

Final Report of Initial  
Evaluation Plantings at the  
Kenny Lake Evaluation Plots  
1980 - 1989

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## Index

	<u>Page</u>
Introduction . . . . .	1
Purpose . . . . .	1
Methods . . . . .	1
Results . . . . .	7
Conclusions & Recommendations . . . . .	15
Appendix I Cooperators . . . . .	16

## List of Figures

Typical Plot Layout . . . . .	3
Demonstration Planting . . . . .	4
Legume & Brome Plot . . . . .	5
Sample Evaluation Sheet . . . . .	6
Hoisington Plot Results . . . . .	8 - 12
Sutton Plot Results . . . . .	14

## Introduction

The Conservation Plant Project at the Alaska Plant Materials Center (PMC), in the Alaska Department of Natural Resources, Division of Agriculture, is responsible for developing new plant varieties (cultivars) for land reclamation, habitat enhancement, and erosion control. In addition to the development of new plant cultivars, this project also is responsible for developing techniques for erosion control and reclamation. In order to accomplish these goals, it is beneficial for the PMC to cooperate with industry, and other governmental agencies throughout Alaska.

## Purpose

Advanced Evaluation and Demonstration Plots are established throughout Alaska for three main purposes. The first purpose allows for advanced or final evaluation of plant materials that have performed well at the Palmer PMC for a period of at least three years. This offsite evaluation is important so that a plant's adaptability and range of suitability can be determined. If the plant does well at this stage it may be released as a new cultivar.

The second purpose provides an opportunity to establish demonstration plantings containing the species recommended for the area in The Revegetative Guide for Alaska. The results from the planting determine if changes should be made in the Guide.

The third reason for the plots is to provide a centralized area for local plantings by the Cooperative Extension agents, District Conservationists (DC), or other cooperators. This allows the agent or DC to tailor the plot to local interests. The plots also give the agent or DC a "classroom" where specific plant materials may be viewed and worked with by local farmers, students, and other groups interested in farming or gardening.

The PMC has been conducting evaluations near Kenny Lake since 1980. The first plot trial was established on a Kenny Lake farm on May 28, 1980. This plot was evaluated from 1980 - 1983.

Continued interest from the Kenny Lake Soil and Water Conservation District encouraged the Plant Materials Center to establish a large, well protected plot near Kenny Lake in 1984. This plot was established on the Sutton farm. These sites were considered to be in an area with soils and weather fairly typical of the region.

## Methods

In May 1980, 210 collections of various grasses and legumes were planted at the Hoisington Farm. These plantings were established in single 20-foot rows three feet apart. All the collections were planted with a walk-behind Planet Jr.

The Hoisington plot consisted of 210 accessions of different plant materials. The majority of the plot consisted of legume species; 3 cicer milkvetches, 13 crownvetch, 10 trefoils, 6 alfalfas, 27 sweetclovers, 59 sainfoins, 12 alsike clovers, 44 red clovers and a few minor legumes. The lot also contained 35 non-legumes, most of which were grasses.

These plots were evaluated annually from 1980 - 1983. This plot was fertilized once at planting with 450 pounds of 20-20-10 fertilizer per acre. No additional fertilizer was applied during the evaluation period.

The 1984 plots consisted of four plots containing 50 accessions. Figure 1 shows a typical plot layout.

Three plots were hand-seeded with pre-measured amounts of seed. The seeding rates of each block were approximately 40 pounds per acre. Following seeding, the entire plots were fertilized with 20-20-10 fertilizer at a rate of 450 pounds per acre (90 pounds actual nitrogen, 90 pounds actual phosphorus, and 45 pounds actual potash). After each plot was seeded and fertilized, the area was raked by hand to incorporate the seed and fertilizer.

The fourth plot was drill seeded with a Planet Junior.

In addition to the advanced evaluation plots, a demonstration planting of recommended varieties from the "Guide" was planted (Figure 2). Each variety was planted in a 10' x 60' block. The demonstration area contained the 13 varieties. Each variety was grown in three fertilizer regimes. The block was then divided into thirds for fertilizer treatment. Fertilizer (20-20-10) was applied at the rates of 0 lb/a, 240 lb/a, and 480 lb/a. Random soil samples were taken prior to plot establishment.

