NARRATIVE REPORT ROUTING SLIP

REFUGE VALENTINE PERIOD September-December 1962

CHIEF'S OFFICE: Mr. Gillett _____ Mr. Ackerknecht _____

Mr. Fermanich _____ Mr. Goldman _____

WILDLIFE MANAGEMENT: Mr. Banko _____ Mr. Stiles _____

RESOURCE MANAGEMENT: ~~Dr. Henley~~ _____ Mr. Stollberg _____ Mr. Lumb _____

OPERATIONS: Mr. Hickok _____ ~~Mr. Regan~~ _____

PUBLIC USE: ~~Mr. DuMont~~ _____ Mr. Monson _____

ADMINISTRATIVE SERVICES: Miss Baum _____

NARRATIVE REPORT
VALENTINE NATIONAL WILDLIFE REFUGE
VALENTINE, NEBRASKA

SEPTEMBER, OCTOBER, NOVEMBER &
DECEMBER 1962

P-E-R-S-O-N-N-E-L

NELIUS B. NELSON	Refuge Manager
OMER N. SWENSON	Assistant Refuge Manager
R. DUANE KOSS	Wildlife Aid
ARTHUR H. AUFDENGARTEN	Maintenanceman
DEWEY L. BECK JR. (Entered on Duty Dec. 31, 1962)	Refuge Clerk

C-O-N-T-E-N-T-S

NARRATIVE REPORT
VALENTINE NATIONAL WILDLIFE REFUGE
VALENTINE, NEBRASKA

SEPTEMBER, OCTOBER, NOVEMBER & DECEMBER

1962

I. GENERAL

A. Weather Conditions.

	Snowfall	Precipitation This Month	Precipitation Normal		Max Temp.	Max. Temp.
September	____	.98	1.30		93	34
October	____	1.72	1.10		86	18
November	T	T	.56		74	17
December	2.3	.15	.61		64	-6
Total:	2.3	2.85	3.57	Extremes	93	-6
Annual Total	26.15	32.67	18.91			

Precipitation during the period was below normal, however precipitation for the year was almost 14 inches above normal, due to almost 28 inches of rain during the summer. Heaviest snowfall was 1 inch, with no snow on ground at periods end.

No storms or severe weather seemed to make the fall months extra long. Working conditions were generally ideal and one wondered how long it could last.

B. Habitat Conditions.

1. Water. Effects of above normal summer rainfall, with nearly all Refuge Lakes filled to overflow, carried over into this period. Even with below normal precipitation this period, lake levels held at near spillway levels. As evaporation rates and temperatures dropped in early period, many dry potholes again had water as ground water levels rose. This fall rise in the ground water table had a noticeable effect on lake levels as evidenced by higher guage readings after periods of no precipitation.

Interestingly, one of our "problems" during the period was estimating populations of puddle ducks. In our travels about the Refuge, ducks would flush from grassy areas that normally are dry. Ducks were very widely dispersed and seemingly could be found in most any depression.

2. Food and Cover. Production of the better aquatic duck foods was excellent. When fall migrants began arriving, "the table was set in banquet portions". With no cultivated crops, food for waterfowl must be provided by the water areas in this area.

Aquatic transects were run this year on Hackberry, Rice, Dewey, Whitewater, Pelican, Watts, Clear and Willow lakes. Results of lake renovation can best be described as unbelievable, with beds of sago producing abundantly where little or none was recorded before removal of the Carp. The Carp definitely must go, especially in our waters that we expect to produce waterfowl. Ducks showed their appreciation by feeding extensively on Whitewater, Dewey, Clear and Willow lakes. These lakes were seldom used by ducks when Carp populations were high.

Deciduous specie of food plants such as Chokecherry, Red Haw, Wild Plum, Buffalo Berry, Russian Olive and Red Cedar produced bumper crops of fruit. In fact, the Wild Rose produced so abundantly back in the rough sandhills that it adversely effected Sharptail grouse hunting for the "meadow driver" type of hunter.

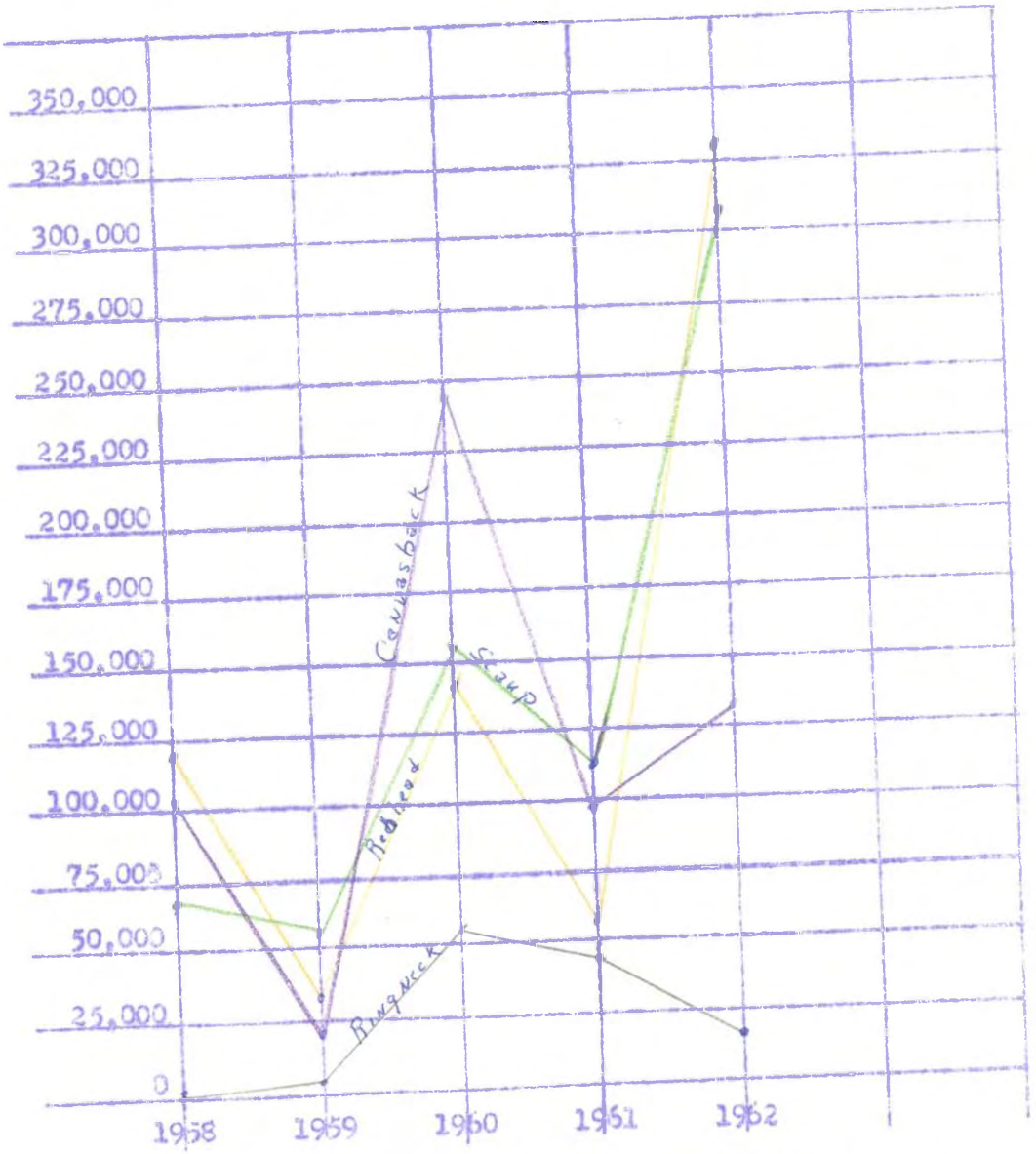
The lush grass growth the past season, together with an abundance of food, should bring all specie through the winter in good condition. Brushy cover, while not plentiful, is common and well distributed and should provide adequate protection during inclement weather periods.

