

BRANCH OF WILDLIFE REFUGES

NARRATIVE REPORT

ROUTING SLIP

DATE Sept. 22, 1952

Mr. Salyer _____

Mr. ~~Dumont~~ PAJ

~~Mr. Krumm~~ UK

~~Miss Baum~~ _____

Section of Operations:

Mr. Ball _____

Dr. Morley _____

Mr. Regan _____

Section of Habitat Improvement:

Mr. Griffith _____

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~~Dr. Bourn~~ WSSB

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Section of Land Management:

~~Mr. Ackerman~~ COA

~~Mr. Davis~~ COA

Stenographers:

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REFUGE Valentine National Wildlife Refuge

PERIOD May - August 1952

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Refuge Manager

Junior Refuge Manager

Refuge Clerk-typist

Maintenance Man (Gen.)

Maintenance Man (Equip.)

NARRATIVE REPORT
VALENTINE NATIONAL WILDLIFE REFUGE
VALENTINE, NEBRASKA

I. GENERAL

- A. Weather Conditions. Weather data from the U. S. Weather Bureau Station maintained at the refuge headquarters are summarized below:

	<u>Precipitation</u>			<u>Temperatures</u>			
	<u>1952</u>	<u>1951</u>	<u>Normal</u>	<u>1952</u>	<u>1951</u>	<u>1952</u>	<u>1951</u>
				Max.	Min.	Max.	Min.
May	4.82	3.43	2.82	90	34	78	28
June	2.20	4.47	2.87	107	48	85	33
July	.95	3.06	3.01	107	45	99	49
August	1.03	6.22	2.17	104	51	93	45
Total	9.00	17.18	10.87				

Following a winter and spring that produced normal precipitation, conditions at the start of the period were very favorable. May featured considerable rainfall, after which the taps were apparently shut off and we entered a summer reminiscent of the hot Nebraska summers featured during the drought years of the '30's.

Temperatures ran consistently high and little moisture fell. Ranchers haying in the vicinity report very little dew during the nights of July and August. During the period temperatures exceeded 100 degrees on a number of days.

- B. Water Conditions. Water levels this spring could be considered maximum for this region, according to reports of old-timers who have been in the country from the time it was settled during the late 1800's and early 1900's. Levels of all lakes are much higher than at any time since the refuge was established. This is readily apparent from the inundation of many trails built during CCC days and also of a number of tree plantings made during those dry days of the '30's.

Flowages from lake chains reported during the previous period continued for the most part well into June. From mid-June on to the close of the period the effects of continued hot weather with little precipitation were very noticeable. The numerous potholes existing this spring diminished steadily in number as the summer progressed. Now only some of the more permanent potholes contain water. Some potholes which supported muskrat populations through the previous winter are now completely dry.

Lake levels commenced to recede somewhat in July and this trend continued at an increasing rate through August. Water losses resulting in reduced lake levels have not been alarming. Most lakes have receded between one and two feet, putting them back to what might be termed normal 'full' stages rather than at overflow level as they have been recently.

During the period Dads Lake was noted to be at overflow level in early June. A trickle of water filtered through a windrow of vegetation on the shore at the east end and flowed east across privately-owned land to the Sweetwater Valley. This flow continued northeast, joining the overflow from the Pony - Center - "21" Lake chain flowing north to Plum Creek.

The Marsh Lakes, which now evidence no drainage, raised to levels inundating the road-fill between North Marsh and Middle Marsh at a number of places. Water also extended to the north boundary fence at several places in that area, precluding travel across the refuge there.

East and West Twin Lakes, which for all practical purposes merge at Highway 83, caused State Highway officials considerable concern as water raised to within 3" - 4" of the highway level. A snowfence wave guard was placed on the shoulders to prevent erosion there. The Dept. of Roads and Irrigation tentatively proposed digging a drain through the hills to the east to South Marsh, allowing the water to recede to a point which would insure the safety of the roadfill, which is over one-quarter of a mile long. This plan was to be submitted to the Engineering Section for consideration.

Willow Lake, which has an outlet structure on its state-owned northeast corner, has been lowered somewhat, but its waters still cover considerable refuge land which was cut for hay four years ago.

- C. Fires. It has been our good fortune to submit a negative report on this section for several periods. However, we have been able to check out our fire equipment this period and obtain a little fire practice.

The refuge fire truck reported to two simultaneous lightning fires near Highway 83 the evening of August 27. One fire burned a hay stack located in a green meadow near Little Hay Lake. The other burned approximately 80 - 90 acres of land in the southwest corner of Grazing Area 19. A stiff, but kindly northwest wind quickly drove this fire from the hills to a mowed meadow on the Sweetwater Valley, where volunteer rancher fire fighters brought it under control. A reverse wind would have resulted in a serious fire, with many sections of hill land lying before it. This fire, although only six miles from Pony Lake subheadquarters, was thirty-five miles from headquarters, where the truck is kept.

On August 31 a rancher moving haystacks into a stackyard on the refuge with two half-tracks started a fire as one half-track backfired and stalled. With burning hay under the half-track and a haystack within a few feet, this fire got started before the backpack pump carried as a safety measure could be put into play. The half-track was towed off by its partner after anxious moments. The wiring was all burned off the half-track. On this fire the refuge fire truck tallied one of the few firsts we achieved in reporting to fires here. Ranchers are so zealous in their efforts to control fire that it is seldom that we are able to beat them to a fire. After the fire, which burned eight stacks, was brought under control, trucks equipped with sprayers and men kept coming in from points up to thirty miles away.

On July 28 a small fire started on Highway 83, apparently by a careless motorist, was noted and put out by a local Valentine man also traveling on the highway.

II. WILDLIFE

A. Migratory Birds

1. Populations and Behavior. Again using the reports of local ranchers who have been in this area for several decades, it appears that nesting waterfowl populations are on a par with any previous good year within the past several decades. This peak undoubtedly coincides with the abundance of water and the hundreds and even thousands of newly created temporary potholes.

Our refuge summer resident waterfowl population has been fairly well canvassed by extensive breeding pair counts and later brood counts which included most of our major lakes and many potholes. Pothole areas where actual counts were not practical were closely examined to determine the numbers of nesting waterfowl present. As a result of the actual counts made, along with other observations, we feel our population estimates to be as accurate as any that have been made heretofore.

In spite of the readily apparent increase in waterfowl numbers, the actual numbers of waterfowl present do not show any great numerical increase over reported numbers for some previous seasons. The increase in waterfowl production in the general Sandhills area, which embraces a large portion of Nebraska, is of course very major, since a proportionately large number of temporary water bodies occurred this year through the entire sandhills region. This is the production readily apparent to the resident rancher. In dryer seasons much of the nesting population on adjacent, privately-owned land will of necessity be required to nest on the refuge lakes or elsewhere as pothole areas dry up.

It was our goal this season to run successive weekly counts on several moderate-sized lakes from the first part of May until early August. From these successive counts we hoped to accurately determine the per cent of nest success by individualizing broods noted in the weekly counts and relating them to the resident population determined from breeding pair counts. This per cent of success, for all practical purposes, could be applied to the entire refuge. There are, of course, some variables and other considerations which must be recognized in a program of this kind. The detailed information thus obtained has been the subject of a previously submitted report on nesting success and brood counts. Enclosed in this report is a summary sheet which gives some of the more pertinent data related to our summer resident population and production.

BROOD COUNT SUMMARY - 1952

Valentine Refuge, Valentine, Nebraska

Observers: Wiseman & Hughlett

Species	Refuge Resident Breeding Pairs		% of Broods to Pairs	Total Broods		Mean Refuge Brood Average (weighted)	Total Refuge Production	
B/W Teal	2880	(872)	40%	1172	(322)	7.3	8556	(2359)*
Mallard	1135	(486)	40%	454	(134)	7.0	3178	(933)*
Gadwall	220	(71)	40%	88	(12)	7.7	624	(92)**
Pintail	305	(43)	40%	122	(34)	6.7	744	(228)**
Shoveler	65	(75)	40%	26	(1)		165	(4)**
Baldpate	10	(5)	40%	4	(2)		25	(13)**
G/W Teal	25	(5)	40%	9	(2)		55	(14)**
Redhead	250	(69)	40%	100	(7)		631	(42)**
Ruddy	400	(84)	40%	160	(9)		854	(51)**
Scaup	5	(8)	40%	2	(?)		12	(--)**
Ringnecked duck	5	(8)	40%	2	(?)		13	(--)**
Canvasback	1	(1)	?	?		?	?	
Bufflehead	?	(2)	?	?		?	?	
TOTALS	5301	(1726)		2139	(523)		14,857	(3,736)
Coot	1450	(372)	40%	980	(36)		3,793	(171)
TOTALS								
COOT & DUCKS	6751						18,650	

Western Grebe	500
Pied-Billed Grebe	1500
Eared Grebe	600
Total Grebes	2600

Note: Numbers in parenthesis indicate actual count.