At the request of Kenny Lake farmers, the PMC also planted five varieties of Alfalfa and one variety of Red Clover (Figure 3) in 1984.

Advanced evaluation plots are evaluated at least once a year. The accessions are rated for vigor, percent stand, and numerous other factors such as hardiness, disease-resistance, and related characteristics. However, we have found that vigor and percent stand give a reliable indication of how the different accessions compare with each other. Figure 4 is an example of the evaluation sheets that will be presented in this report. The following numbers, followed by brief explanations, correspond to numbers on the example evaluation sheet:

1. Location and title of evaluation plot.
2. Number of evaluation blocks--This number may range from one to three blocks.
3. Year of Record--the year that evaluation data was collected.

Typical Plot Layout

<-----> 10' <----->

Nugget Kentucky Bluegrass	Merion Kentucky Bluegrass
Park Kentucky Bluegrass	Banff Kentucky Bluegrass
Sydsport Kentucky Bluegrass	Fylking Kentucky Bluegrass
Poa ampla	Troy Kentucky Bluegrass
Sherman Big Bluegrass	Canbar Canby Bluegrass
Tundra Bluegrass	Reubans Canada Bluegrass
Poa glauca T08867	Poa alpina
Agropyron subsecundum 371698	Sodar Streambank Wheatgrass
Nordan Crested Wheatgrass	Agropyron subsecundum Canada
Fairway Crested Wheatgrass	Agropyron violaceum
Summit Crested Wheatgrass	Agropyron boreal
Critana Thickspike Wheatgrass	Agropyron yukonese
Fults Alkaligrass	Vantage Reed Canarygrass
Climax Timothy	Engmo Timothy
Elymus arenarius	Elymus sibiricus 34560
Elymus sibiricus 1966	Elymus sibiricus 2144
Norcoast Bering Hairgrass	Tufted Hairgrass
Sourdough Bluejoint	Calamagrostis canadensis Delta
Meadow Foxtail	Alopecurus geniculatus
Garrison Creeping Foxtail	Arctared Red Fescue
Boreal Red Fescue	Festuca scabrella
Beckmannia	Pennlawn Red Fescue
Durar Hard Fescue	Highlight Red Fescue
Covar Sheep Fescue	Manchar Smooth Brome
Alyeska	Carlton Smooth Brome
Tellesy Sage	Pumpelly Brome

Figure 1. Typical Plot Layout

Demonstration Planting

	0 Fertilizer	240 lb. 20-20-10 per acre	480 lb. 20-20-10 per acre
Arctared			
Boreal			
Durar			
Sourdough			
Park			
Merion			
Alaskaland			
White Dutch Clover			
Alsike Clover			
Engmo			
Garrison			
Alyeska			
Manchar			
Sodar			
			< 20' >

Figure 2 .

Dry Lander Alfalfa	
Peace Alfalfa	
Vernal Alfalfa	
Beaver Alfalfa	
Anik Alfalfa	
Altaswede Red Clover	10'
< 10' Legume & Brome Plot. >	

Figure 3.

1	3					
	2 # of Blocks	4	5			
1	6					1
2	'Merion' Kentucky Bluegrass					2
3	'Banff' Kentucky Bluegrass					3
4	'Park' Kentucky Bluegrass					4
5	etc.					5
6						6
7						7
8						8
9						9
10						10
11						11
12						12
13						13
14						14
15						15
16						16
17						17
18						18
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32						32
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34						34
35						35
36						36
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42						42
43						43
44						44
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46						46
47						47
48						48
49						49
50						50
51						51
52						52

Figure 4. Sample Advanced Evaluation Page.

- 1961
- with Figure 5 and
4. Vigor--this number can range from one to nine. One is best and nine is the worst rating. If possible, this rating is determined by comparison with other accessions of the same species. The rating is based on color, height, health, flowering and/or seed production, and on the evaluator's knowledge of the plant, and its expected performance. If more than one block is planted, this number will be an average of the ratings for each block.
  5. Percent Stand--this number represents the percentage of the ground that is covered by the accession. Only live plant material is included; litter from previous year's growth and other species are not included. If more than one block is planted, this number will be an average of the ratings for each block.
  6. The accession that is being rated. The accession is identified by its varietal and common name or its common name and its accession number.