II WILDLIFE

A. Migratory Birds. Waterfowl use during the period was 2,730,835 days, as compared with 3,007,690 days last year. This is probably not a true indication of numbers in the general area. Ducks were widely dispersed this year with good water; whereas most of the ducks in the area last year likely were forced to the Refuge to find water.

The peak population of 53,975 was reached on the 28th of October. There was no mass migration as such. The composition of ducks was constantly changing, but numbers remained in the 20 to 30 thousand range from the beginning of the period until late November. Several hundred were still trying to keep pockets open when general freezeup came on December 6th.

One encouraging note worthy of mention is the increase noted among the diving ducks. Use days by Redhead, Canvasback, Scaup and Bufflehead were all up. Large concentrations of especially Redhead and Canvasback were noted for several weeks on Hackberry, Whitewater and the Marsh lakes. The graph below shows a comparison of use days by the diving specie during the last five years. It is interesting to note that populations rise and fall together. The one exception is the Ringneck use which in 1962 was down. This is believed to be due to difficulty of identification by observers. The improvement in aquatics undoubtedly increased use this year.



A SUMMARY OF DUCK USE DAYS BY SEVERAL DIVING SPECIE

AT VALENTINE REFUGE

The closest to a massed migration noted was a flight of about 15,000 Shovelers that arrived November 1st and were gone a week later. The only awareness of a migration was the gradual and continual shift in specie composition. It seemed flocks were gradually leaving the Refuge only to be replaced by others. Each specie showed a gradual buildup and a gradual decline in numbers, with no large movement except as mentioned above. The "northern flight" the old-timers talk about was non-existant this year.

Coot. Coot were conspicuous by their absence the previous period, but arrived in numbers (27,000) September 16th. Numbers remained at this level until mid-October, then tapered to none by months end. Overall use was about the same as last year.

Canada Goose Project. Thirty-five flying geese, presumably released birds, regularly visited the Pony lake pens early in the period. If this group is the same as the 27 reported last year we can assume some increase. The pen hatched geese received from C. Stutz of Jamestown met misfortune after misfortune in spite of continuous predator trapping around the Pony Lake goose pens where they were held. Of 25 geese originally received only 8 remain. One died the night after arrival at the Refuge, a mink killed 12 a week later, and an eagle has accounted for 4 more this fall. Plans are being made to construct a smaller pen that can be predator proofed, top and sides, with hardware cloth.

White Pelicans. Pelicans were common in the early part of the period, as they had been during the summer months. Clear, Willow and Dewey lakes were most commonly used. The abundance of Mudpuppies (Necturus Maculosus) in these lakes after renovation is believed to provide them with plentiful food. Cormorant numbers were down, probably due to the absence of the Carp bonanza of the previous year.

B. Upland Game Birds. Conditions were excellent during the entire period, although numbers are down from a year ago. The heavy rainfall during the nesting and brooding season is believed to had an adverse effect on numbers. Hunting pressure in the area surrounding the Refuge was medium heavy, but hunters complained of not finding birds except in rough sandhills. Plentiful food everywhere kept birds well scattered. Very little flocking on meadows was noted until late in November.

Prairie Chickens. The outlook for Prairie Chicken is favorable, since the elevated feeders seem to be preventing migration to agriculturally cropped areas, where we believe losses to poaching are high. An additional elevated feeder was constructed and placed in SW G-33 during the season.

Sharptailed Grouse. The population of Sharptailed Grouse is down, due principally to severe weather during the nesting and brooding season. However, with a favorable winter, a good nesting season next year should bring a large increase. To the end of the period, food and cover conditions have been excellent.

Ring-necked Pheasant. Pheasants are common but believed down somewhat due to poor nesting season. For some reason they seem concentrated on the Refuge with very few outside. No active management of the population is planned since pheasants are primarily a bird of areas with some agriculturally cropped land.

C. Big Game Animals. The Refuge deer herd continues to thrive, with the estimated number approaching 400 animals. As previously reported, the White-tail seem to be increasing more rapidly than the Mule deer. Sightings by Refuge personnel indicate that White-tail numbers will soon surpass the Mule deer. The writer has on two occasions seen White-tail does accompanied by three fawns. All Refuge deer are plump and, barring any extreme weather of long duration, should be in excellent condition for a good fawn crop next year.