* Mean Refuge average brood size assigned to broods which were not entirely counted.

** Mean average brood size designated for all refuges in Mr. Griffith's instructions used due to small sample actually counted.

As in some previous years, our breeding pair and brood counts were made on horseback. We have concluded that for comparative purposes, data obtained on this refuge by any other means is relatively limited and insignificant. From horseback a steady pace may be maintained, even in water kneedeep, which results in a steady movement of waterfowl out from the shore as the rider approaches. Disturbance is slight, and most pairs and broods are so close at hand when disturbed that field glasses are seldom needed for either identification or counts. Broods which many times elude a man on foot are readily picked up by a rider, who has added elevation and extra speed to come up on a brood departing into the emergents. As all who have counted broods from a pickup know, only a token sampling is obtained unless the area has a relatively bare shoreline with little emergent vegetation.

Using horses, one man may count up to sixteen or eighteen miles of shoreline in a six-hour morning, as well as traveling another ten or twelve miles across country to reach water areas. The necessity for restricting brood counts to early morning and late evening is largely eliminated. On water areas such as ours, the shoreline may be covered so thoroughly on horseback that practically all broods are driven to water or at least the mother is forced to show herself. Extensive areas of hardstem bulrush or other emergents do not lend themselves well to any type of brood census, and pair counts and estimates are used as a basis for determining production in such places.

Although we are not entirely satisfied with the completeness or thoroughness of our counts this year, the data obtained do give us a fairly good basis on which to base our breeding population and production estimates. It is possible that our data are not sufficiently complete to accurately indicate average nest success. However, the forty per-cent success indicated is believed to closely approximate production here this summer.

Casual observation would indicate a higher per cent of nest success. This is due primarily to movement of broods to remaining water areas as potholes dried up. The proximity of water areas fortunately was such that as potholes dried up, broods could reach more permanent water by traveling only short distances. A normal or slightly advanced season resulted in somewhat earlier brood peaks than in the past several seasons. As drying weather reduced water areas, the earlier broods were able to move to other nearby water areas. The timing on growth of broods and reduction in pothole numbers was nearly perfect, and it is believed that the loss of broods from being isolated in dried up potholes or through predation in making the short moves required was negligible. This belief is borne out by the numbers of broods and brood sizes observed in such areas as the east end of Pelican Lake and on remaining large potholes where broods were forced to concentrate as potholes dried up. As the larger potholes dried up, the ducklings had attained flight size.

The attached summary sheet indicates rather well the composition of our summer resident population. Bluewinged teal constitute approximately fifty per-cent of the total population, with mallards next in abundance at twenty per-cent. Gadwall, Pintail, redhead and ruddy ducks are the other species that occur in sufficient numbers to be of significance. The remaining summer resident species that are observed, such as shovelers, greenwinged teal, baldpate, scaup, ring-necked duck, and canvasback, are present in such small numbers as to be considered unusual when observed.

The tardiness of the shoveler in 'shoveling off' to his true nesting grounds results in pairs being counted until well into June, when some duck broods are coming off. However, the annual brood count for the past several years has rarely brought up more than a brood or two. Old refuge nest records of the late '30's reveal that the shoveler was the major nesting species of that period and several hundred nests of this species were recorded as having been located by CCC crews. Provided these records are authentic, this change in species composition is very interesting.

To preserve records for future management and comparison, the detailed data on breeding populations and brood counts for individual lakes are being maintained in a separate file by lakes. These annual records will also include such information as current water level, description of vegetation along entire shoreline, description of aquatics, type of land use for various sections of shore, muskrat population and harvest, presence of other aquatic birds, fish populations, and any other pertinent data noted. Keeping waterfowl, vegetation and land use data on a lake outline traced from an aerial photo makes for ready analysis and comparison of data.

The detailed breeding pair and brood count data obtained this year give convincing support to the moderate grazing of shorelines. Although shoreling grazing has been almost entirely restricted on the refuge to favor nesting waterfowl, a few areas do provide comparisons. On Dads Lake, for example, ^{on}the west one-half of the north shore where limited fall grazing is practiced but where conditions simulate non-use, a total of ninety-six pairs of puddle ducks on two and one-half miles of shoreline were counted. On the east one-half, where shoreline, type of emergent fringe and adjacent terrain are similar, one hundred thirty-five pairs of puddle ducks were present on two and one-half miles of shoreline. A single brood count on July 9 revealed sixteen broods on the west two and one-half miles, while the east, summer grazed, two and one-half miles revealed fifty-two broods. These counts are not contaminated by drift in from potholes. Even allowing for the possible shift of broods from other parts of the lake, these data speak rather convincingly for controlled summer grazing. On the summer grazed shoreline there is an abundance of nesting cover and emergents are moderately used. It will be kept in mind that the condition here is not the same as on an area where cattle concentrate on a small pothole or are restricted to a small section of a lake shore.

The features which perhaps make a summer grazed area attractive to waterfowl are the presence of some bare shoreline and reduced density of nesting cover. The picture on nest success is more obscure. It is possible that openings in the vegetation make a summer grazed area less attractive to that serious nest predator, the bull-snake. Concealment of other predators is also somewhat reduced on a controlled summer grazing unit.

To obtain a more complete picture of the relation of summer grazing to waterfowl nest success, a considerable number of potholes on privately-owned land were visited. Grazing on these areas was noticeably heavier than on such refuge areas as the Dads Lake Grazing Area 11--this was particularly true in the vicinity of potholes where the immediate shoreline cover was largely eliminated. In spite of this reduction in cover, waterfowl useage and ultimate nest success were phenomenal. Such pothole production is believed to exceed production on potholes in ungrazed or late grazed areas either on or off the refuge. A number of potholes in refuge summer grazing areas were also closely observed, particularly those in Grazing Area 24, where repeated pair and brood counts were made. Waterfowl usage and production in such potholes exceeded that on some refuge lakes considerably.

Coots were present in approximately the same numbers as in previous years. Actual counts of pairs and broods represent a very small portion of our actual population. The desired habitat in stands of emergents, principally hardstem bulrush, conceals a large part of the breeding population. The tendency of broods to congregate with adults in emergent vegetation makes actual brood counts impractical in most cases. In late August the production picture clarifies itself when broods and adults spread out on lakes choked with submerged aquatics to feed. At such time the ratio of the grey young to the darker adults may be noted and the coots blocked off by tens or even hundreds as they may occur on such lakes as "21" and the Marsh Lakes.

No summer banding has been done previously to determine where ducks raised here ultimately go or whether they may sometimes go elsewhere to nest. A total of one hundred forty blue-winged teal and three mallard young were caught on potholes and banded this summer. It is hoped that more time is available next summer for this activity to obtain a larger number of birds. On the only entire day devoted to banding young ducks, ninety-six were banded by two men, plus help from 'small fry'. Others were picked up as the opportunity presented.

As reported previously, our nesting goose project is at a standstill. No geese have been observed on the refuge this summer. A goose was heard on Trout Lake, which lies north of the refuge in July. It is likely that a pair or so of our geese are nesting in the locality. Plans are underway to obtain the nucleus for another breeding flock this fall. We plan to restrict these birds to a poultry pen at Pony Lake subheadquarters during winter and to retain pinioned birds in the goose pen there during warmer months. This should reduce the possibility of another flock cleanout. The goose pen and seven acres adjacent to it were plowed in August and seeded to rye and crested wheat grass. The combination of cordgrass and wet-going resulted in a very mediocre seed bed, and we will no doubt be required to rework this area again next year to establish a good crested wheat grass stand. The use made of crested wheat grass on the Pony Lake subheadquarters area last year by our geese indicates it to be a very good goose forage species for this area.