### Results

#### 1980 Hoisington Plot:

The results of the plots from 1980 to 1983 can be seen in Figure 5. None of the collections of either trefoil or crownvetch produced satisfactory results. However, alfalfas did show promise. Two collections of Hungarian sainfoin and Oxley cicer milkvetch should also be tried on a larger scale. The legumes that exhibited excellent performance should be grown again.

	Planted 5-20-80 Species/Variety/P.I. Number	1980		1981		1982		1983		
		Vigor	% Stand	Vigor	% Stand	Vigor	% Stand	Vigor	% Stand	
1	Cicer Milkvetch									1
2	Lutana	5	100	5	40	3	70	3	80	2
3	Monarch	1	100	3	100	5	100	7	80	3
4	Oxley	7	100	5	100	3	100	1	100	4
5	Crownvetch									5
6	Penngift	9	50	-	-	-	-	-	-	6
7	204871	9	10	-	-	-	-	-	-	7
8	238142	3	35	-	-	-	-	-	-	8
9	325257	8	20	-	-	-	-	-	-	9
10	325259	3	60	-	-	-	-	-	-	10
11	325261	7	80	-	-	-	-	-	-	11
12	325263	3	80	-	-	-	-	-	-	12
13	325265	5	30	-	-	-	-	-	-	13
14	326324	9	10	-	-	-	-	-	-	14
15	340779	1	80	-	-	-	-	-	-	15
16	346776	5	100	-	-	-	-	-	-	16
17	380805	7	75	-	-	-	-	-	-	17
18	384837	7	90	-	-	-	-	-	-	18
19	Chemung	1	100	3	90	3	50	-	-	19
20	Northern Sweet Vetch									20
21	T15901	5	80	3	70	3	50	-	-	21
22	Flat Pea Vine									22
23	Lathco	-	-	-	-	-	-	-	-	23
24	Russian Trefoil									24
25	315449	1	100	5	40	-	-	-	-	25
26	314535	3	90	-	-	-	-	-	-	26
27	325365	5	100	3	60	3	75	3	60	27
28	325367	3	95	-	-	-	-	-	-	28
29	325369	7	30	-	-	-	-	-	-	29
30	325371	5	80	-	-	-	-	-	-	30
31	325373	9	20	-	-	-	-	-	-	31
32	325375	7	40	-	-	-	-	-	-	32
33	325377	9	25	-	-	-	-	-	-	33
34	Bird's Foot Trefoil									34
35	Tretana	5	100	3	80	3	90	1	90	35
36	Siberian Alfalfa									36
37	PI448	3	100	1	100	1	100	1	100	37
38	Denali	1	100	1	100	1	100	1	100	38
39	Alfalfa (Blue)									39
40	Drylander	5	80	5	100	7	100	5	100	40
41	Roamer	1	100	3	100	3	100	3	100	41
42	Beaver	3	100	3	100	1	100	3	100	42
43	Vernal	5	100	5	100	7	100	3	80	43
44	White Sweet Clover									44
45	T08834	7	30	-	-					45
46	T08835	3	80	1	80					46
47	T08836	7	100	9	30					47
48	T08837	7	75	7	40					48
49	T08838	1	100	1	100					49
50	T08839	-	-	-	-					50
51	T08840	7	100	9	35					51
52	T08841	5	70	-	-					52

Figure 5. Advanced Evaluation Page.