Antelope. Most of the antelope released on the Refuge are believed to have migrated elsewhere. No sightings by Refuge personnel during the period. The only reported sighting being by Permittee Harms, who reported seeing three kids early in the period. It is believed by Manager Nelson and this writer that antelope prefer firmer ground than the soft sands present here, and that they will seek habitat more to their liking.

D. Fur Animals, Predators, Rodents and Other Mammals. Mink seem scarce, with only two sightings during the previous two periods. Beaver are becoming a nuisance, and unless trappers can be interested in trapping, Refuge personnel will be forced to spend time removing some of these animals. (Several trappers have inquired, but seem interested only in trapping Muskrat.) Skunk and Badger are occasionally seen and the former is disposed of whenever opportunity presents itself. Several Raccoon have been removed by Refuge personnel, but need a vigorous trapping program to cut down increasing numbers. Coyotes are seen and heard occasionally, but are not believed to be present in harmful numbers. Predator Control Agent McDaniel satisfied one rancher's complaint by removing several Coyotes from the south part of the Refuge and adjacent lands. We find no past record of Oppossum on the Refuge, but several sightings have been reported by Refuge personnel in the early part of the period. Also, one road killed Oppossum was found near Natural Area No. 1 turnoff.

Pocket Gophers, Moles and Kangaroo Rats appear to be increasing. Many meadows are literally covered with gopher mounds. An experimental treatment with a burrow building machine along the oil mat road to Pelican lake to prevent burrowing under mat was done in October, also several acres of Duck lake meadow and Headquarters airstrip were treated. If this proves successful, extensive acreages will be treated during 1963.

E. Hawks, Eagles, Owls, Crows, Ravens and Magpies. No concentrated migration of hawks has been noted. Species commonly seen include; Swainson's, Marsh Hawk and American Roughleg. Hawks observed on limited occasions are; Prairie Falcon, Ferruginous and Pigeon Hawk. Golden Eagles are commonly observed, but no Bald Eagles were noted. Great Horned Owls are common but not believed serious. Crows are commonly seen, but only in small groups. Magpies are regularly seen, but are not believed to be increasing.

F. Other Birds. Horned larks are numerous and regularly seen along roads and trails. Oregon juncos are common at Headquarters and Sub-headquarters. Snow bunting and Chickadees are present but not commonly observed. A group of about 20 Eastern robins, evidently in late migration, spent most of December 14th at Pelican lake Sub-headquarters. A lone Mourning Dove was observed near the Hackberry picnic area in early December. Several Red shafted Flickers were occasionally seen throughout the period.

G. Fish. Watts lake produced excellent catches of Northern pike and large Perch until freezeup. Duck lake and West Long were yielding good catches of small

Large mouth Bass and Bluegills. All lakes are closed to fishing during the duck hunting season. No other Refuge lakes are receiving any fishing pressure due to quality of access. Modern automobiles cannot be depended upon for transportation on our soft sand trails, and modern fishermen won't walk, so pressure is confined to lakes with good access. As was previously mentioned, lake levels are high and no winter kill is anticipated unless heavy snow cover blankets the ice for an extended period. Ice is about 6" to 7" thick and clear at end of period.

Carp eradication of Clear and Willow lakes, completed a year ago, appears to have been successful. Sample netting by Fishery Management Services last period produced no Carp in Clear or Willow lakes. Dewey and Whitewater lakes were renovated in 1960 and no Carp have been observed in Dewey, but young of the year Carp (37) were found in a Whitewater sample netting. Apparently a complete kill was not achieved or reinfestation has occurred from overflow from Pelican lake. Sampling also produced young of the year Carp in Watts and potholes below West Long lake. This year's abnormal rainfall (25.61 inches during period May 12-July 15) caused an unusual amount of flow between lakes. It appears we are fighting a losing battle with the Carp until such time as funds are made available to erect controls and Carp barriers that will prevent reinfestation of renovated lakes. This battle with the Carp must be won before maximum aquatic food production is possible on a waterfowl Refuge.

H. Reptiles. No Rattlesnakes and few Bullsnakes were observed during the period. Snapping turtle populations continue at a low level since extensive trapping of 1960.

III REFUGE DEVELOPMENT & MAINTENANCE

A. Physical Development.

Quarters Number 1.

Installed a new underground oil storage tank for the furnace. Utility room was remodeled with new floor and painted walls. The living room and storeroom were painted. A set of new clothesline poles were constructed and put in place.

Quarters Number 2.

The furnace room was painted.

Pelican Lake Sub-headquarters.

Filled and leveled holes in the driveway. The back entrance was finished inside with plasterboard, painted and linoleum placed on the floor.

Pony Lake Sub-headquarters.

Installed a surplus radio base set and erected a 50' radio tower with "whip" antenna. Six of the smaller outside buildings were painted.

Quarters Number 5--Student Trainee Cabin.

Several windows and door were replaced. Completely insulated and finished with plasterboard. Hauled black dirt, leveled and seeded lawn.

Headquarters Area.

Installed frost-free hydrant at the horse barn. All servicing and maintenance of Refuge vehicles was done as needed in the Refuge shop.

General.

Mowed strips between newly planted trees at Hackberry development area to curb mouse activity and girdling of young trees. Filled all holes and "blow-outs" in Clear lake dike with D-4 and Traxcavator. Holes and "blow-outs" repaired on 4½ miles of Hackberry-Dewey trail. Continuous trapping around Pony lake goose pens netted several Skunk and Raccoon. An additional elevated grouse feeder was built and set on southwest G-33.

B. Plantings. None this period.

C. Collections and Receipts. None

D. Control of Vegetation. None this period. Annual report attached.

E. Planned Burning. None

F. Fires. Trash at the dump ground ignited about 6 P.M. on September 18th. Believed started by trash barrel hauled out in the morning. Confined to dump ground--no economic loss.