Both snowy and American egrets were observed this spring and early summer. These observations were of small groups of from three to six birds, as well as single birds.

American Bitterns and black-crowned night herons are rather plentiful and are observed on all refuge lakes. Nesting of the black-crowned night heron is restricted to a few lakes, from which sorties are flown each evening. Great blue herons were commonly observed and established the first refuge nesting colony recorded at West Twin Lake. Several pairs nested there this year. A Least Bittern was observed on Whitewater Lake in July.

Grebes and cormorants evidenced no increases. The main nesting colony of cormorants moved from Pelican Lake to Clear Lake. Approximately two hundred fifty nests occurred in dead trees there. The cormorants from this colony flew regular missions across the hills to all other lakes in the vicinity—even going as far as Dads Lake.

Rails, mainly Virginia rails, were observed to be present in approximately the same numbers. The sora was only rarely seen or heard, while Virginia rails were noted frequently while counting waterfowl pairs and broods. Another Virginia rail nest with nine eggs was found on the refuge this year.

Wilson's Phalaropes have shown phenomenal increase in the past several seasons. From occasional observations in 1947 they have increased to what amounts to nesting colonies of a hundred or so birds at some marshy locations. In late July flocks of two hundred to three hundred phalaropes were noted resting on Pelican Lake. Other shorebirds are present in slightly increased numbers with some mud flats occurring around lakes and potholes.

A rare observance of a brown Pelican was made in early May at Dewey Lake. This strange character was later observed on Willow Lake. He was apparently considered an outcast by his snowy brothers, who associated with him not at all.

Long-billed curlews continued to be observed only occasionally. Some preference for summer grazed areas was noted, but observances were too few to be of significance.

2. Food and Cover. This section finds us reporting the abundance of good natural aquatic foods which are synonymous with water in the Sandhills. Although some extensive hardstem bulrush stands have been reduced by high water, this loss has caused neither a shortage of food nor of emergents for nesting divers. At Dads Lake it is possible that additional emergent vegetation would have favored a rather large summer population of ruddies which occurs there annually.

Lack of cover is not a limiting factor to waterfowl use or production. If anything, a moderate reduction in shoreline cover might favor waterfowl. The increase in water areas with newly created potholes occurring, resulted in a considerable increase in desirable waterfowl habitat during the first part of the period. These attractive areas are now mainly dried up.

3. Botulism. None noted.

4. Lead poisoning and other diseases. None noted.

B. Upland Game Birds.

1. Populations and Behavior. Sharp-tailed grouse, which for some time shared the limelight with pheasants on an approximately even basis, have stepped forward with remarkable production this year. From fifty to one hundred sharptails may be seen still in family brood groups along stretches of meadow a mile or so in length. Brood sizes average around eleven or twelve, with a number of counted broods having fourteen and fifteen birds. From the number of broods noted, it appears that nest success has been very high for this species.

Pheasants continue to recover from the low ebb caused by the winter of '49, but their comeback is not striking. A number of broods are being noted, but it is not likely that our wintering population will much exceed last winter's. We were pleasantly surprised at the pheasants' status when they flocked up last winter, and perhaps they will surprise us again.

Pinnated grouse continue to be scarce on the refuge and are seen only occasionally. The east-west range line may clearly be seen around the east end of the refuge. Prairie chicken are rarely seen at the west end of the refuge. On the east end they are seen occasionally, and one brood with thirteen young was noted on Marsh Lake. A trip a few miles east of our boundary disclosed still more increase, and several different small groups were noted in one afternoon. One of our trappers, George Hytrek, reports sharptails and prairie chicken to be of about equal abundance at Stuart, ninety miles to the east.

Mourning doves have shown some increase on the refuge, and probably sixty were raised around headquarters.

The state has recognized the increase in sharptails, and has increased the season in this county from three to five days and the limit from two to three birds. Although the pheasant population in this part of Cherry County can not stand much reduction, the entire county will be open to hunting for ten days. Most counties in the state will have a forty-day pheasant season.

2. Food and Cover.

Although there are no cultivated crops on or near the refuge, the natural foods present have produced well. Sunflowers and other seed bearers of consequence have fruited heavily. Chokecherries, plums, sandcherries, and such fruits also escaped late spring frosts and produced well.

The hardy grouse required little in the way of cover, although severe storms drive him to groves of willow and cottonwood, cattle feed lots and to planted cedar groves. Groves and brushy willow and cane (*Phragmites* sp.) swamps are favored by pheasants for winter cover, and these are well interspersed over the refuge.

3. Disease. None noted.

C. Big Game Animals

1. Population and Behavior. Both mule and white-tailed deer are observed fairly frequently on the refuge. Their numbers are not great, probably running from thirty to forty, as we have reported for the past several seasons. The annual deer movement from the refuge for wintering grounds along the wooded rivers to the west occurs as the season progresses.

D. Fur Animals, Predators, Rodents and Other Mammals. Our principal fur species, the muskrat, appears to have had a favorable year. Some loss has occurred due to the drying up of potholes which have supported muskrats for a year or so. The muskrats in many cases reach more permanent water safely, but predation by coyotes, horned owls, and hawks undoubtedly make an inroad on their number. Highway casualties are rather frequent as barrow pits along the right-of-way dry up forcing the muskrats to travel.

It appears likely that our muskrat population, when censused by aerial house count, plus ground observation of bank 'rats, will approximate that of last season.

Mink sign is noted occasionally and it is believed that this fur-bearer is on a par with previous seasons. Weasels are noted more commonly than at any time for the past five years, but their numbers are still rather limited.

Badgers and raccoons are not numerous on the refuge, and no special effort will be necessary to hold their numbers in check.

The coyote remains as our principal nuisance species. We know him to be our principal nest predator, and past observations also indicate him to be harder on muskrats on this refuge than the mink, which are more limited in numbers. Our bewhiskered permittee trapper "Fuzay" Stilwell is currently starting his annual campaign on the coyotes. His principles prevent him from killing the pups until they reach 'sporting size'. He ear-marked one den of eight pups just off the refuge and assured us he would get them this winter.

The Division of Predator and Rodent Control is getting organized to get a cooperative hunter working in Cherry County on coyote control. This hunter will use 1080 poison principally and will be paid by either the county or private ranchers. A similar set-up is being organized in Brown, Rock and Keya Paha Counties, where it will be possible for one trapper to take care of all three counties. There is some opposition to these programs from coyote hunters, who have a considerable investment in 'coyote wagons', hounds, etc. In Rock County this faction will no doubt prevent a hunter from coming in. Such a control program would enhance the value of our coyote control work, which is nullified rapidly as coyotes move onto the refuge soon after we get them reduced in numbers. Our annual removal on the refuge has run near one hundred coyotes annually for several seasons.

Bullsnakes, which annually account for many waterfowl and upland game bird nests, were observed to be present in normal numbers. They are observed fairly frequently in early spring, but are seldom seen after vegetation becomes rank. A number of nests under observation as a result of bluegrass stripping and other activity disclose a considerable amount of bullsnake nest predation this season. Approximately thirty bullsnakes were killed by refuge employees during the period.

- E. Predaceous Birds. Our usual numbers of great horned owls, red-tailed, Swainsons, marsh and sparrow hawks nested here this summer. An unusual summer observance of a golden eagle was made at Dewey Lake in late July. Turkey vultures working out from the Niobrara River have been noted occasionally.

Crows and magpies are limited in numbers on the refuge, but they do take advantage of what trees exist to bring off a few young. Some of the young are sufficiently docile to be picked off with a rifle, but the old ones take off the moment a truck stops within three hundred yards.

- F. Fish. Fishermen experienced some good crappie fishing on Dewey Lake during the early part of the period. As is usually the case, this fishing fell off as the summer progressed and not many crappies were taken in July and August. Many vacationists from counties to the south and east fished with some regularity during July and August, but catches were more mediocre, with bullheads making up the bulk of the catch.

Virtually no fishing use was made of Willow Lake this period, and no fishermen were known to have fished Dads Lake, which is also open.

Hackberry Lake produced fair catches of bullheads and small perch, but fishermen with boats went on to Dewey for serious fishing.