1980	Kenny Lake Plot	1980		1981		1982		1983	
		Vigor	% Stand	Vigor	% Stand	Vigor	% Stand	Vigor	% Stand
	Planted 5-20-80 Species/Variety/P.I. Number								
1	White Sweet Clover								1
2	90186	9	70	9	30				2
3	90557	7	80	-	-				3
4	Pioneer S-898	5	100	3	80				4
5	Melana	7	60	-	-				5
6	Arctic	5	80	1	100				6
7	Erandod Dwarf	3	85	1	100				7
8	342682	7	50	3	90				8
9	342683	3	100	3	100				9
10	342689	1	100	5	75				10
	Yellow Sweet Clover								
11	23327	5	90	9	20				11
12	213328	5	80	9	10				12
13	296374	7	95	-	-				13
14	296375	5	100	5	100				14
15	T08842	-	-	-	-				15
16	T08843	3	100	3	100				16
17	T08844	-	-	-	-				17
18	Yukon	1	100	1	100				18
19									19
20	Hungarian Sainfoin								20
21	251696	-	-	-	-	-	-	-	21
22	273744	5	90	3	100	3	90	1	100
23	273746	5	90	5	90	-	-	-	22
24	273749	5	100	3	80	-	-	-	23
25	273751	7	50	3	100	1	100	3	24
26	312910	1	100	5	70	-	-	-	25
27	312912	3	70	3	100	-	-	-	26
28	312914	7	80	9	40	-	-	-	27
29	312916	5	90	7	50	-	-	-	28
30	312918	5	100	3	50	-	-	-	29
31	312920	7	90	5	100	3	100	1	100
32	312922	7	100	5	75	-	-	-	30
33	312924	7	90	7	90	-	-	-	31
34	312925	9	90	9	70	-	-	-	32
35	312927	9	85	9	30	-	-	-	33
36	312929	3	100	9	25	-	-	-	34
37	315084	7	90	5	100	-	-	-	35
38	368032	5	100	1	100	-	-	-	36
39	372798	7	90	5	75	-	-	-	37
40	372800	5	100	7	30	-	-	-	38
41	372802	7	90	9	20	-	-	-	39
42	372804	7	80	9	20	-	-	-	40
43	Transcaucasian Sainfoin								41
44	313001	5	100	-	-	-	-	-	42
45	313003	9	80	7	25	-	-	-	43
46	313005	5	100	9	10	-	-	-	44
47	313007	5	95	7	10	-	-	-	45
48	313009	7	80	-	-	-	-	-	46
49	313011	5	100	-	-	-	-	-	47
50	313014	7	80	5	30	-	-	-	48
51	313016	5	100	5	80	-	-	-	49
52	313018	7	100	7	80	-	-	-	50

Figure 5. Advanced Evaluation Page.

1980 Kenny Lake Plot		1980		1981		1982		1983		
Planted 5-20-80	Species/Variety/P.I. Number	Vigor	% Stand	Vigor	% Stand	Vigor	% Stand	Vigor	% Stand	
1	Transcaucasian Sainfoin									1
2	313020	7	90	3	100	-	-	-	-	2
3	313022	5	100	3	60					3
4	313024	7	80	9	90	-	-	-	-	4
5	313026	5	100	7	40	-	-	-	-	5
6	313029	5	90	5	80	-	-	-	-	6
7	313031	7	80	-	-	-	-	-	-	7
8	313033	3	100	-	-	-	-	-	-	8
9	313034	5	100	-	-	-	-	-	-	9
10	Common Sainfoin									10
11	Eski	5	100	5	75	-	-	-	-	11
12	Remont	1	100	5	50	-	-	-	-	12
13	258770	7	100	9	40	-	-	-	-	13
14	259491	5	80	-	-	-	-	-	-	14
15	259493	9	10	5	30	-	-	-	-	15
16	263158	9	70	-	-	-	-	-	-	16
17	273784	9	60	7	40	-	-	-	-	17
18	273786	7	60	5	70	-	-	-	-	18
19	273788	5	80	7	50	-	-	-	-	19
20	273790	3	90	3	100	-	-	-	-	20
21	313052	5	80	7	20	-	-	-	-	21
22	313054	9	50	-	-	-	-	-	-	22
23	313056	5	80	7	45	-	-	-	-	23
24	313058	7	50	9	30	-	-	-	-	24
25	318603	9	70	9	20	-	-	-	-	25
26	Melrose	7	80	9	25	-	-	-	-	26
27	Krasnador	3	100	1	100	-	-	-	-	27
28	T17392	1	100	3	60	-	-	-	-	28
29	Alsike Clover									29
30	T08905	3	100	3	100	5	100	5	100	30
31	T08906	5	100	5	100	3	100	1	100	31
32	T08907	3	100	1	100	-	-	-	-	32
33	T08908	5	50	3	100	-	-	-	-	33
34	T08909	7	100	5	100	-	-	-	-	34
35	T08910	7	100	7	100	-	-	-	-	35
36	T08911	9	100	5	100	5	100	3	100	36
37	T08912	5	100	3	100	-	-	-	-	37
38	T08913	9	90	7	100	-	-	-	-	38
39	T08914	7	50	7	75	-	-	-	-	39
40	T08915	5	80	3	100	-	-	-	-	40
41	T08916	5	100	5	100	5	90	7	100	41
42	T08917									42
43	Red Clover									43
44	T08918	-	-	-	-					44
45	T08919	-	-	-	-					45
46	T08920	9	50	-	-					46
47	T08921	5	100	5	60	3	75	3	75	47
48	T08922	5	100	3	100	3	100	1	100	48
49	T08923	3	100	7	20					49
50	T08924	7	100	-	-					50
51	T08925	7	100	9	10					51
52	T08926	9	100	5	80	5	100	5	100	52