IV RESOURCE MANAGEMENT

A. Grazing. After a delayed start in May, until the rain came, summer grazing was excellent. Most of the Units are in prime condition. Several problem units are slated for fall and winter use or complete deferrment for one year. Permittees are generally cooperative but occasionally one may get a little independent and have to be straightened out.

B. Haying. No haying was allowed until August 1st and few permittees did any cutting until after August 15th, since many meadows were still flooded in late July. Haying continued through most of September with excellent yields even though quality was down, due to advanced maturity of the grass. Some permittees felt they should be allowed to mow higher on hillsides due to wet low ground. This was not allowed. No mowing is allowed on hillsides or tops.

Another open Fall and early Winter with mild temperatures has seen very little hay fed by period's end; so some permittees will undoubtedly have carryover hay. A maximum of twenty five percent carryover is allowed.

Grazing use totaled almost 45,000 AUM's with total grazing income of over $72,000 this calendar year. The drought conditions of late 1961 and early 1962 resulted in less grazing use due to earlier removal of cattle and almost a two week delay in turn-in date this Spring.

Income during the year 1963 should be up considerably due to excellent growing year of 1962 and an expected increase in grazing rate of about 15 cents per AUM. Grazing rates here are tied to beef prices, and with the higher prices enjoyed by ranchers this year, they are expecting an increase next year.

C. Fur Harvest. A trapping program was set up for 1962, but no trappers have shown enough interest to go to work. We are especially interested in thinning the nuisance Beaver population. It may be necessary to use Refuge personnel in some cases of predator and Beaver damage to do the trapping.

D. Timber Removal. None.

E. Commercial Fishing. None.

F. Other Uses. None.

V FIELD INVESTIGATION OR APPLIED RESEARCH

A. Aquatic Transects. As previously referred to under I-B, (Habitat Conditions) aquatic transects were run during the previous period and results are little short of unbelievable. The renovated lakes have conclusively proven to us that Carp and waterfowl do not thrive in the same habitat.

B. Grouse Study Project. With Student Trainee Kobriger attending classes at the University of Missouri, the Grouse project was inactive during this period. Two road killed grouse were dissected and the crop and gizzard contents sent to Mr. Kobriger for analysis. Observations of grouse by Refuge personnel have been recorded for use in his study. Mr. Kobriger will return to the Refuge about February 1, 1963 to complete work on his Masters Thesis. The project, when completed, will add knowledge concerning the food and habitat of Sharptail grouse that may help in the management of this important game specie.

C. Snapping Turtle Data. No observations of turtle predation noted during the period.

D. Carp Control. No plans at present for further lake renovation, except possible rotenone treatment of spawning Carp on a trial basis. The State of Nebraska seining crew may pull seines under the ice on Hackberry lake next period to remove Carp if their work schedule permits.

VI PUBLIC RELATIONS

A. Recreational Uses. Sport fishing was the most important use on the Refuge. Excellent catches of Northern pike and Perch were commonplace at Watts lake throughout the period. No fishing is allowed on the Refuge during duck hunting season. Good catches of Sunfish and Large mouth bass came regularly from Duck and West Long lakes. Little fishing pressure is exerted on other Refuge waters.

Other uses include occasional Sunday afternoon visitors, picnics at the Hackberry picnic area and a few bird watchers.

B. Refuge Visitors. (List attached).

C. Refuge Participation. Refuge personnel assisted at Fort Niobrara with the fall Longhorn and Buffalo roundups, branding and the Longhorn auction sale.

September 14--Manager Nelson, Asst. Manager Swenson and Wildlife Aid Koss attended a meeting and banquet of Nebraska Section, American Range Management Society at Halsey, Nebraska.

September 29-30--Refuge Personnel prepared and manned a display booth at the Nebraska State Soil and Water Conservation Convention at Valentine, Nebraska. Over 1800 persons visited the display and many stopped to cuss and discuss wildlife conservation with the employee tending the display. Manager Nelson, Asst. Manager Swenson and Wildlife Aid Koss rotated duty during the open hours of the display.

October 4-5--Manager Nelson and Asst. Manager Swenson attended the Cannon Net Trapping Training Sessions at the Swan Lake Refuge.

D. Hunting. No hunting on the Refuge. Area Patrols in the surrounding area turned up 5 duck hunters on opening day. Ducks received very little pressure in this area. Grouse hunting pressure was moderate, with good success for hunters who would hike into the rougher sandhills. Very few pheasants were shot in this area.

E. Violations.

October 9--C. E. Dilsaver, Rose, Nebraska. Pleaded guilty to using outboard motor on Refuge lake--fined $10 and $4.50 costs in Cherry County Court.

October 27-W. Murphy, Valentine, Nebraska. Investigated telephone report of over duck limit--turned over to Nebraska Conservation Officer Jack Morgan. Pleaded guilty and was fined $10 and $4.50 costs in Cherry County Court.

F. Safety Meetings. Regular Safety Meetings were held monthly during the period. Assistant Supervisor Huenecke conducted a safety meeting during inspection trip and emphasized that planning and safety consciousness are most important when starting any new or unfamiliar job.

VII OTHER ITEMS

A. Items of Interest. Dewey Beck Jr. of Newport, Nebraska reported to duty December 31, 1962 and is being initiated by typing this report.

B. Photographs. By Refuge Manager Nelius B. Nelson or Assistant Refuge Manager Omer N. Swenson.

C. Credits. This Narrative Report was prepared by Assistant Refuge Manager Omer N. Swenson.

Submitted by:

Nelius B. Nelson
(Signature)

Nelius B. Nelson

Refuge Manager
(Title)

Date: JAN 23 1963

Approved, Regional Office:

Date: 1/29/63

(Signature)