A seven-day fish survey conducted by Biologist Robert Sharp in late July disclosed some interesting and valuable data on our fish populations in the major lakes on the west end of the refuge. The preliminary report has been submitted, and a more detailed report will be prepared after scale samples and other data have been analyzed during the winter months. The possibility of adjusting our lakes open to fishing to correspond with existing fish abundance has been discussed with Mr. Sharp and Regional Office personnel, and our final recommendations on the matter will be submitted as soon as all pertinent related waterfowl data are analyzed.

Approximately 950 fair-sized bullheads were removed from Mule Lake for restocking. This lake is not one of our best waterfowl lakes, and the mediocre condition of the bullheads, the only species taken, reflects an inferior alkali lake condition. The Valentine State Fish Hatchery, in obtaining bass and green sunfish from Long Lake for the Nebraska State Fair, took 200 5" - 11" bass, which were moved to Hackberry Lake. Their efforts with hook and line in Pelican Lake, where our survey indicated a very good fish population of all game species, were rewarded only with a couple of bass and a few crappies.

III REFUGE MAINTENANCE AND DEVELOPMENT

- A. Physical Development. The trail along the north side of Hackberry was rebuilt and sand hills along Dewey Lake trail bypassed by cuts through sand hills. These cuts were surfaced with black dirt and sod, using the TD-9 and scraper. Hay was cut and windrowed for use on sand trails.

The County furnished us with two motor patrols with operators for three days. These patrols rebuilt the trail west of headquarters leading past Duck Lake to the L. C. Beel, Jr., ranch. This trail serves the Pelican Lake subheadquarters. Three refuge personnel and three of Beel's men spent two days and used nine stacks of hay haying this trail when graded. The old trail was deeply rutted with many pockets, which are snow traps in the winter.

A total of forty-five man-days were spent on various phases of road work this period.

Approximately six man-days were spent moving equipment between this refuge and the Fort Niobrara Refuge.

B. Maintenance.

1. Telephone line maintenance.
2. Regular equipment maintenance on pickup trucks, Farmall tractor and mower, TD-9 tractor and scraper, and four Kohler light plants.
3. Nine man-days were spent painting the Pony Lake residence and the coal storage shed at headquarters. Repairs were started on storm windows at headquarters and broken glass replaced in shop.
4. Two days were spent replacing eroded fill on face of Gordon Creek dam.
5. Pipe frames were completed and set for three large refuge recognition signs on oiled road to headquarters---signs erected. One sign placed at junction with Highway 83.
6. Gordon Creek Diversion Canal sprayed twice with 2-4-D, using fire truck, for willow control with fair results.
7. Windmill at headquarters repaired by installing new fan and mill parts.
8. Irrigated headquarters area with Gorman Rupp pump from lake and with water from irrigation mills.
9. Upkeep of grounds at headquarters and subheadquarters.
10. Goose pen and seven acres adjacent renovated for goose forage.
11. Periodic cleaning of fish screen on Whitewater outlet.
12. Replaced plug in Watts Lake.
13. Several man-days spent preparing material for bid issuance for rewiring of refuge buildings for R.E.A. power and conducting prospective bidders going over the twenty-nine buildings needing work at the various headquarters sites. All bids rejected as being too high, and Mr. James Nelson, mechanic from Crab Orchard Refuge, assigned here to be in charge of the rewiring. A large part of the materials have been obtained and the actual work is in progress on a force account basis. R.E.A. will possibly be here in a few months.
14. Preliminary work on corner locations needed for new fencing at southeast corner of refuge.

IV ECONOMIC USE OF THE REFUGE

A. Grazing.

Range conditions which have been very favorable following a series of very good seasons continue to be good this year. In spite of hot, drying weather which has eliminated many potholes, the range is in good condition. The few showers experienced this summer have been sufficient for the needs of native grasses. Hills which normally brown up in a dry summer still retain some green color at the close of the period. Growth of range grasses has been slowed considerably by the continued heat, and privately-owned pastures which are stocked at a heavy rate are not holding up so well as last year, when summer rainfall was abnormally high.

Refuge summer pastures have been under constant observation and are holding up in good condition. Our stocking rates provide the insurance needed to carry through reasonably dry periods with no ill effects.

No further progress has been made on having a range classification survey made of the entire Refuge by Soil Conservation Service personnel. The single Range Conservationist for Nebraska has numerous demands on his time, and we have a tentative promise to start work soon after September 15. This survey will classify all land according to site and range condition. Such a survey will be very valuable in evaluating and revising our stocking rates where necessary. Our Economic Use Plan has called for no more than 70% utilization of forage, while the Soil Conservation Service recommends no more than 50% utilization. Actually our utilization more nearly approximates the latter figure.

B. Haying.

The high ground water levels which furnish subirrigation to our meadows resulted in very favorable hay growth. The drying weather of July and August reduced the area of temporary marshes, allowing haying at some places which were by-passed last season because of high water. The six inches of rain experienced in August last year made considerable hay unavailable.

Although no hay is measured on the refuge, we feel total hay production is approximately the same or a little better than last year. Much hay which contains old mat from swamps not cut last year will be of low quality and will have little feed value. With a moderately open winter, we will no doubt receive revenue from approximately the same number of AUM's as last winter. Continued winter storm periods, which reduce use of range forage and wind-rowed hay, result in reduced utilization, while open winters extend use considerably. Practically all winter feeding operations on the refuge are supplemented by a ration of high protein cake such as Lincoy or Cottonseed cake at no reduction in the \$1.50 charge per Animal Use Month.

C. Fur Harvest.

Prospects for a favorable fur harvest dependant mainly upon muskrats appear favorable. Harvest recommendations will be made when a muskrat census has been completed. The state season on muskrat and mink in this county extends from December 15 to March 15, as it did last year.

Other fur bearers are of minor significance on this refuge. A few beaver are now present on the refuge. The south side of Pelican Lake supports the only resident colony of any significance noted on the refuge. There is a state-wide season on beaver this year coinciding with the muskrat and mink season.

D. Timber Removal. No timber removed this period.

E. Other Uses.

To satisfy public demand, informal bid solicitation was made this year to determine who would be given a permit to strip bluegrass on the refuge. Mr. Homer Buell increased his offer from six to eight pounds of cleaned, certified bluegrass seed for each acre stripped, thus qualifying himself to continue with his fifth year of stripping on the refuge. Approximately 485 acres were stripped, which will furnish us with nearly two tons of certified bluegrass seed for use on other refuges. Bluegrass is considered to be a low quality and in some areas undesirable grass for pasture use. For this reason the merits of obtaining large quantities of bluegrass seed which will all incur freight charges as opposed to putting this stripping operation on a cash basis should be carefully weighed. In some areas more desirable seed could be purchased for less money than the bluegrass is worth and no freight costs would be involved.

A greatly increased number of waterfowl nests were located this season during the bluegrass stripping. Forty-eight nests were located by strippers. This is due to an increased nesting population and to dispersal of this population by temporary water areas which occur frequently in bluegrass areas. Most of these nests were bluewinged teal nests. In accordance with our regulations governing stripping, each nest was marked when discovered so that it could be bypassed by the strippers on subsequent rounds. The stripping operation goes in a counterclockwise direction, and the narrow-wheeled strippers pass over the ground before the tractors do.

Subsequent checks of the nests revealed that twenty-one of the forty-eight nests were successful, nine were destroyed by snakes, five were destroyed by coyotes, two were destroyed by crows, and one by an unidentified predator. Four of the nests were deserted, and six were not followed through completely due to the markers blowing down or being rubbed down by cattle. Since records were completed on only forty-two of the nests, the twenty-one hatched represent a 50% total hatch. Since these nests were for the most part terminated within a week or two after they were first located, this does not indicate that the hatching success of full-term nests would be as high as 50%.

The predation by bullsnakes ran nearly 25% as might be expected in meadow areas. Other nesting work reveals that on upland type areas coyotes become the most prominent nest predator.

Cooperation of the present bluegrass stripping permittee, Mr. Homer Buell of Bassett, has been very good. After a close observation of this activity over a five-year period, we are unable to identify any conflict of significance between bluegrass stripping and waterfowl production. This is, of course, dependant upon the cooperation of the permittee and his employees.

V. FIELD INVESTIGATIONS OR APPLIED RESEARCH

No reports under this section. The muskrat investigation being carried on by Mr. J. H. Sathers, State Biologist, is in a dormant state while Mr. Sathers completes work at the University of Nebraska and analyzes his data.

