1	-1	23	23
5	12	0	1	0	13	14
6	-7	1	0	1	-44	-42
III-1	0	0	1	0	-17	-16
2	-1	1	0	1	-32	-30
3	10	0	-1	2	7	8
4	-5	5	1	0	-16	-10
5	-6	0	2	0	22	24
6	13	0	0	1	8	9
IV-1	14	1	-3	1	39	38
2	2	2	0	0	8	10
3	3	0	1	0	8	9
4	2	-1	6	6	-16	-5
5	0	0	8	15	-32	-9
6	7	4	8	4	-52	-36
V-1	-2	1	12	0	-23	-10
2	17	18	1	2	4	25
3	25	29	3	0	9	41
4	22	20	-7	4	1	18
5	11	13	-7	30	-18	18
6	-1	0	0	0	26	26
VI-1	27	0	8	0	-51	-43
2	5	0	1	1	-11	-9
3	-9	0	1	0	-16	-15
4	0	0	4	4	4	12
5	14	0	1	0	0	1
6	-6	1	2	0	39	42
Mean	6.2					5.6

Period Stake No.	Jan. 4, 1973- Jan. 30, 1974 (391 days)	Jan. 30, - Apr. 18, 1974 (78 days)	Apr. 18 - June 24, 1974 (67 days)	June 24 - July 18, 1974 (24 days)	July 18 - Aug. 20, 1974 (33 days)	Aug. 20, 1974- Jan. 20, 1975 (153 days)	Jan. 30, 1974- Jan. 20, 1975 (355 days)
Mizuho Camp I-1	-1	-1	1	0	0	-4	-4
2	-8	-1	0	0	0	-4	-5
3	-6	14	-10	0	0	3	7
4	-2	15	-3	7	-5	8	22
5	6	34	-9	0	0	-5	20
6	17	23	0	0	0	-7	16
II-1	16	-2	0	0	0	-4	-6
2	-8	-1	0	6	-4	1	2
3	10	-1	1	0	0	1	1
4	18	0	0	0	3	-3	0
5	26	8	-10	0	0	-2	-4
6	-6	20	-6	0	0	-4	10
III-1	16	-1	0	0	0	-4	-5
2	16	-2	0	0	0	-3	-5
3	6	17	-1	0	0	-5	11
4	0	-1	12	0	0	-4	7
5	2	0	0	0	0	-5	-5
6	-3	-1	1	14	-14	-3	-3
IV-1	7	-1	1	0	0	-3	-3
2	-4	4	0	0	0	-3	1
3	6	0	0	0	0	-4	-4
4	8	-1	0	1	0	-4	-4
5	-3	-2	1	0	0	-6	-7
6	16	-1	0	0	0	-7	-8
V-1	-3	-1	0	0	0	-4	-5
2	-3	-1	1	0	-1	-4	-5
3	-2	0	0	0	0	-3	-3
4	-2	-2	0	0	0	-5	-7
5	-5	0	0	1	0	-6	-5
6	15	0	-1	0	0	-3	-4
VI-1	22	-1	1	0	0	-5	-5
2	11	8	0	0	0	-4	4
3	-6	11	-2	0	0	0	9
4	-4	6	-6	0	0	-2	-2
5	-4	-1	0	0	0	-3	-4
6	4	3	-4	0	0	-1	-2
Mean	4.2						0.1

Table 8. Net accumulation of 200-stake farm at S 122 (cm in depth).