Regional Refuge Supervisor
~~Chief, Division of Wildlife~~

OFFICIAL VISITORS LOG

DATE	NAME	ORGANIZATION	PURPOSE OF VISIT
9/7/62	Merkel	SCS	Unit Range Conservationist
9/7/62	Lowe	SCS	Range Conservationist
9/8/62	George & Jeanie Treichel		Visit
9/10/62	H. M. Morgan	FWS	Visit--Delivery
9/10/62	J. E. Morgan	Nebr. State Game Commission	Visit
9/11/62	Norman C. Johnson	Rodent & Predator Control	Coyote Control
9/11/62	Leonard L. McDaniel	Mammal Control Agent	Coyote Control
9/17/62	Howard Huenecke	Bur. Sport Fisheries & Wildlife	Refuge Inspection
9/17/62	D. B. McCarrahar	Nebr. State Game Commission	To Obtain Wildlife Data
9/17/62	Nick Lyman	Nebr. State Game Commission	To Obtain Wildlife Data
9/17/62	Gerald Chaffin	Nebr. State Game Commission	Pick up Equipment used by SCS
9/17/62	Basil C. Lee	GSA	Official
9/18/62	Ira N. Gabrielson	Wildlife Management Institute	See the Refuge
9/18/62	Paul Todd		
9/27/62	Dick Peckham	Nebr. State Game Commission	Return Cabin Key
9/27/62	Norman Johnson	Rodent & Predator Control	Predator Control

OFFICIAL VISITORS LOG

DATE	NAME	ORGANIZATION	PURPOSE OF VISIT
9/27/62	G. H. Hanson	PRC- Reg. Supervisor	Predator Control
9/27/62	Howard Merril	PRC-Assistant Chief	Visit
9/27/62	Mark D. Worcester	PRC-District Agent	Predator Control
10/1/62	Strohm	Ford Almanac Editor	See the Refuge
10/2/62	Robert L. Jones	SCS	SCS
10/3/62	Leonard McDaniel	Rodent & Predator Control	Coyote Control
10/10/62	Jack Morgan	Conservation Officer, Nebr. State Game Commission	Routine Business
10/27/62	Jack Morgan	Conservation Officer, Nebr. State Game Commission	Routine Business
10/27/62	Mark D. Worcester	USFWS	Predator & Rodent Control
10/27/62	Howard A. Merrill	USFWS	Predator & Rodent Control
10/27/62	Norman Johnson	USFWS	Predator & Rodent Control
10/27/62	G. H. Hanson	USFWS	Predator & Rodent Control
10/30/62	Richard Finley	USFWS-LaCreek Refuge	Return vehicle
11/1/62	Ackerknecht, Asst. Chief	USFWS-Branch of Refuges	Inspection of Refuge
11/5/62	Bob Lowe	SCS	Public Relations
11/5/62	Keith S. Hamel	USFWS-Crescent Lake Refuge	Clerk Vacancy Position

OFFICIAL VISITORS LOG

DATE	NAME	ORGANIZATION	PURPOSE OF VISIT
11/27/62	Harvey Miller	USFWS-Lake Andes Refuge	Biological Projects
12/7/62	Jack Adams		Trapping
12/7/62	Gary L. Bush		Trapping

3-1750
Form NR-1
(Rev. March 1953)

WATERFOWL

REFUGE Valentine Refuge MONTHS OF September TO December, 1962

(1) Species	(2) Weeks of reporting period: 9/2-9/8 (1)	9 - 15 (2)	16 - 22 (3)	23 - 29 (4)	9/30-10/6 (5)	7 - 13 (6)	14 - 20 (7)	21 - 27 (8)	10/28-11/3 (9)	4 - 10 (10)
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada	90	90	90	90	90	90	90	90	130	90
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard	4000	4250	3750	4000	4500	4500	8000	10500	16000	16000
Black										
Gadwall	3500	3700	2000	2200	2200	1900	1500	500	1500	800
Baldpate	1200	1500	11000	11000	9000	3000	2200	2200	2200	1550
Pintail	750	800	2200	2300	3500	8000	6500	6500	3300	1100
Green-winged teal	30	30	120	150	150	150	150	400	1700	200
Blue-winged teal	2500	1700	2500	800	600	200	200	100	25	- -
Cinnamon teal										
Shoveler	400	400	500	500	800	1100	1400	1600	14500	2300
Wood										
Redhead	500	500	1700	1700	1900	4500	14000	14000	6200	1800
Ring-necked					100			75	850	200
Canvasback	125	125	125	150	250	3000	4500	3500	3100	3000
Scaup	300	300	3000	3000	3200	2000	2200	2200	2600	2500
Goldeneye						250	400	400		
Bufflehead						800	800	600	1900	1500
Ruddy	750	750	750	750	650	200	200	100	100	25
Other										
Common Merganser										200
Coot:	1200	1200	27000	27000	27000	27000	22000	7500	200	

INT.-DUP., D.C.-53824-59

3 -1750a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Valentine Refuge MONTHS OF September TO December, 1962

(1) Species	(2) Weeks of reporting period: 11/11-17 (11)	18 - 24 (12)	11/25-12/1 (13)	2-8 (14)	9 - 15 (15)	16 - 22 (16)	23 - 29 (17)	(18)	(3) Estimated waterfowl days use	(4) Production: Broods seen	Estimated total
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada	90	80	42	40	40	40	40		9184		
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard	12000	11000	8000	3000	150				767,550		
Black											
Gadwall	800	800	200						151,200		
Baldpate	400								316,750		
Pintail	800	200							251,650		
Green-winged teal	200	1000	1100	200					39,060		
Blue-winged teal									60,375		
Cinnamon teal											
Shoveler	2200	2200	1400	100					205,800		
Wood											
Redhead	500								331,100		
Ring-necked	400	200	200						14,175		
Canvasback	850	400	100						134,575		
Scaup	6000	7500	7000	2500					310,100		
Goldeneye	500	600	600	100					19,950		
Bufflehead	3000	1500	1200	400					81,900		
Ruddy	125	125	75						32,300		
Other											
Common Merganser	400	700	700	50					14,350		
Coot:									972,300		

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans			
Geese	9,184	130	
Ducks	2,730,835	53,975	
Coots	972,300	27,000	

SUMMARY

Principal feeding areas Hackberry, Pelican, Dewey, Whitewater and Marsh Lakes

Principal nesting areas

Reported by

Assistant Refuge Manager

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.

(2) Weeks of Reporting Period: Estimated average refuge populations.

(3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.