VI. PUBLIC RELATIONS

A. Recreational Uses.

Fishing remains our principal public use. Fishermen frequented Dewey Lake throughout the period, and a few cars of fishermen also used Hackberry Lake almost daily. A number of people drive out from Valentine to view the headquarters and lakes in the area now that we are served by an oiled road.

B. Refuge Visitors.

Visitor	Affiliation	Dates
Merrill Hammond	Biologist, Lower Souris Refuge	5/2 & 7/25
J. H. Sathers	Nebraska Game Department	Numerous
Mr. & Mrs. Loren Denny	Curtis Ag. School, Nebraska	5/15 to 5/19
Dr. Clarence Cottam	Asst. Dir. USFWS	5/19
Mr. Francis C. Gillett	Regional Sup. USFWS	5/19 & 6/6
William Sweeny	Biol., River Basin Survey	5/21
Mr. Larson	" " " "	"
Charles Evans	" " " "	"
William Ahern	Nebraska State Game Agent	5/21
Ralph Meford	Bureau of Reclamation	Numerous
Ralph Lippert	" " "	"
Art Graef	" " "	"
Harvey Miller	Nebraska Game Commission	6/10
Jack Mendenhall	Valentine Fish Hatchery	Numerous
Jim Grey	" " "	"
Jess Jones	" " "	"
H. A. Hauke	Bur. of Entomology	7/9
Robert Sharp	Biologist, Fisheries Branch USFWS	7/15 to 7/22
Russ Severson	La Crosse Hatchery	" " "
American Society of Farm Managers and Rural Appraisers		6/23
W. G. McClure	Game Management Agent	8/7
Paul Todd	Nebraska Game Commission	8/8

B. Refuge Visitors. (Continued)

Doane College Group	Doane College, Crete, Nebr.	8/1
Tom Newport	Geological Survey	6/20 & 8/18
James Nelson	Crab Orchard Refuge	8/25 to present
Knox Jones	Kansas University	9/3

Numerous visits by fishermen, permittees, visitors, etc.

C. Refuge Participation.

The manager attended the May meeting of Sandhills Rod and Gun Club at Ainsworth.

A long bowling season was completed in May, with the 'Refuge' team in third place in a league of four teams.

On May 15, 16 & 17 a tour of instructors from Curtiss Agricultural school were in this area. Meetings of this group at various ranch and social functions were attended, and Mr. Loren Denney, the science instructor at Curtiss, and his wife were guests at the headquarters residence while the group was here.

Entertainment for the June meeting of the Sandhills Rod and Gun Club, which features an annual fish fry, was furnished by the Fish and Wildlife Service. Mr. Francis C. Gillett, Regional Refuge Supervisor, appeared as principal speaker to an attentive audience of three hundred people at the City Auditorium in Ainsworth. The film 'Behind the Flyways' was shown by Mr. 'Flick' Davis, Regional Supervisor of Law Enforcement. A discussion on the film and its related features was led by Mr. Davis. Mr. G. McClure, Game Management Agent for Nebraska, as well as personnel from the Fort Niobrara and Valentine Refuge, attended this meeting, also.

Approximately three hundred fifty people attending the summer meeting of the American Society of Farm Managers and Rural Appraisers drove out to the refuge and through headquarters while on a tour of the region. In cooperation with the Valentine committee responsible for arrangements, a short descriptive article on the refuge was prepared and presented to be a part of their brochure. A copy of the brochure is appended to this report. The manager and better half also made the June 23, 9:00 PM meeting of this organization with the Brownlee Square Dance Club for a strenuous evening.

The manager attended the July meeting of Sandhills Rod and Gun Club in Ainsworth.

On August 1 a group of eighteen teachers from Doane College at Crete, Nebraska, were taken for a tour on the refuge and indoctrinated to the Refuge Program. The films 'Fort Niobrara Refuge' and 'Conservation in Action' were shown to this group and members of the Valentine B.P.W. the same evening at the Valentine Legion Club.

The manager attended August meeting of Cherry County Soil Conservation District. A cooperative agreement was presented for their consideration.

Many hours were spent during the period in contacts with fishermen and interested visitors. Of necessity, much time is spent with the numerous permittees both in discussing grazing and haying matters and in checking cattle in and out of refuge grazing areas. To take care of public use as well as a fire precaution, a staggered tour of duty has been in effect for employees most of the period so that someone is at headquarters at all times.

D. Hunting.

None during the period. No public hunting areas on the refuge.

E. Violations.

The trespass and fishing in closed waters case pending against the County Attorney, local bank president and two other local men is still pending. This case has been pending since May 1951. Indirect word picked up through an acquaintance of the men is that the County Attorney, whose brother has been the State Chairman of the Democratic party for a number of years, is obtaining delays on this case. It appears now that it will not come up until after election. He is supposed to be waiting for a jury trial with a favorable judge in nearby Chadron rather than appearing in Omaha. The case was in the hands of the U.S. Attorney in Omaha. It seems that justice is more flavored by politics than the common citizen is led to believe.

Our publicized offer to put more pending cases on the U.S. Attorney's docket has apparently been effective in diverting incensed citizens from our closed refuge waters. We believe we have been free of trespass fishing this summer. The attitude of local people who are watching the pending case is understandable.

VII. OTHER ITEMS

A. Items of Interest.

Mr. Cecil Swanson entered on duty on May 19, as maintenance man (Equipment), to bring the refuge personnel complement to full strength for the first time in nearly a year. His services have been very valuable in keeping our work program running smoothly. We are fortunate in being able to divert Mr. Swanson from the job he held as Mechanic in the Ford Garage in Valentine, since 1945.

Mr. James Nelson, able mechanic, from Crab Orchard Refuge, has been assigned temporarily to this refuge to be in charge of bringing our wiring at three headquarters sites, comprising a total of twenty-nine buildings, up to R.E.A. specifications. We are at last getting close to the day when our electric power can be picked from a pole instead of from a set of light plants which have seen up to fifteen years of service.

B. Photographs.

The ten-day photo service we are subjected to compels us to hold this report until after September 10, when it is due. Photographs taken with personal equipment and film.

Respectfully prepared and
submitted by:

Report Completed
September 8, 1952

George S. Wiseman
George S. Wiseman
Refuge Manager

Approved:

W. A. J. J. J.
Regional Director
SEP 19 1952

(1) Species Common Name	(2) First Migrants Seen		(3) Peak Concentration		(4) Last Migrants Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
1. <u>Swans:</u> Whistling swan									
2. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose	Summer resident		20	5/1	Summer resident		None		5
	None observed		?	?	None observed		None		None
	"		?	?	"	"	None		None
3. <u>Ducks:</u> Mallard Black Duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck American merganser Hooded merganser	Summer resident 1 Summer resident " " " " " None observed Summer resident " " " " " 1 2 Summer resident 100 1	 6/10 " " " " " " " " 5/1 6/15 5/1 6/10	10,000 ? 15,000 5,000 15,000 1,500 35,000 ? 10,000 2 3,000 500 1,000 500 10 25 2,500 500 ?	8/30 ? 5/1 5/1 8/30 5/1 8/30 ? 5/1 7/18 8/1 5/1 5/1 5/1 5/1 5/1 5/1 8/30 5/1 ?	Still present " " " " " " ? Still Present " " " " " 1 2 Still Present 55 1	 " " " " " " ? " " " 5/1 6/15 5/15 6/10	134 None 12 2 34 2 322 None 1 None 7 None None None None 9 None None	3178 624 25 744 55 2359 None 165 ? 631 13 ? 12 None None 854 None None	15,000 15 18,000 8,000 20,000 2,000 60,000 20 12,000 25 5,000 800 1,500 700 25 50 5,000 1,000 5
4. <u>Coot:</u>	Summer resident		20,000	8/30	Still present		171	3793	30,000

3-1750

(June 1949)

(over)

Form NR-1

SUMMARIES

Total Production:

Geese 5Ducks 14,857Coots 3,793Total waterfowl usage during period 179,140Peak waterfowl numbers 119,557Areas used by concentrations All lakes and potholesPrincipal nesting areas this season All lakesDads Lake very good. Temporary potholes high producing

Reported by _____

George L. Wiseman
Refuge Manager

INSTRUCTIONS

(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) First Seen:

The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.

(3) Peak Concentration:

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 in the reporting period.