Period Stake No.	Jan. 27 - Mar. 11, 1974 (43 days)	Mar. 11 - May 22, 1974 (72 days)	May 22 - Sep. 5, 1974 (106 days)	Sep. 5 - Oct. 8, 1974 (33 days)	Oct. 8, 1974 - Feb. 7, 1975 (122 days)	Jan. 27, 1974 - Feb. 7, 1975 (376 days)
1	3	0	0	0	-8	-5
2	0	0	1	0	-6	-5
3	-2	0	1	0	-7	-8
4	-2	-1	2	0	0	-1
5	-2	0	1	0	-2	-3
6	-1	0	0	0	-3	-4
7	-2	0	1	-3	0	-4
8	-2	0	1	0	-3	-4
9	-4	1	1	2	-4	-4
10	3	-1	2	0	-7	-3
11	8	0	0	0	-11	-3
12	5	1	0	0	-10	-4
13	2	-1	1	1	-6	-3
14	-2	1	1	0	-3	-3
15	2	0	0	-1	-4	-3
16	6	0	1	1	-8	0
17	6	0	1	0	-6	1
18	7	0	0	0	-6	1
19	7	1	-1	0	-4	3
20	9	0	1	0	-6	4
21	10	0	0	0	-6	4
22	15	0	1	0	-8	8
23	13	1	0	0	-7	7
24	12	1	0	0	-8	5
25	17	-10	1	0	-6	2
26	18	-9	1	0	-5	5
27	-2	2	0	0	-13	-13
28	-1	1	0	0	-2	-2
29	-1	●	2	0	-2	-1
30	-1	1	0	-1	-4	-5
31	-2	1	0	0	-6	-7
32	-2	2	0	0	-5	-5
33	-2	0	0	0	-6	-8
34	-1	0	1	-1	-6	-7
35	-2	-2	3	0	-6	-7
36	-1	-1	2	12	-7	5
37	-2	0	1	0	-6	-7
38	-2	0	1	0	-6	-7
39	-1	0	1	0	-5	-5
40	-1	0	1	-1	-6	-7
41	-4	2	0	0	-9	-11
42	0	-1	1	0	-6	-6
43	-1	-1	2	3	-5	-2
44	-2	9	5	0	-4	8
45	-2	-1	6	0	-3	0
46	0	-1	9	0	-5	3
47	-2	2	4	1	-2	3
48	-1	5	5	-2	0	7
49	-2	1	17	0	-9	7
50	-1	0	7	0	1	7
51	-1	4	7	4	0	14

Period Stake No.	Jan. 27 - Mar. 11, 1974 (43 days)	Mar. 11,- May 22, 1974 (72 days)	May 22 - Sep. 5, 1974 (106 days)	Sep. 5 - Oct. 8, 1974 (33 days)	Oct. 8, 1974- Feb. 7, 1975 (122 days)	Jan. 27, 1974- Feb. 7, 1975 (376 days)
52	0	0	11	2	-2	11
53	-3	2	7	0	-1	5
54	-2	1	10	0	-2	7
55	-1	-1	13	0	-1	10
56	0	3	6	1	-2	8
57	0	0	7	1	-2	6
58	-2	0	8	0	-4	2
59	-1	3	6	10	-14	4
60	-2	6	2	0	-4	2
61	0	0	6	1	-5	2
62	-1	-1	8	2	-7	1
63	-1	2	8	-1	-7	1
64	0	0	9	0	-8	1
65	-1	1	6	1	-7	0
66	0	-1	4	1	-6	-2
67	0	-1	5	0	-7	-3
68	0	-2	5	0	-6	-3
69	0	0	2	2	-7	-3
70	0	-1	2	1	-7	-5
71	-2	0	2	2	-8	-6
72	1	-2	2	0	-8	-7
73	0	-1	1	0	-5	-5
74	0	-2	1	0	-8	-9
75	-1	-1	1	0	-8	-9
76	-2	0	2	0	-6	-6
77	-1	-1	1	0	-6	-7
78	-1	-1	0	0	-5	-7
79	-1	-1	1	0	-7	-8
80	-2	-2	1	0	-7	-10
81	-1	-1	0	0	-7	-9
82	-2	0	0	0	-7	-9
83	-1	0	0	0	-7	-8
84	1	-1	0	0	-8	-8
85	6	-6	1	-1	-6	-6
86	2	0	1	0	-7	-4
87	7	-3	1	0	-9	-4
88	4	-4	0	0	-7	-7
89	-1	-1	1	0	-7	-8
90	-1	0	1	10	-16	-6
91	-1	0	-10	10	-6	-7
92	-2	0	1	0	-6	-7
93	0	-1	0	0	-8	-9
94	-1	-1	1	0	-5	-6
95	0	-1	0	0	-6	-7
96	-1	0	-1	0	-6	-8
97	-2	0	0	0	-5	-7
98	-1	-11	11	0	-5	-6
99	-1	-1	1	0	-3	-4
100	0	-1	1	0	0	0
101	-2	1	-1	13	-5	6
102	-1	19	-11	8	-6	9