Figure 5. Advanced Evaluation Page.

	Planted 5-20-80 Species/Variety/P.I. Number	1980		1981		1982		1983	
		Vigor	% Stand	Vigor	% Stand	Vigor	% Stand	Vigor	% Stand
1	Red Clover								1
2	T08927	9	100	5	80	5	100	5	100
3	T08928	5	100	5	100	5	100	5	100
4	T08929	9	100	5	100				4
5	T08930	5	100	7	60				5
6	T08931	5	100	3	100				6
7	T08932	7	100	5	100				7
8	T08933	9	100	7	100				8
9	T08934	5	100	5	100				9
10	T08935	3	100	1	100				10
11	T08936	5	100	5	100				11
12	T08937	3	100	3	100				12
13	T08938	5	100	5	40				13
14	T08939	1	100	5	60				14
15	T08940	1	100	3	100				15
16	T08941	5	100	5	100				16
17	T08942	3	100	1	100				17
18	T08943	1	100	3	100				18
19	T08944	5	100	3	100				19
20	T08945	3	100	3	60				20
21	T08946	5	100	5	100				21
22	T08947	1	100	3	100				22
23	T08948	5	100	7	100				23
24	T08949	5	100	5	100				24
25	T08950	7	100	9	20				25
26	T08951	5	100	5	100				26
27	T08952	-	-	-	-				27
28	T08953	7	100	5	100	5	100	3	100
29	T08954	9	100	7	50	5	100	5	80
30	T08955	7	100	9	30				30
31	T08956	5	100	5	70				31
32	T08957	5	100	7	100				32
33	T08958	5	100	5	100	5	80		33
34	T08959	5	90	3	100				34
35	T08960	5	100	7	10				35
36	Alaskaland	3	100	1	100	1	100	3	100
37	Tilesy Sage	3	100	1	100	1	100	1	100
38	Wytana Four Wing Saltbush	5	100	7	10	-	-	-	38
39	Nuttal Saltbush	5	60	7	5	-	-	-	39
40	Slender Wheatgrass								40
41	371692	-	-	-	-	-	-	-	41
42	372644	-	-	-	-	-	-	-	42
43	Bearded Wheatgrass								43
44	371698	1	100	1	100	1	100	1	100
45	'Egan' American Sloughgrass	1	100	1	100	7	30	7	10
46	'Sourdough' Bluejoint	3	75	1	100	1	100	1	100
47	Orchard Grass								47
48	'Masshardy'	3	100	3	100	1	100	-	-
49	'Sterling'	5	100	5	100	5	100	-	-
50	'Boone'	1	100	7	100	5	100	-	-
51	'Rideau'	1	100	1	100	3	100	-	-
52	'Chinook'	5	100	3	100	1	100	-	-

Figure 5. Advanced Evaluation Page.