(5) Young Produced:

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.

(6) Total:

Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the Summaries receive careful attention since the data are necessarily based on an analysis of the rest of the form.

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

MIGRATORY BIRDS
(other than waterfowl)

Refuge ~~Valentine National Wildlife~~

Months of ~~May~~

~~March August~~

1945

(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	Summer resident		600	8/1	Still present		3	200	400	1,000
Western grebe	"	"	400	8/1	"	"	5	200	400	1,000
Pied-billed grebe	"	"	1,500	8/1	"	"		500	1,000	2,500
White Pelicans	"	"	800	5/1	"	"	Not nesting			3,000
Brown Pelican	1	5/1	1		1	May	None			1
Double crested cormorant	Summer resident		2,500	8/1	Still present		5	500	1,500	2,500
Great blue Heron	"	"	250	8/1	"	"	1	15	30	500
American egret	1	May	10	6/1	2	July				20
Snowy egret	3	May	10	6/1	3	7/20				20
Black-crowned night heron	Summer resident		2,000	8/1	Still present		10	500	1,000	2,500
American bittern	"	"	1,500	8/1	"	"		500	1,000	2,500
Least bittern	1	7/10	Rare		1	7/20			?	10
Virginia rail	Summer resident		common		"	"			2,500	4,000
Sora rail	"	"	scarce		1	7/20			100	200
II. Shorebirds, Gulls and Terns:										
Terns:										
Killdeer	Summer Resident		2,500	8/1	Still present				8,000	4,000
Wilson's snipe	"	"	500	5/1	"	"			?	1,000
Long-billed curlew	"	"	200	6/1	"	"			75 - 100	300
Upland plover	"	"	800	7/1	"	"			500	1,000
Spotted sandpiper	"	"	?		"	"			?	?
Western willet	"	"	150	7/1	"	"			?	?
Greater yellow-legs	"	"	uncommon		"	"			?	?
Lesser yellow-legs	"	"	common		"	"			?	?
Pectoral sandpiper	"	"	not abundant		"	"			?	?
Hair's sandpiper	"	"	"		"	"			?	?
Long-billed waditcher	"	"	"		"	"			?	?
Least sandpiper	"	"	"		"	"			?	?
Western sandpiper	"	"	"		"	"			?	?
Avocet	"	"	200	7/1	"	"			100	500
Wilson's phalarope	"	"	10,000	(over)	"	"			3,000	15,000

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove	Summer resident	3,000	8/30	Still present	1,000
White-winged dove					10,000
IV. Predaceous Birds:					
Golden eagle				None	50
Duck hawk				None	10
Horned owl				150	300
Magpie				300	
Raven					
Crow				300	2,000
SHOREBIRDS, GULLS & TERNS (Cont.)					
Herring gull	Summer resident	occasional		Still present	Not known to nest ? 5,000
Franklin's gull	" "	common		" "	Not known to nest ? 20,000
Ring-billed gull	" "	1,000	5/1	" "	Not known to nest 2,000
Forster's tern	" "	2,500	8/1	" "	1,500 3,500
Black tern	" "	3,000	8/1	" "	2,000 3,500

Reported by **George L. Wiseman**

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 Gruiformes)
 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.

3-1752
Form NR-2
(April 1946)

UPLAND GAME BIRDS

1613

Refuge Valentine Nat'l. Wildlife

Months of May ~~this~~ August, 1944 52

(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'd. Estimated Total	Percentage	Hunting	For Re- stocking	For Research	Estimated number using Refuge	
Sharp-tailed grouse		70,000 acres less 9,000 acres water		12,000	unknown	None			16,000	Pertinent information not specifically requested. List introductions here.
Prarie Chicken		"		250	unknown	None			400	
Ring-necked pheasant		"		3,500	unknown	None			7,500	

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.

3-1570
NR-8a

REFUGE GRAIN REPORT

Refuge Valentine National Wildlife Refuge

Months of May thru August 1952

(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 USE		
				TRANS- FERRED	SEEDED	FED	TOTAL		SEED	FEED	SURP.
Mixed grain	25 bu.		25 bu.			10 bu.	10 bu.	15 bu.		15 bu.	
Ear Corn	64 bu.		64 bu.			10 bu.	10 bu.	54 bu.		54 bu.	
Oats	20 bu.		20 bu.			10 bu.	10 bu.	10 bu.		10 bu.	
Barley	40 bu.		40 bu.			5 bu.	5 bu.	35 bu.		35 bu.	
Rye	20 bu.				20 bu.		20 bu.	0			

(8) Indicate shipping or collection points.....

(9) Grain is stored at Valentine Refuge headquarters and at Pony Lake subheadquarters.

(10) Remarks Grain to be used for duck banding, emergency feed for upland game and for geese
expected to be obtained this fall.

NR-8a (5) 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 lbs., Corn (ear)—70 lbs., Wheat—60 lbs., Barley—50 lbs., Rye—55 lbs., Oats—30 lbs., Soy Beans—60 lbs., Millet—50 lbs., Cowpeas—60 lbs., and Mixed—50 lbs. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels.

- (1) List each type of grain separately: Corn, wheat, proso millet, etc. 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 breakdown by varieties of grain listed in Column 6.
- (8) Nearest railroad station for shipping and receiving.
- (9) Where stored on refuge: "Headquarters grainary", etc.
- (10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.



Above - Approximately twenty young blue-winged teal being herded into the wings of the trap enclosure seen at left. This outfit is light and may be taken down or set up in a few minutes. Careful herding results in 100% catches on limited water areas.



Left - The teal in above photo ready for sacking and banding.



Manager Wiseman and son banding teal taken in another pothole drive. This driving is refreshing work in deep potholes where only a hat may be showing above water.



Fisheries Biologist Bob Sharp and Russ Severson from the LaCrosse Fish Station unloading the gill net take from Hackberry Lake. This section of the net indicates the abundance of parch, while other sections indicated heavy populations of moderate-sized crappies and bullheads. The carp populations are not well indicated by this method of sampling.



Clerk Wilson and Maintenance men Swanson and Hauge erecting pipe sign frame. Posts are set in concrete, and concrete anchor chains are also attached to the sign to prevent wind damage.



Three large refuge signs such as this erected during the period on the new oiled road past headquarters. These signs follow the Crab Orchard 'patent,' which has attained a great deal of popularity.



Maintenance man Cecil Swanson plows cordgrass in goosepen preparatory to seeding with rye and crested wheatgrass. A total of seven plus acres plowed in and adjacent to goosepen. This first year seed bed was not too good and we anticipate repeating the process next season.



The roadfill between North Marsh and Middle Marsh Lakes is no longer passable at the east end. The fill is also under water at several other spots farther west. The Marsh Lakes basin does not drain with present water levels.



Cuts made through impassable sand hills are leveled and 'paved' with sod and black dirt from adjacent meadowland. Td-9 and 5yard scraper used for this work. These cuts are on the Hackberry-Dewey Canal and along the north side of Dewey Lake.





Maintenance man Ben Hauge cuts bypass trail along Hackberry Lake on north side near east end. This bypass built to avoid a series of steep sand hills which cannot be kept passable even with continued haying. The bypass will also require hay, but maintenance will be greatly reduced.





The County offers assistance in the form of two motor patrols to grade up badly rutted sand trail to Pelican Lake Subheadquarters. Much clay and black dirt from CCC days remains in this trail, and after haying with 9 stacks of hay we expect better travel conditions, particularly in winter.



Valentine fishermen take a Sunday morning to assist in haying trail to Dewey Lake via Hackberry Lake. Activities of this sort have an unfailing ability to separate the 'fishermen' from the 'Sportsmen'.



Panoramic view of headquarters area - Valentine National Wildlife Refuge

the
American Society
of
Farm Managers
and
Rural Appraisers

1952

SUMMER MEETING

JUNE 22, 23, 24

**VALENTINE
NEBRASKA**



American Society of Farm Managers and Rural Appraisers

Officers

Howard W. Greene.....President
R. G. Anderson.....First Vice-President
Arthur SchultisVice-President
A. C. McTaggart.....Vice-President
G. F. Thorkelson.....Editor
H. E. Stalcup.....Secretary-Treasurer

Summer Meeting — 1952

Nebraska Society of Farm Managers and Rural Appraisers

Cliff Jorgenson, President

Glenn Le Doyt, Vice-President

Phil Henderson, Secy.-Treas.