Period Stake No.	Jan. 27 - Mar. 11, 1974 (43 days)	Mar. 11 - May 22, 1974 (72 days)	May 22, - Sep. 5, 1974 (106 days)	Sep. 5 - Oct. 8, 1974 (33 days)	Oct. 8, 1974- Feb. 7, 1975 (122 days)	Jan. 27, 1974- Feb. 7, 1975 (376 days)
103	0	16	1	0	-2	15
104	6	0	1	10	-4	13
105	6	0	-1	2	-7	0
106	24	1	1	2	-8	20
107	28	-4	0	0	-8	16
108	9	0	-10	20	-15	4
109	0	4	1	0	-5	0
110	-1	9	2	0	-6	4
111	3	9	0	0	-3	9
112	13	0	1	0	-7	7
113	-1	14	1	-1	-7	6
114	1	4	0	0	-8	-3
115	-1	13	0	-2	-6	4
116	-1	12	1	-1	-10	1
117	5	21	0	0	-8	18
118	6	28	0	1	-8	27
119	0	30	0	0	-6	24
120	-1	37	1	0	-8	29
121	1	44	0	1	-16	30
122	0	45	0	0	-10	35
123	4	38	5	0	-7	40
124	0	38	1	0	-6	33
125	-1	37	0	-1	-8	27
126	0	32	0	0	-8	24
127	0	25	2	0	-9	18
128	-1	7	11	0	-8	9
129	1	-1	15	-1	-2	12
130	-4	6	13	0	-4	11
131	0	7	12	0	-5	14
132	2	7	10	0	-1	18
133	0	16	3	1	0	20
134	3	16	-5	7	9	30
135	0	12	2	8	0	22
136	5	10	3	5	-9	14
137	8	8	7	0	-10	13
138	7	14	0	0	-8	13
139	19	2	1	-2	-6	14
140	21	0	1	0	-8	14
141	20	2	1	0	-7	16
142	19	8	0	1	-12	16
143	26	4	1	0	-7	24
144	31	4	1	0	-7	29
145	25	8	0	0	-5	28
146	25	7	0	-1	-11	20
147	18	15	0	1	-9	25
148	12	18	0	3	-11	22
149	8	23	1	0	-9	23
150	-1	29	0	0	-7	21
151	-1	32	0	1	-8	24
152	8	24	1	0	-6	27
153	16	20	1	-1	-6	30