(4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(5) Total Days Use: A summary of data recorded under (3).

(6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.

(7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C. 37944
1953

3-1751
Form NR-1A
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge Valentine Months of September to December 1952

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Eared grebe										100
Western grebe										100
Pied-billed grebe										350
White pelican										2500
Double-crested cormorant										600
Great blue heron										250
Black-crowned night heron										700
American bittern										100
II. Shorebirds, Gulls and Terns:										
Killdeer										100
Wilson's snipe										100
Upland plover										200
Spotted sandpiper										common
Pectoral sandpiper										40
Baird sandpiper										20
Western willet										30
Greater yellow-legs										common
Lesser yellow-legs										175
Long-billed dowitcher										200
Wilson's phalarope										100

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove	Summer Resident		1 12/5/62		
White-winged dove					
IV. Predaceous Birds:					
Golden eagle	Winter Resident		Winter Resident		20
Duck hawk	Winter Resident		Winter Resident		0
Horned owl	Winter Resident		Winter Resident		35
Magpie	Winter Resident		Winter Resident		50
Raven					
Crow	Winter Resident		Winter Resident		550
Bald Eagle	Winter Resident		Winter Resident		5
Shorebirds, Gulls & Terns(Cont'd)					
Herring gull	Summer Migrant				10
Franklin's gull	Summer Resident				500
Ring billet gull	Summer Resident				4000
Forester's tern	Summer Resident				150
Black tern	Summer Resident				550

Reported by.....

INSTRUCTIONS

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

INT.-DUP. SEC., WASH., D.C.

59317

3-1752
Form NR-2
(April 1946)

UPLAND GAME BIRDS

Refuge ~~Valentine~~ Months of ~~September~~ to ~~December~~, 19~~62~~

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re-stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Sharptail Grouse	59,000								2,800	Birds widely dispersed during hunting season
Prairie chicken	59,000								75	Elevated feeders used extensively
Ring-necked pheasant	59,000								2,000	Heavy rains during brooding season

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES: Use correct common name.

(2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.

(4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.

(5) REMOVALS: Indicate total number in each category removed during the report period.

(6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.

(7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

3-1753
Form NR-3
(June 1945)

BIG GAME

Refuge Valentine Calendar Year 1962

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population		(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re-stocking	Sold	For Research	Predation	Disease	Winter Loss	Number	Source	At period of Greatest use	As of Dec. 31	
Mule deer	59,000 plus of Sandhills grazing land	40											210	
White-tailed deer	59,000 plus of Sandhills grazing land	60											175	
Antelope	59,000 plus of Sandhills grazing land	5											30	

Remarks: In an area with predominantly mule deer habitat, we are at a loss to explain how white-tails are increasing faster than mule deer.

Reported by _____

INSTRUCTIONS

Form NR-3 - BIG GAME

(1) SPECIES: Use correct common name; i.e., Mule deer, black-tailed deer, white-tailed deer. It is unnecessary to indicate sub-species such as northern or Louisiana white-tailed deer.

(2) DENSITY: Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge: once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated total number of young produced on refuge.

(4) REMOVALS: Indicate total number in each category removed during the year.

(5) LOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.

(6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.

(7) TOTAL REFUGE POPULATION: Give the estimated population of <u>each</u> <u>species</u> on the refuge at period of its greatest abundance and also as of Dec. 31.

(8) SEX RATIO: Indicate the percentage of males and females of each species as determined from field observations or through removals.

116008

3-1755
Form NR-5
60701

DISEASE

Refuge Valentine Year 19 62

Botulism

Period of outbreak None

Period of heaviest losses None

Losses:

	Actual Count	Estimated
(a) Waterfowl		
(b) Shorebirds		
(c) Other		

Number Hospitalized	No. Recovered	% Recovered
(a) Waterfowl		
(b) Shorebirds		
(c) Other		

Areas affected (location and approximate acreage)

Water conditions (average depth of water in sickness areas, reflooding of exposed flats, etc.

Condition of vegetation and invertebrate life

Remarks

Lead Poisoning or other Disease

Kind of disease None

Species affected None

Number Affected Species	Actual Count	Estimated

Number Recovered

Number lost

Source of infection

Water conditions

Food conditions

Remarks

PUBLIC USE

Refuge Valentine Calendar Year 1962

Total Use Visitor-Days	Hunting Use	Fishing Use	Miscellaneous Use
8750	None	2200	6550

Where practical, by means of occasional spot checks, or other methods, show by percent and visitor-days the breakdown of the above figures and other related information:

Hunting (on refuge lands):	Percent	Visitor-Days	Acres
Waterfowl		None	
Upland Game		None	
Big Game		None	

Supervised by refuge _____ by State _____ No. of blinds ___

Miscellaneous:	Percent	Visitor-Days
Recreation *	30	2,600
Official	5	350
Economic Use	65	5,800
Other Total	100	8,750

Hunting (off refuge lands): Estimated man-days of hunting on lands adjacent to the refuge 100 (These figures should not be included in hunting-use totals above).

Comments:

Fishing:

Acres of ponds or lakes 9,578 and miles of streams 3,210 open to fishing.

*(including picnicking, swimming, boating, camping, viewing wildlife, and photographing)

3-1757
Form NR-7
(Rev. June 1960)

NONAGRICU RAL COLLECTIONS, RECEIPTS, AN PLANTINGS (1)

Refuge Valentine Year 19 62

	Collections and Receipts (Seeds, rootstocks, trees, shrubs)						Plantings (Marsh - Aquatic - Upland)						
Species	Amount (Lbs., bus., etc.)	(2) C or R	Date	Method or Source	Cost	(3) Total Amount on Hand	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount and Nature of Propagules	Date	Survival	Cause of Loss
Red Cedar	1,750						Picnic area and east of Headquarters yard.	2,500 per acre		Seedlings	5/8	95%	Machine Planted
Purple Willow	100												
Box elder	1,950												
Black Locust	1,150												
Sand Cherry	175												
G. Willow	1,875												
Cottonwood	1,050												
C. Elm	1,500												
Plum	100												
Autumn Olive	100											60%	Poor Stock

(1) Report agronomic farm crops on Form NR-8
(2) C = Collections and R = Receipts
(3) Use "S" to denote surplus

Total acreage planted:
Marsh and aquatic _____
Hedgerows, cover patches _____
Food strips, food patches _____
Forest plantings 5 Acres

Remarks: Trees are for the new picnic area on the North side of Hackberry Lake and for shelter of Headquarters. All plantings were in a shelter belt pattern--provides food and shelter for birds, especially Grouse and Pheasants during the winter months.