1980 Kenny Lake Plot		1980		1981		1982		1983		
	Planted 5-20-80 Species/Variety/P.I. Number	Vigor	% Stand	Vigor	% Stand	Vigor	% Stand	Vigor	% Stand	
1	Beach Wildrye	-	-	-	-	-	-	-	-	1
2	Blue Wildrye									2
3	232270	-	-	-	-	-	-	-	-	3
4	236815	-	-	-	-	-	-	-	-	4
5	236817	5	30	-	-	-	-	-	-	5
6	Russian Wildrye									6
7	'Mayok'	1	100	3	100	1	100	1	100	7
8	'Sawki'	5	100	3	100	5	100	7	100	8
9	'Vinall'	7	100	1	100	3	100	5	100	9
10	Siberian Wildrye									10
11	322191	7	30	5	100	3	100	3	100	11
12	372696	1	100	3	100	1	100	5	100	12
13	345600	3	100	1	100	1	100	1	100	13
14	Tall Fescue									14
15	'Kenmont'	5	100	3	100	-	-	-	-	15
16	'Kentucky 31'	1	100	5	100	-	-	-	-	16
17	'Alta'	7	40	9	50	-	-	-	-	17
18	283299	5	100	1	100	-	-	-	-	18
19	Red Fescue									19
20	'Arctared'	5	100	1	100	1	100	1	100	20
21	369241	1	100	1	100	5	100	5	100	21
22	Reed Canarygrass									22
23	272122	3	100	3	100	7	100	-	-	23
24	319825	5	100	3	100	5	100	-	-	24
25	345662	5	90	1	100	5	100	-	-	25
26	'Nugget' Kentucky Bluegrass	5	100	1	100	1	100	1	100	26
27										27
28										28
29										29
30										30
31										31
32										32
33										33
34										34
35										35
36										36
37										37
38										38
39										39
40										40
41										41
42										42
43										43
44										44
45										45
46										46
47										47
48										48
49										49
50										50
51										51
52										52

Figure 5. Advanced Evaluation Page.

1984 Sutton Plot:

The results for the 1984 plots can be found in Figure 6. In 1984 and 1985, no notes were recorded as the weed cover was too severe. Recordkeeping began in 1986.

By the final evaluation on September 19, 1989, only 'Nugget' and 'Park' Kentucky Bluegrass, 'Service' Big Bluegrass, 'Gruening' Alpine Bluegrass, Rough Fescue, 'Pennlawn' and 'Arctared' Red Fescues and Smooth Brome exhibited good to excellent performance.

Other accessions were in very poor condition. 'Durar' Hard Fescue, and 'Garrison' Creeping Foxtail either failed to survive, or performed very poorly. 'Garrison' and 'Durar' are recommended by The Revegetative Guide for Alaska. The overall poor performance of this plot can probably be attributed, in part, to the severe competition from weeds. See Figure 6 for complete year by year detail.

In the demonstration planting of recommended varieties from The Revegetative Guide For Alaska, 'Boreal' Red Fescue, 'Sourdough' Bluejoint, and 'Park' Kentucky Bluegrass outperformed all the other varieties of grass in all the categories. Alsike Clover was the only legume to produce a stand, although it did not perform as well as would be expected. Alsike survived until 1987. Once again, 'Garrison' Creeping Foxtail and 'Durar' did not produce satisfactory results. White Dutch Clover, another recommended variety for Kenny Lake, also failed to survive.

Out of the five varieties of alfalfa and one variety of red clover planted at the request of Kenny Lake farmers, only Anik and Peace Alfalfa and Altaswede Red Clover survived to September 1989. Anik was definitely the most superior.