Period Stake No.	Jan. 27, - Mar. 11, 1974 (43 days)	Mar. 11 - May 22, 1974 (72 days)	May 22 - Sep. 5, 1974 (106 days)	Sep. 5 - Oct. 8, 1974 (33 days)	Oct. 8, 1974- Feb. 7, 1975 (122 days)	Jan. 27, 1974- Feb. 7, 1975 (376 days)
154	23	17	1	2	-8	35
155	10	22	0	0	-5	27
156	0	22	0	-1	-5	16
157	6	25	1	0	-2	30
158	0	21	4	6	0	31
159	2	16	0	5	6	29
160	0	19	0	1	5	25
161	-1	21	0	0	0	20
162	0	13	0	1	-2	12
163	-1	9	0	2	-4	6
164	0	15	0	1	0	16
165	-1	1	0	6	12	18
166	-1	8	1	4	0	12
167	22	0	1	4	-5	22
168	33	-1	1	-2	-8	23
169	18	-3	0	6	-9	12
170	28	0	0	0	-10	18
171	32	2	1	-1	-14	20
172	33	0	1	0	-8	26
173	17	15	1	4	-8	29
174	8	23	1	9	-1	40
175	9	23	1	0	-4	29
176	2	30	0	0	-7	25
177	11	28	0	-1	-7	31
178	13	15	4	0	-4	28
179	21	8	4	0	-8	25
180	7	18	1	1	-10	17
181	6	20	4	0	-5	25
182	11	9	9	0	-10	19
183	4	12	9	1	-12	14
184	0	4	10	-1	-6	7
185	0	0	0	0	-2	-2
186	0	-1	1	-1	-5	-6
187	0	0	1	-1	-2	-2
188	1	7	1	-1	0	8
189	2	1	1	0	5	9
190	2	1	3	-2	8	12
191	6	0	1	0	-2	5
192	5	0	1	-1	-4	1
193	1	-1	1	-1	-5	-5
194	2	-3	3	0	-5	-3
195	1	-1	3	-1	-5	-3
196	2	-2	2	-1	-4	-3
197	0	0	1	0	-5	-4
198	1	0	4	-1	-7	-3
199	1	-1	2	0	-6	-4
200	0	1	0	0	-7	-6
Mean						6.9

Table 9. Net accumulation of 200-stake farm at Mizuho Camp (cm in depth).

Period Stake No.	Nov. 15, 1973- Jan. 30, 1974 (76 days)	Jan. 30 - Apr. 18, 1974 (78 days)	Apr. 18 - June 24, 1974 (67 days)	June 24 - July 18, 1974 (24 days)	July 18 - Aug. 20, 1974 (33 days)	Aug. 20, 1974- Feb. 5, 1975 (169 days)	Jan. 30, 1974- Feb. 5, 1975 (371 days)
1	3	-1	0	0	0	-4	-5
2	4	-2	0	0	1	-4	-5
3	5	-2	0	0	0	-5	-7
4	7	-2	1	0	0	-5	-6
5	2	-2	0	1	0	-4	-5
6	-1	-1	0	0	0	-4	-5
7	1	-2	0	1	0	-6	-7
8	4	-1	0	0	0	-4	-5
9	7	-2	0	0	0	-6	-8
10	4	-1	0	1	0	-5	-5
11	-1	-4	2	2	-2	-2	-4
12	2	-1	0	0	0	-2	-3
13	-6	3	-3	0	0	3	3
14	-8	3	0	0	1	1	5
15	-4	2	0	0	1	-3	0
16	-2	-2	-1	1	0	-3	-5
17	-2	-2	-2	1	0	-4	-7
18	-6	-1	0	0	0	-4	-5
19	-6	-1	0	0	0	-4	-5
20	-10	0	0	0	0	-5	-5
21	-12	0	0	0	0	-4	-4
22	-12	0	0	0	0	-4	-4
23	-10	-2	0	1	0	-6	-7
24	-14	-2	1	0	0	-3	-4
25	-10	-5	0	0	3	-7	-9
26	-4	-3	0	0	0	-6	-9
27	-3	-2	0	0	1	-4	-5
28	-5	-2	0	0	0	-4	-6
29	-1	0	0	0	0	-3	-3
30	-4	-2	0	-1	0	4	1
31	-4	1	0	0	0	-3	-2
32	-2	-1	0	0	0	2	1
33	-1	7	0	0	0	-4	3
34	4	7	-1	0	0	-2	4
35	4	11	-6	0	2	-2	5
36	2	16	-10	0	1	0	7
37	1	18	-4	1	0	-4	11
38	3	20	-1	2	-1	-6	14
39	0	15	-3	0	2	-1	13
40	-2	22	-5	3	-2	-2	16
41	-5	18	0	2	0	-7	13
42	-3	17	-4	0	0	-1	12
43	-3	15	-8	0	0	-2	5
44	-3	22	-7	-1	0	0	14
45	-3	21	-4	-3	0	0	14
46	-2	20	-6	3	-3	-4	10
47	-5	18	-3	4	-4	-4	11
48	-5	20	-4	3	-4	-5	10
49	-6	23	-7	6	-6	0	16
50	-4	26	-5	4	-4	10	31
51	-2	29	-10	2	-2	13	32