76148

3-1758
Form NR-8
(Rev. Jan. 1956)

Fish and Wi ife Service Branch of Wil fe Refuges

CULTIVATED CROPS - HAYING - GRAZING

Refuge Valentine County Cherry State Nebraska

Cultivated Crops Grown	Permittee's Share Harvested		Government's Share or Return				Total Acreage Planted	Green Manure, Cover and Water-fowl Browsing Crops Type and Kind	Total Acreage
			Harvested		Unharvested				
	Acres	Bu./Tons	Acres	Bu./Tons	Acres	Bu./Tons			
None									
								Fallow Ag. Land	

No. of Permittees: Agricultural Operations None Haying Operations 26 Grazing Operations 24

Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Number Animals	AUM'S	Cash Revenue	ACREAGE
Hay fed on AUM basis (All Native Grasses with some Legume interseeding).				1. Cattle	30,753	44,845.80	72,163.50	56,809
				2. Other				
				1. Total Refuge Acreage Under Cultivation				None
Hay - Wild				2. Acreage Cultivated as Service Operation				---

DIRECTIONS FOR PREPARING FORM NR-8
CULTIVATED CROPS - HAYING - GRAZING

Report Form NR-8 should be prepared on a calendar-year basis for all crops which were planted during the calendar year and for haying and grazing operations carried on during the same period.

Separate reports shall be furnished for Refuge lands in each county when a refuge is located in more than one county or State.

Cultivated Crops Grown - List all crops planted, grown and harvested on the refuge during the reporting period regardless of purpose. Crops in kind which have been planted by more than one permittee or this Service shall be combined for reporting purposes.

Permittee's Share - Only the number of acres utilized by the permittee for his own benefit should be shown under the Acres column, and only the number of bushels of farm crops harvested by the permittee for himself should be shown under the Bushels Harvested column. Report all crops harvested in bushels or fractions thereof except such crops as silage, watermelons, cotton, tobacco, and hay, which should be reported in tons or fractions thereof.

Government's Share or Return - Harvested - Show the acreage and number of bushels harvested for the Government of crops produced by permittees or refuge personnel. Unharvested - Show the exact acreage and the estimated number of bushels of grain available for wildlife. If grazing is made available to waterfowl through the planting of grain, cover, green manure, grazing or hay crops, estimate the tonnage of green food produced or utilized and report under Bushels Unharvested column.

Total Acreage Planted - Report all acreage planted, including crop failures.

Green Manure, Cover and Waterfowl Grazing Crops - Specify the acreage, kind and purpose of the crop. These crops and the acreage may be duplicated under cultivated crops if planted during the year, or a duplication may occur under hay if the crop results from a perennial planting.

Hay - Improved - List separately the kinds of improved hay grown. Annual plantings should also be reported under Cultivated Crops, and perennial hay should be listed in the same manner at time of planting.

Total Refuge Acreage Under Cultivation - Report total land area devoted to agricultural purposes during the year.

INT.-DUP. SEC., WASH., D.C. 91767

3-1570
NR-8a

REFUGE GRAIN REPORT

Refuge Valentine Months of January through December, 1962

(1) Variety*	(2) On Hand Beginning of Period	(3) Received During Period	(4) Total	(5) Grain Disposed of				(6) On Hand End of Period	(7) Proposed or Suitable Use*		
				Transferred	Seeded	Fed	Total		Seed	Feed	Surplus
Shelled Corn (bu.)	190	325	515			300	300	215		215	
Wheat (bu.)	200	0	200			50	50	150		150	
Rabbit Pellets (lb)*	975	0	975			700	700	275		275	
Alsike Clover (lbs)	50	0	50		50		50	0			
Bluegrass (lbs)	30	0	30		30		30	0			
Crested Wheat (lbs)	50	0	50					50	50		
Grower Pellets (lbs)		150	150			150	150	0			

*Goose Feed

(8) Indicate shipping or collection points Received 325 Bu. Corn, DeSota Refuge, Blair, Nebraska

(9) Grain is stored at Remy Lake and Headquarters Granaries.

(10) Remarks

*See instructions on back.

NR-8a

REFUGE GRAIN REPORT

This report should cover all grain on hand, received, or disposed of, during the period covered by this narrative report.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)—55 lb., corn (ear)—70 lb., wheat—60 lb., barley—50 lb., rye—55 lb., oats—30 lb., soy beans—60 lb., millet—50 lb., cowpeas—60 lb., and mixed—50 lb. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels.

(1) List each type of grain separately and specifically, as flint corn, yellow dent corn, square deal hybrid corn, garnet wheat, red May wheat, durum wheat, spring wheat, proso millet, combine milo, new era cowpeas, mikado soy beans, etc. Mere listing as corn, wheat, and soybeans will not suffice, as specific details are necessary in considering transfer of seed supplies to other refuges. Include only domestic grains; aquatic and other seeds will be listed on NR–9.

(3) Report all grain received during period from all sources, such as transfer, share cropping, or harvest from food patches.

(4) A total of columns 2 and 3.

(6) Column 4 less column 5.

(7) This is a proposed break-down by varieties of grain listed in column 6. Indicate if grain is suitable for seeding new crops.

(8) Nearest railroad station for shipping and receiving.

(9) Where stored on refuge: "Headquarters granary," etc.

(10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.

PEST PLANT CONTROL REPORT

Valentine Refuge, Calendar Year 1962

(To be inserted in the September-December Narrative Report.)