Kenny Lake		85	86	87	89				
	3 Blocks of Plantings								
1	'Nugget' Kentucky Bluegrass		1 100	2 80	2 100				1
2	'Merion' Kentucky Bluegrass		1 90	7 60	- -				2
3	'Banff' Kentucky Bluegrass		5 80	- -	- -				3
4	'Park' Kentucky Bluegrass		3 67	3 100	1 100	4			4
5	'Sydsport' Kentucky Bluegrass		6 80	3 22	7 33				5
6	'Fylking' Kentucky Bluegrass		3 67	5 60	5 47				6
7	'Troy' Kentucky Bluegrass		- -	- -	- -				7
8	Big Bluegrass 387931		3 80	5 80	3 90				8
9	'Sherman' Big Bluegrass		- -	- -	- -				9
10	'Canbar' Canby Bluegrass		- -	- -	- -				10
11	'Reubans' Canada Bluegrass		- -	- -	- -				11
12	'Tundra' glaucus Bluegrass		7 63	- -	- -				12
13	Glaucus Bluegrass T08867 *		3 100	7 60	- -				13
14	Alpine Bluegrass 235491 *		1 100	2 90	3 73				14
15	'Sodar' Streambank wheatgrass		3 100	7 63	9 33				15
16	Bearded wheatgrass 371698		7 90	- -	- -				16
17	Bearded wheatgrass 236693		7 50	9 33	- -				17
18	'Nordan' Crested wheatgrass		1 90	- -	- -				18
19	'Fairway' Crested wheatgrass		- -	- -	- -				19
20	'Summit' Crested wheatgrass		- -	- -	- -				20
21	Violet wheatgrass T12050		3 100	5 100	5 50				21
22	Boreal wheatgrass T12048		7 100	3 60	- -				22
23	Yukon wheatgrass T12051		5 90	3 90	- -				23
24	'Critana' Thickspike wheatgrass		1 100	7 63	9 23				24
25	'Fults' Alkaligrass		1 100	- -	- -				25
26	'Vantage' Reed Canarygrass		1 90	2 -	- 100				26
27	'Engmo' timothy		3 97	9 30	- -				27
28	'Climax' timothy		7 67	9 33	- -				28
29	Beach wildrye 345978		- -	- -	- -				29
30	Siberian wildrye 345600		3 100	1 70	3 63				30
31	Siberian wildrye 2144		- -	- -	- -				31
32	Siberian wildrye 1996		- -	- -	- -				32
33	'Norcoast' Bering hairgrass		5 90	3 90	- -				33
34	Tufted hairgrass 372690		3 100	5 70	- -				34
35	Bluejoint		6 33	7 50	7 30				35
36	'Sourdough' Bluejoint		5 63	5 60	5 60				36
37	Meadow foxtail		- -	- -	- -				37
38	Geniculated foxtail 314565		9 33	- -	- -				38
39	Garrison Creeping foxtail		- -	- -	- -				39
40	'Arctared' Creeping red fescue		5 60	3 100	3 100				40
41	'Boreal' Creeping red fescue		1 100	3 90	5 63				41
42	'Pennlawn' Creeping red fescue		1 90	3 90	3 100				42
43	Rough fescue 236849		1 100	1 100	2 100				43
44	American Sloughgrass T12053		1 100	7 60	- -				44
45	'Durar' Hard fescue		7 30	7 30	8 33				45
46	'Highlight' Sheep fescue		6 60	5 70	5 63				46
47	'Covar' Sheep fescue		3 90	- -	- -				47
48	'Manchar' Smooth Brome		1 90	5 100	3 100				48
49	'Carlton' Smooth Brome		3 90	5 100	3 100				49
50	'Alyeska' Polar grass		1 100	5 70	5 63				50
51	Tilesy Sage T12052		3 90	5 60	3 60				51
	All evaluations based on averages of three replications unless otherwise noted.								52
	* Based on 2 plots.								

Figure 6.

## Conclusions & Recommendations

All the following conclusions and recommendations are based on survival and performance. None of the plots were cut or harvested in any manner, therefore, no yield data or recovery rates have been determined. This is an important factor to consider if this data is used for agricultural application.

- 1) If hay or pasture seedings are attempted in the Kenny Lake area, either 'Carlton' or 'Manchar' Smooth Brome, or Siberian Wildrye should be used. Second choices for species or cultivars could be 'Boreal' or 'Arctared' Red Fescue, and 'Nugget' or 'Park' Kentucky Bluegrass. Further evaluation or trials with Anik Alfalfa are also recommended.
- 2) For revegetation after construction activities or other major disturbances, the following species and varieties should be used: 'Nugget' or 'Park' Kentucky Bluegrass, 'Gruening' Alpine Bluegrass, 'Service' Big Bluegrass and 'Boreal' or 'Arctared' Red Fescue.
- 3) 'Durar' Hard Fescue and 'Garrison' Creeping Foxtail should be dropped from The Revegetative Guide for Alaska as possible cultivars for the Kenny Lake area since they appear to be unsuitable.

APPENDIX I

Cooperators:

- Soil Conservation Service, USDA
- Ken Hoisington
- Bill Sutton
- Kenny Lake Soil & Water Conservation District