Period Stake No.	Nov. 15, 1973- Jan. 30, 1974 (76 days)	Jan. 30 - Apr. 18, 1974 (78 days)	Apr. 18, - June 24, 1974 (67 days)	June 24 - July 18, 1974 (24 days)	July 18 - Aug. 20, 1974 (33 days)	Aug. 20, 1974- Feb. 5, 1975 (169 days)	Jan. 30, 1974- Feb. 5, 1975 (371 days)
52	1	12	0	0	0	11	23
53	-1	15	-4	0	-1	16	26
54	-7	14	-3	2	0	15	28
55	-4	6	-8	3	-1	25	25
56	-3	-2	1	-1	1	19	18
57	-6	3	-2	0	0	15	16
58	-4	-1	-9	9	0	9	8
59	-3	-1	0	0	0	2	1
60	-4	-2	0	1	-1	6	4
61	-6	-1	0	1	0	-1	-1
62	-7	-1	0	0	0	-1	-2
63	-7	1	1	-9	9	-3	-1
64	-6	-1	0	0	0	2	1
65	-6	1	0	0	0	2	3
66	-8	7	-1	1	0	-4	3
67	-6	4	-1	3	-3	-2	1
68	-5	4	-2	2	-2	-2	0
69	-5	4	-2	1	0	-1	2
70	-7	3	-4	0	0	8	7
71	-7	0	6	1	0	-1	6
72	-9	5	5	0	0	-4	6
73	-7	8	1	0	1	-3	7
74	-10	13	0	-1	0	-3	9
75	-5	13	0	-1	0	-6	6
76	-8	23	-14	0	0	-4	5
77	-10	17	-7	0	2	-5	7
78	-8	28	-22	-1	0	-2	3
79	-7	21	-17	1	0	-3	2
80	-10	26	-26	0	2	0	2
81	-8	27	-27	0	2	-4	-2
82	-10	25	-25	1	0	-4	-3
83	-13	18	-18	0	0	-3	-3
84	-9	12	-18	0	0	-2	-8
85	-14	2	-10	0	0	4	-4
86	-13	-7	0	0	0	-4	-11
87	-14	-7	0	0	0	-2	-9
88	-13	-6	1	0	0	-4	-9
89	-11	-3	2	-1	1	-2	-3
90	-12	-1	2	0	0	-4	-3
91	0	-3	1	0	0	-6	-8
92	2	-1	0	0	0	-5	-6
93	9	-2	0	0	0	-6	-8
94	3	-1	0	0	0	-3	-4
95	5	-2	1	0	0	-4	-5
96	5	-2	1	0	0	-4	-5
97	5	-2	1	0	0	-4	-5
98	5	-1	0	0	0	-4	-5
99	4	-1	0	0	0	-4	-5
100	6	-2	1	0	0	-5	-6
101	8	-1	0	0	0	-5	-6
102	-4	0	1	2	0	-5	-2