Sandhills Cattle Association

Floyd Lackaff, President

Ralph A. Baker, Vice-President

Sam R. McKelvie, Chairman of Board

Chester Paxton, Treasurer

Robert E. Hamilton, Secretary-Mgr.

University of Nebraska-Extension Service

W. W. Derrick, Tour Manager

Charles Adams, In Charge of Barbecue

Robert Herrington, County Agent

Cooperating As Hosts

GENERAL INFORMATION

Registration Fee

\$6.00 for the Men

\$3.00 for the Ladies

Transportation for Tours

Monday—Use your own cars for the tour to the game refuge and fish hatchery and to the Reece Ranch in the afternoon.

Tuesday—Cars will be provided by local ranchers for this portion of the tour. Leave your cars in town for the ladies to use to get to By The Way Ranch for the Barbecue.

Hotel Accommodations

Valentine hotels and motels will be taxed to full capacity. A committee of the Valentine Chamber of Commerce is making arrangements to put the overflow into private homes. Be sure to write well ahead of time so that proper accommodations can be secured for you and your party.

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Ladies Program

The ladies are welcome to take part in all of the program that is provided for the men. However, the following parts of the program have been specifically set up to include you.

Tour to Game Refuge and Fish Hatchery on Monday Morning

Monday Evening Banquet

Monday Evening Dance

Barbecue at By The Way Ranch on Tuesday

Use the cars that the men will have left behind when they leave Valentine on the tour in the morning. Follow Highway No. 83 for 20 miles south to the ranch. It is all oiled road and there will be no difficulties encountered in getting there.

This program is subject to some additions which will be announced when you arrive.

- 7:30 P.M. Smoker
 Bruce Russell, Farmers National Co., Omaha, Nebraska,
 Presiding
- Address....."God's Own Cow Country"
 Sam R. McKelvie, Former Governor of Nebraska, Rancher
 and Publisher, Chairman of Board, Sandhills Cattle
 Association
- Panel Discussion....."How Rancher And Feeder Meet"
 Tom Arnold.....Rancher, Menzel, Nebr.
 (To Be Announced).....Order Buyer
 Mike Typer.....Sale Barn Operator, Valentine, Nebr.
 Don Cunningham.....Central Public Markets, Sioux City, Ia.
 Bruce Russell, Moderator

General Announcements

+ + +

Monday, June 23

Morning Session

- 7:30 A.M. Tour to Game Refuge and Fish Hatcheries
 Use your own cars for this tour. We will start from the
 Marion Hotel.
- 9:00 Registration—Veterans Club
- 9:30 Business Meeting, Introductions and Organization
- 11:30 Lunch—St. John's Episcopal Church Parish Hall
 Prepared by the Ladies of the Church

Afternoon Session

- 1:00 P.M. Leave for C. S. Reece and Sons Ranch
 Here we will see an Angus Cow & Calf Operation and
 study a recent appraisal of the ranch made by the Federal
 Land Bank with explanations by Oscar Hahn, Chief Review-
 ing Appraiser, assisted by Ivan Packard Special Reviewer,
 Federal Land Bank.

- 6:30 P.M. Banquet—Veteran's Club—Served by American Legion Aux.
 President Howard W. Greene Presiding
 Welcome.....Robert E. Hamilton, Mayor of Valentine
 Address.....Chancellor R. G. Gustavson, University of Nebraska
- 9:00 Square Dancing—City Auditorium
 Led by Brownlee (Nebraska) Square Dance Club
 Cooperating With
 R. C. Russell, University of Nebraska Extension Service

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Tuesday, June 24

Touring the "Sea of Grass"

- 7:30 A.M. Leave for Willow Grove Land & Cattle Co. Ranch
 See Angus Cow and Calf Operation
 Branding, Castrating and Vaccinating Demonstrated
- 11:00 Rolling Stone Ranch Co.
 Hereford Spring and Fall Calves Being Carried to 12 and
 18 Months of Age
 Demonstration of Sorting Heifers for Sale and Breeding
Purposes
- 12:30 By The Way Ranch
 Registered Hereford Operation with Neighboring Here-
 ford Breeders, Harold Harms and Wilbur Drybread,
 Cooperating
 Prime Beef Well Barbecued by Chas. Adams of University
 of Nebraska
 Address.....Dean W. V. Lambert, College of Agriculture,
 University of Nebraska
 Type Demonstrations of Hereford Bulls for Range Use
 Making Hay in the Sandhills
- 4:10 L. C. Beel Ranch
 Hereford Calves Being Carried to Two's and Three's
 Winter Feeding Demonstration Using Sled and Winch

Sunday, June 22

Evening Session

Marion Hotel

- 7:30 P.M. Smoker
Bruce Russell, Farmers National Co., Omaha, Nebraska,
Presiding
Address....."God's Own Cow Country"
Sam R. McKelvie, Former Governor of Nebraska, Rancher
and Publisher, Chairman of Board, Sandhills Cattle
Association
Panel Discussion....."How Rancher And Feeder Meet"
Tom Arnold.....Rancher, Menzel, Nebr.
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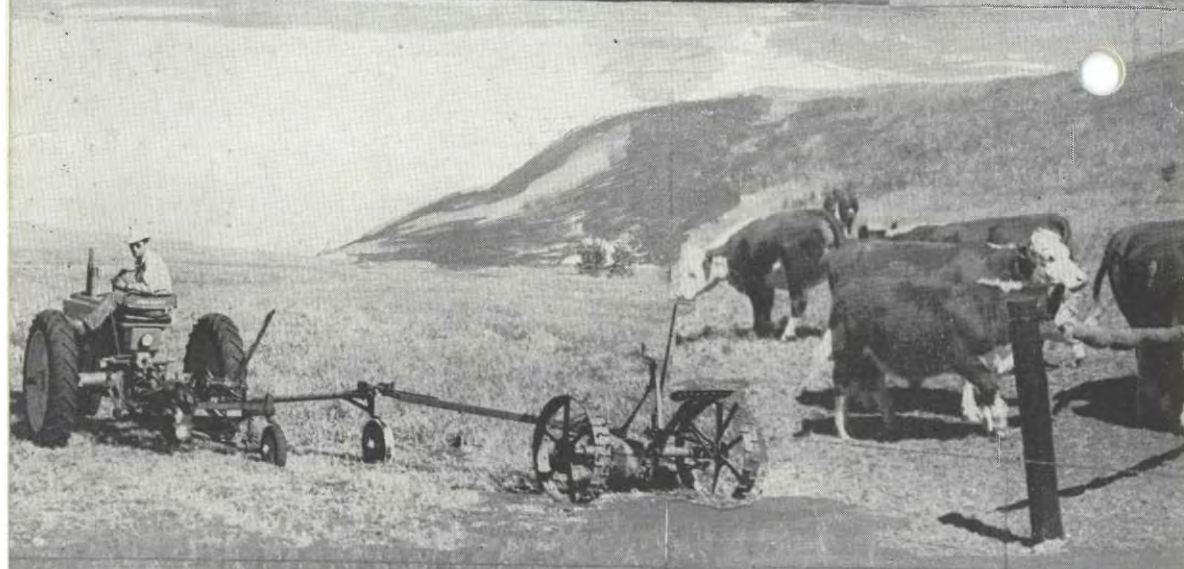
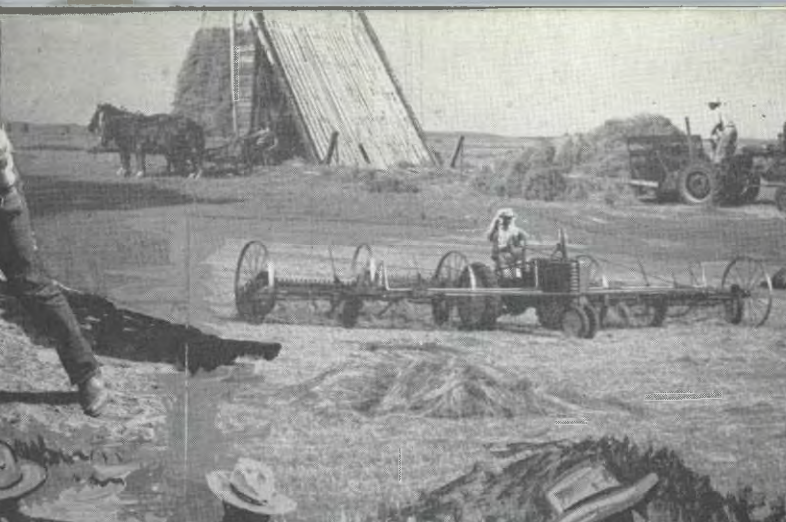
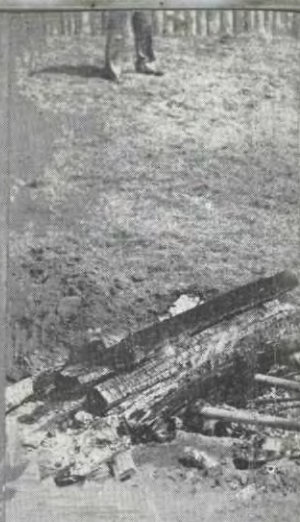
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TYPICAL SANDHILLS SCENES