Plot No.	Acres	Species Treated	Growth Stage	Date of Treat.	Chem. or Method Used	Dilut. or Carrier	Rate Per Acre	Water Depth	Cost					% Kill Last Observ.	Date last Observ.
									Material	Labor	Equipment	Total	Per Acre		
✓	.5	Leafy Spurge	Early Bloom	6/27/62	2-4-D Ester	Water	1 lb.	- -	.50	12.00	2.00	14.50	29.00	80%	9/18/62

Recorded 8

INSTRUCTIONS ON REVERSE SIDE

Additional forms will be supplied by Regional Office upon request.

Remarks: Include any important information not given in above columns, including No. of years an area has been treated where repeated treatments have been made.

R3-WC1 - April 20, 1962

INSTRUCTIONS

1. Plot No: Number used to identify the area of infestation in the field and on maps.

2. Acres: Use decimals, not fractions.

3. Species Treated: Use common and scientific names. LIST ONE SPECIES - THE PRIMARY ONE.

4. Growth Stage: i.e., Bud, half leaf, full leaf, early flower, full flower, etc.

5. Date of Treatment: Dates applications were made, using a separate line for each area treated. If more than one treatment is made on the same area during the summer, a separate line is used for each application.

6. Chemical or Method Used: Show type of herbicide; i.e., 2,4-D ester, etc., also mechanical methods (mowing, plowing, burning etc.)

7. Diluent or Carrier: Show diluent or carrier used plus stickers, spreaders, etc.

8. Rate Per Acre: Give lbs. acid equivalent per acre - not lbs. of herbicide or total mix. Check the label for % of acid equivalent.

9. Water Depth: Give depth in inches.

10. Cost, Material: Include herbicide and carrier.

11. Cost, Labor: Take from Application form.

12. Cost, Equipment: Take from Application form.

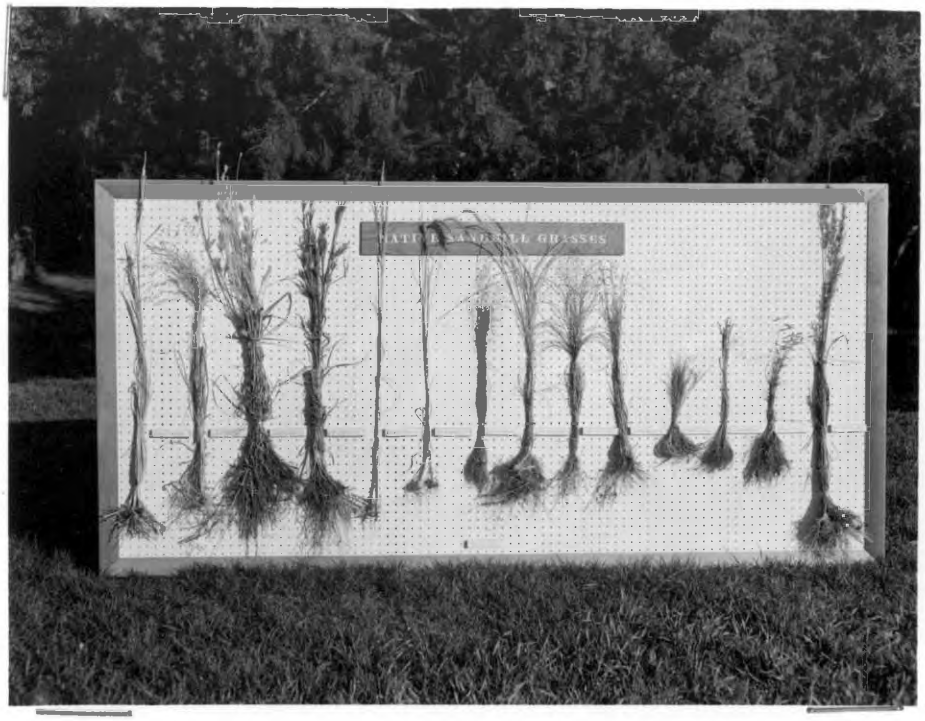
13. Total Cost: Take from Application form.

14. Cost per Acre: Take from Application form.

15. % Kill: Show percent dead plants with no regrowth showing at last observation.

16. Date Last Observation: Last date plants were checked following mechanical treatment or application of herbicide. If the same area is treated more than once during the same season, a new entry should be made on a separate line for each separate treatment. If the same area has been treated for several years, this should be shown in the space for remarks, giving the number of years the area has been treated.

Part of group at Range Society tour at Halsey, Nebraska. Range Management is an important part of our job at this station. R-54-7 Sept. 14, 1962 NBN



Grass display board prepared by station personnel and on display in Refuge office. R-58-2 Oct. 1, 1962 NBN

Ranchers and farmers from all Nebraska counties took part in noon luncheon tour at Brown Ranch bordering Refuge as part of Nebraska State SCS Convention. R-51-3 Sept. 30, 1962 ONS

State SCS Convention tour at Brown Ranch--cars are lined up two and three abreast. R-52-1 Sept. 30, 1962 NBN

Display booth at Nebraska State SCS Convention constructed in cooperation with Fort Niobrara Refuge. Oct. 1, 1962
Commercial

Display booth showing Valentine Refuge display. Oct. 1, 1962
Commercial

Abundant rainfall resulted in lush stands of tall grasses such as Big and Sand Bluestem, Switchgrass, Lovegrass and Sand Dropseed. R-53-8 Sept. 20, 1962 NBN

Calves are lost to sight in this fall and winter grazing unit north of Dewey Lake. R-53-7 Sept. 20, 1962 NBN

Aerial view of North Marsh Lake looking west. Note windrowed hay to open up extremely dense marsh cover. R-51-1 Sept. 10, 1962 NBN

Duck use on North Marsh Lake. Note dense beds of sago pondweed in foreground. R-50-2 Sept. 18, 1962 NBN

Ducks moving into sago pondweed beds on Hackberry Lake. Heavy growth of sagittaria along shoreline.
R-55-1 Sept. 20, 1962 NBN

Aerial view of west end of Hackberry Lake. Dense submerged aquatics give water a speckled appearance. Refuge Headquarters in background. R-51-2 Sept. 10, 1962 NBN