Period Stake No.	Nov. 15, 1973- Jan. 30, 1974 (76 days)	Jan. 30 - Apr. 18, 1974 (78 days)	Apr. 18 - June 24, 1974 (67 days)	June 24 - July 18, 1974 (24 days)	July 18 - Aug. 20, 1974 (33 days)	Aug. 20, 1974- Feb. 5, 1975 (169 days)	Jan. 30, 1974- Feb. 5, 1975 (371 days)
103	-2	-1	0	0	0	-3	-4
104	1	-1	0	0	0	-4	-5
105	0	-1	0	0	1	-6	-6
106	6	-3	2	0	0	-4	-5
107	15	0	0	0	10	-15	-5
108	11	-2	1	0	1	-6	-6
109	11	-2	1	0	0	-4	-5
110	18	-2	0	0	0	-6	-8
111	0	-2	1	0	0	-2	-3
112	1	-1	1	0	0	-4	-4
113	5	-2	0	0	0	-6	-8
114	-2	-1	0	0	-1	-4	-6
115	1	13	-14	0	0	-3	-4
116	6	11	-12	0	0	-4	-5
117	1	12	-13	0	0	-6	-7
118	-2	-2	0	0	0	-6	-8
119	-7	24	-26	0	0	1	-1
120	-6	-2	1	6	0	0	5
121	-3	0	0	4	0	0	4
122	-4	14	-12	3	0	4	9
123	-4	5	-7	2	0	4	4
124	-4	-2	4	0	0	0	2
125	-6	-2	6	8	0	-7	5
126	-12	-1	0	8	0	-4	3
127	-10	0	0	0	0	-2	-2
128	-7	0	0	0	-2	-3	-5
129	-11	5	0	0	0	-6	-1
130	1	-2	0	0	0	-3	-5
131	-6	1	0	0	0	-3	-2
132	-9	7	-6	0	0	-6	-5
133	-4	-2	0	0	0	-7	-9
134	-1	-1	1	0	0	-4	-4
135	-9	-1	0	0	20	-22	-3
136	-10	6	-1	0	0	-8	-3
137	-7	-2	0	0	0	-7	-9
138	-10	3	-2	0	0	-3	-2
139	-2	-1	0	0	0	-5	-6
140	-9	-5	6	0	0	-5	-4
141	-15	0	0	0	0	-4	-4
142	2	-1	0	0	0	-4	-5
143	-8	-1	1	0	0	-3	-3
144	-12	-1	1	-1	1	-4	-4
145	-5	-8	1	0	0	-5	-12
146	-7	-3	0	0	0	0	-3
147	-3	-1	0	0	0	0	-1
148	-6	-2	0	0	0	11	9
149	2	0	0	0	0	8	8
150	1	-1	0	0	0	11	10
151	0	-1	0	0	0	17	16
152	-2	29	-10	2	-2	13	32
153	0	16	0	8	-9	0	15

Period Stake No.	Nov. 15, 1973- Jan. 30, 1974 (76 days)	Jan. 30 - Apr. 18, 1974 (78 days)	Apr. 18 - June 24, 1974 (67 days)	June 24 - July 18, 1974 (24 days)	July 18 - Aug. 20, 1974 (33 days)	Aug. 20, 1974- Feb. 5, 1975 (169 days)	Jan. 30, 1974- Feb. 5, 1975 (371 days)
154	-4	18	-6	6	-7	1	12
155	3	9	-6	0	0	0	3
156	5	12	-1	0	0	-4	7
157	5	12	-4	0	0	3	11
158	0	13	-1	2	0	0	14
159	-4	13	-3	0	0	2	12
160	-2	15	-4	0	0	3	14
161	0	14	-2	0	0	-2	10
162	0	18	-2	0	0	-3	13
163	2	16	0	0	0	-3	13
164	-8	24	-2	0	1	-5	18
165	-7	22	-6	3	-3	-3	13
166	-6	14	0	0	0	-2	12
167	-9	23	-3	-2	1	-4	15
168	-7	17	2	0	0	-3	16
169	-7	25	-10	1	2	4	22
170	-6	18	2	-5	6	-4	17
171	-6	16	-1	0	0	-3	12
172	-6	13	-5	0	0	0	8
173	-5	0	1	4	-5	-4	-4
174	-8	2	0	0	0	-2	0
175	-8	0	1	0	0	-1	0
176	-7	0	0	0	0	-4	-4
177	-2	1	0	0	0	-5	-4
178	1	-1	1	0	0	-7	-7
179	0	0	0	0	2	-6	-4
180	3	0	0	0	0	-4	-4
181	-2	-2	0	0	3	0	1
182	-2	0	0	0	1	-3	-2
183	-6	0	0	0	0	0	0
184	-5	1	0	1	0	-7	-5
185	-4	0	0	1	0	-4	-3
186	-6	0	0	0	0	-3	-3
187	-5	-1	0	0	0	-5	-6
188	-5	0	0	0	0	-5	-5
189	-6	0	0	0	4	-3	1
190	-6	2	-1	0	2	-3	0
191	-5	13	-11	-1	1	-6	-4
192	-5	18	-18	0	3	-5	-2
193	-8	12	-11	0	3	-4	0
194	-3	10	-10	0	1	-6	-5
195	-13	13	-9	0	-2	-5	-3
196	-18	3	-3	0	10	-13	-3
197	-8	-1	0	0	0	-4	-5
198	-5	-8	9	0	1	-13	-11
199	-5	2	0	5	-4	-2	1
200	2	3	0	0	0	-4	-1
201	-4	10	-10	0	1	-3	-2
202	-6	10	-9	0	1	-5	-3
Mean							1.3