"God's Own Cow Country"

The Sandhills—"God's Own Cow Country"—a "Sea of Grass"—where men have lived and died, earned their living by the sweat of their brows and overcome untold hardships to convert what was once a veritable desert into the most lush, productive range region known to man anywhere.

Here in the western part of Nebraska, covering an area of 22,000 square miles, we find a soil so light that if it is left uncovered for even a short time, the wind will whip the sand in every direction leaving nothing but "blowouts." In the early days when the settlers headed west in search of the "promised land," the Sandhills were passed by as a place fit for only the prairie dogs and rattlesnakes. Fires had been allowed to run rampant until they were halted by the natural barriers of the region. Shifting sand, often with the aid of a stiff wind, caused severe sand storms and made the area look most undesirable to all passing through.

For many years after the first settlers arrived the Sandhills was open range. After the passing of the Kinkaid Act in 1904, which allowed a man to homestead a section of land, more adventurous people flocked into the country. Fences went up and range wars started. The cattle producers naturally felt that their rights were being trod upon and resented the erection of the fences. For many years this battle went on until finally fences were accepted. Today under heavy stocking of the area, fences are an absolute must. They help to promote utilization of the grasses and prevent any one area from being over-grazed. Those homesteaders, who had done nothing but farm in the areas from whence they came, soon learned that the Sandhills is not a farming country. Those who turned to utilizing the natural grasses of the area for cattle production prospered, but many hundreds returned to the East or went on West—many much poorer and some with more knowledge—in search of a place where the soil could be tilled and crops grown.

Today, after many years of conservation and fire control, the region is marked by grassed-over hills and valleys with occasional clear cool streams winding their way through the valleys. Natural lakes abound. Cherry County alone has over one thousand lakes, many of which are today stocked with game fish of many varieties. The meadows in the wet valleys produce nutritious hay for winter feed and the hills are covered with a great selection—over sixty-five varieties—of grasses that build bone, muscle and feeding capacity. In addition to the numerous lakes and streams, wells produce at 40 to 50 feet and there is ample wind to pump them. In many localities flowing wells gush forth. The Sandhills seem to be floating on an ocean of water. Drouth handicaps production, but never completely eliminates it.

Contrary to popular opinion today, there are not many "wealthy cattle barons" in the Sandhills. In Cherry County in 1950 there were 2,295 owners of cattle listed on the tax rolls. Of these, 1,768 owned 100 head of cattle or less. Only 33 owned 1000 head or more. The average number of head per owner was 104. The last few years have been prosperous ones for the rancher, and they are well deserved. For years he battled against blackleg, scabies, anthrax and Bangs disease to say nothing of the many lesser

scourges that attacked beef animals. He has seen the day when a carload of steers would not bring him as much as four good cows will today. Most of the more successful ranchers have been broke at least once in their lifetime. Then, too, the life of a cowman is not a bed of roses. Some folks have the idea that all that is necessary to "make a million" in cattle is to let nature take its course and "clip the coupons in the fall." Ranch life is a good clean wholesome kind of existence but there is much hard work attached during the winter feeding period, during calving and summer haying.

In 1938 Sandhills cattle producers organized an association which would work for their benefit in selling cattle. Under the guidance of a group of ranchers from the Valentine area, and led by former Governor Sam R. McKelvie, Sandhills Feeder Cattle Producers was born. The name of the association proved somewhat cumbersome and it now operates under the name of Sandhills Cattle Association.

As things turned out, this organization works for the benefit of the buyer of feeder cattle just as much as the seller. Feeders like to come to the Sandhills to purchase their cattle off the range. Here they can see the cows and bulls that produced the cattle they will feed for the next three months to two years. One of the things that discouraged feeders from buying in the Sandhills was the lack of improved roads and road maps which would enable him to find the ranches where the feeder cattle were produced. Sandhills Cattle Association helped solve this problem for them. Each year in July, an annual bulletin called "Sandhills Feeder Cattle" is published. It lists all the members of Sandhills Cattle Association, where they live, their brand, telephone number and what they will have for sale in the fall of the year. This is sent out to over 20,000 feeders in the Corn Belt and other feeding areas and it becomes their constant companion during the trips to the Sandhills to purchase cattle. This bulletin can be had free for the asking by anyone who wishes to receive it.

To supplement the annual bulletin, a twice monthly edition of "Sandhills Round-up" is published during the months of July through November. The information in this newsletter is directed to the feeder and gives him information regarding the prices of cattle that have been sold in the Sandhills, weighing conditions, delivery dates, cattle that are for sale or contract at the time of issue and other general information of interest to finishers of cattle. Subscription price is \$1.00 per season.

To make the job of securing cattle in the Sandhills still easier, the association has branch offices scattered over the territory. A full time office is maintained at Broken Bow during the selling season. At most of these branch offices a guide can be obtained who will show the way to the ranches feeders wish to visit. This service costs the feeder not a penny and can save him many hours of needless wandering over trail roads many miles from the more frequently traveled highways.

The home office of the association is located in Valentine. There Robert E. "Bob" Hamilton serves as Manager. All requests for information should be directed to him.

Sandhills Cattle Association is the only organization of its kind in the world. No other organization undertakes to do all the things it does. Many have considered organization, a few have tried, but only one has succeeded—Sandhills Cattle Association which represents God's Own Cow Country, the "Sea of Grass."

Valentine National Wildlife Refuge

By GEORGE L. WISEMAN

Situated in the heart of the lake area of the Sandhills, the Valentine National Wildlife Refuge is a metropolis for ducks and water birds of many kinds. The refuge comprises approximately 70,000 acres on which thirty lakes and numerous potholes are found with present high water levels.

During periods of migration this refuge area offers a resting and feeding place for many thousands of ducks and geese. The Valentine Refuge is fitted into a carefully planned refuge program which offers haven to migrating waterfowl at strategic locations throughout the country, thus assuring us that this valuable natural resource will be with us always and that the national sport of wildfowl shooting will remain alive for other generations to enjoy.

Each summer several thousand ducks are raised on this refuge by waterfowl remaining here to nest. Most important local nesters are the blue-winged teal, mallard, gadwall, pintail, redhead and ruddy duck. Coots, herons, curlews, snipe, terns and other water birds also are common nesters.

Upland game birds, principally sharp-tailed grouse, pheasant, and prairie chicken, are numerous on the refuge. White-tailed deer and mule deer are also noted occasionally.

Grazing and hay lands are used by local ranchers under a controlled program which offers no competition to nesting waterfowl. Surplus fur bearers, principally muskrat, mink, raccoon, coyote, and skunk, are harvested annually by local trappers on a share basis. One-fourth of the monetary return from the refuge program of economic use is returned to Cherry County and is used to support schools formerly supported by tax money from the lands which are now a part of the refuge. The returned amount in 1951 was over \$11,000.

Six refuge lakes—Hackberry, Dewey, Dads, Willow, Clear and Watts—are open to public fishing during the year. Good catches of crappies, perch, bass, bluegills, and bullheads are made. Other refuge lakes which support fish are used by the Nebraska Game, Forestation and Parks Commission to obtain fish for restocking in other state waters.

NAMES AND ADDRESSES TO BE REMEMBERED

NOTES

Program Courtesy Of

The Nebraska Farmer Printing Co.

Lincoln

Nebraska