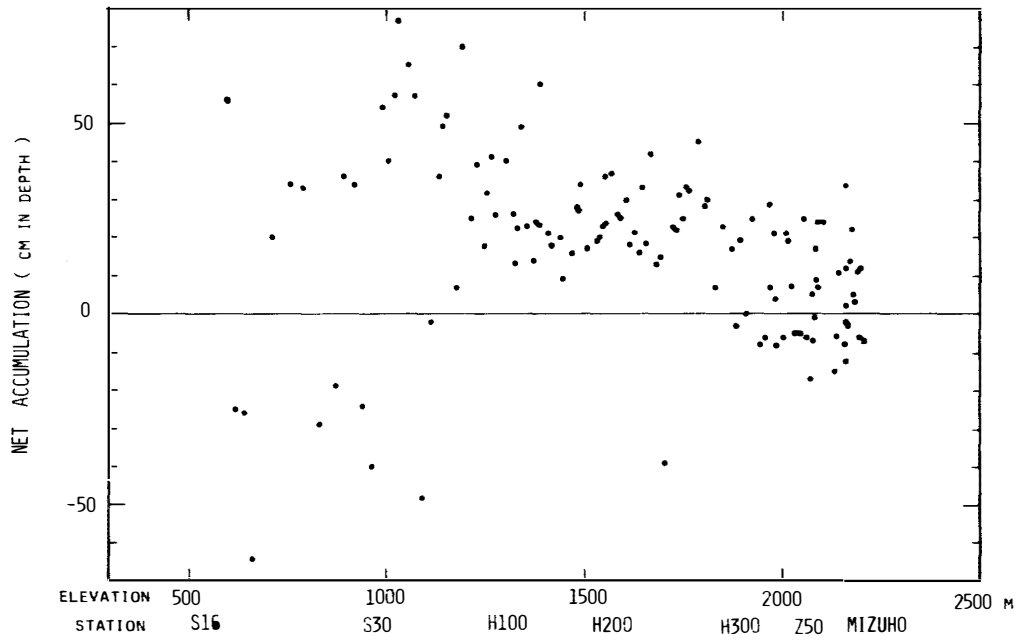


Fig. 1. Annual net accumulation (cm in depth) in 1974–1975 vs. surface elevation along Routes S, H and Z.

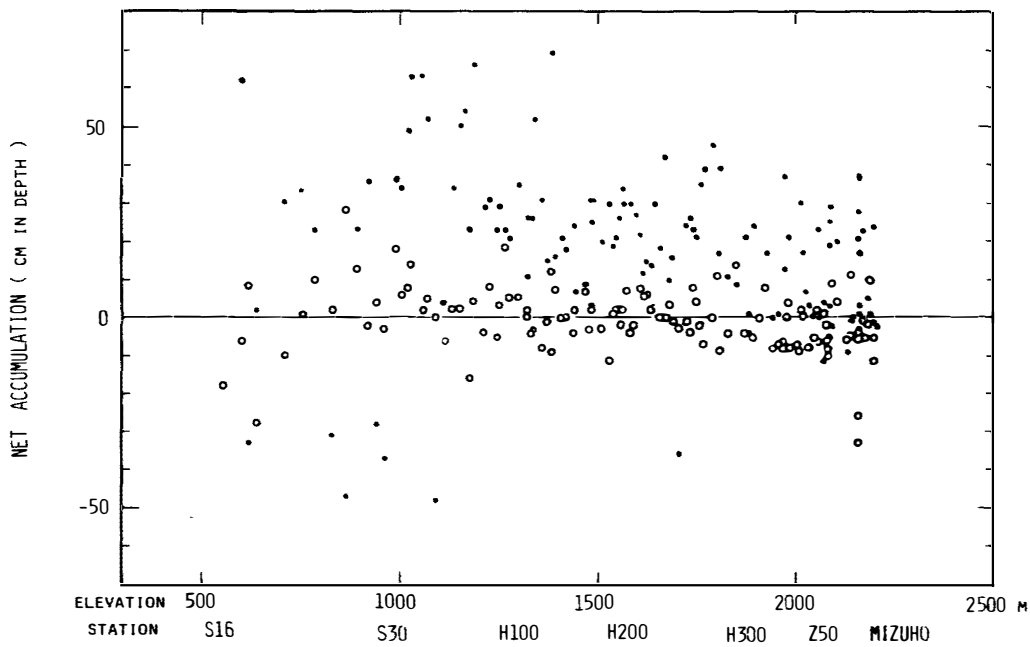


Fig. 2. Net accumulation (cm in depth) for the winter season and that for the summer season.
 ● : from January to September in 1974
 ○ : from September in 1974 to January/February in 1975

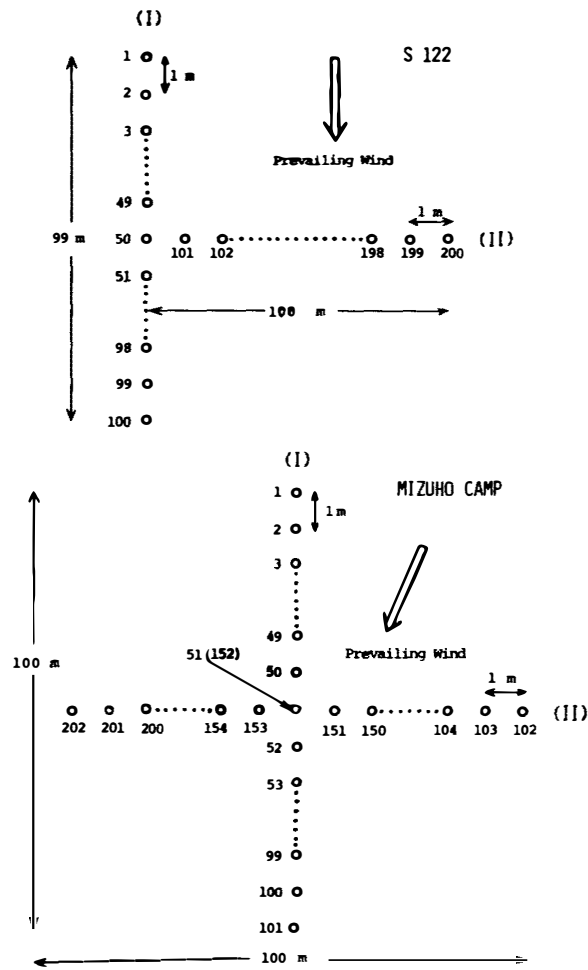


Fig. 3. The configuration 200-stake farm at S 122 and Mizuho Camp.