LIBRARY

UNITED STATES DEPARTMENT OF AGRICULTURES AUG 111939 SOIL CONSERVATION SERVICE Region Eight Albuquerque, New Mexico

U. S. Dep a ment of Agriculture

Hugh G. Calkins Regional Conservator

SAN MIGUEL COUNTY VILLAGES

Villanueva

562 3

Regional Bulletin No. 51 Conservation Economics Series No. 24 February, 1938



# UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE Region Eight Albuquerque, New Mexico

Hugh G. Calkins Regional Conservator

SAN MIGUEL COUNTY VILLAGES

Villanueva

Regional Bulletin No. 51 Conservation Economics Series No. 24 February, 1938

## 3. Villanueva

The New Mexico State Rural Education Council has selected the villages of San Geronimo, Trujillo, and Villanueva in San Miguel County for joint study by various welfare and land use planning agencies. It was assumed by the Rural Council that each of these villages is typical of a larger group within the county — thus San Geronimo is assumed to be a typical mountain village, Trujillo typical of the scattered dry-farming communities, and Villanueva typical of the villages in the land pockets along the Upper Pecos River. On the basis of limited investigation, it appears that these particular villages are actually representative, and their choice is therefore sound. This paper will deal particularly with some aspects of land use at Villanueva.

The Village of Villanueva is located in a land pocket on the Pecos River in R. 12N., Twp. 15E, New Mexico Principal Meridian. It is served by two dirt roads, one of which, from Bernal on U. S. Highway #56, is graded. The second road follows the course of the Pecos River from just east of San Jose on U.S. Highway #66, and is in a very sad state of disrepair. The village is, therefore, comparatively inaccessible, and this may account for its retaining its indigenous character. Indeed, it appears that the village of Villanueva is now what the more accessible



Spanish-American villages must have been 25 or 30 years ago. The people, who are very friendly and courteous, are very proud of the fact that no "foreigners" have dispossed them of their lands.

Villanueva was founded by people from Las Vegas in 1816, although a grant of land known as the San Miguel del Bado Grant was made to prospective colonizers in 1794. This grant, as finally confirmed by the U.S. Court of Private Land Claims in 1901, contained only 5024 acres in a narrow strip along the Pecos.

## Population

The U. S. Census gives the population of the Villanueva precinct (La Cuesta) as follows:

1930	466
1920	<b>5</b> 92
1910	471

At the present time, the best estimate appears to be 450 persons, ll0 families. The number of voters in the precinct is 320. All the population is Spanish-American.

## Agricultural Land and Crops

The agricultural land available to the village of Villanueva is divided into two parts. The irrigated lands in the valley, and the dry farm lands on top of the high mesas on either side of the river. There are 77 owners of irrigated land in the valley.

All this land is irrigated out of the Pecos River by means of two



long ditches — one on each side of the stream. Only one holding includes more than 20 acres, and it is 100 acres in extent.

All the other holdings range from 20 acres to 4 or 5 acres. The total irrigated land area is approximately 550 acres in extent.

There is a plentiful supply of water in the river at all times as only 2 times in 52 years has the Pecos River been dry at Villanueva. Seven arroyos enter the valley from the east, 6 from the west — all of these damage the agricultural lands in the valley. The dry-farm lands on top of the mesas are practically all used in the cultivation of beans and corn. Altogether the people of. Villanueva have had approximately 600 acres of this land in cultivation at one time or another.

In spite of their present economic distress, the villagers of Villanueva are in a comparatively favorable situation with regard to the ownership of both cultivated and grazing lands, and their holdings might be tabulated as follows:

Class of Land	Acreage	No. of Owners	Range of Holding
Irrigated lands	550 acres	77	4 - 100 (Only 1 holding over 20 acres)
Dry farm lands	600 acres	30	5 - 50
Grazing lands	over 20,000 acres	40	120 - 6270



In the absence of an agronomic survey of Villanueva, the need for somewhat precise data on cropping and yields was met in the following manner: twenty separate fields on which it was possible to secure accurate 1937 cropping and yields information were measured. These totaled 27.08 acres. Thirteen fields on which it was possible to secure accurate 1936 cropping and yields information were also measured. These totaled 21.91 acres.

Because of limitations of time and season, it was impossible to secure a more adequate sample. The 1937 sample is approximately 5% of the irrigated acreage, and the 1936 sample is approximately 4% of the irrigated acreage at Villanueva. However, the fields selected were distributed throughout the valley on both sides of the river, and the local farmers who cooperated in the investigation gave assurance that the yields were typical with the single exception of a bumper crop of beans on one field.

It was possible to secure both 1936 and 1937 cropping and yields information on many of the fields, and in all cases the yields for these two years are strictly comparable. The year 1936, according to local testimony, may be considered as a more or less average year. The floods of early summer in 1937 destroyed the diversion dam. Because of several reasons, not the least of which was a ditch politics fued between the two leading families, the diversion dam was not repaired in time to save the 1937 crop. The effect of this is strikingly shown in the table



showing comparative yields for 1936 and 1937.

This 1937 partial crop failure, coupled with the progressive decline of the yields from the dry farm lands, has resulted in the widespread mortgaging of the dry farm and range lands to various stores in Las Vegas. The L. Ilfeld Company alone, it was estimated, now has mortgages on approximately 6,000 acres of mesa lands belonging to people from Villanueva. These mortgaged lands are not blocked out, but are scattered throughout four townships.

The dry farming operations of the villagers have apparently always been more or less a gamble, but prior to 1934 they usually secured a fair crop one year in 4; and only 1 year in 4 were their dry farm crops a complete failure. The best crop ever secured was in 1933, and it was possible to secure accurate yield data on a single 40 acre tract as follows:

18,600 pounds of shelled corn

8 tons corn fodder

3 tons cane fodder plus 55 gallons of sorghum

5,600 pounds of beans

and numberless squashes and melons. Since then the crop record of this same field has been as follows:

1934 - 600 pounds of beans

1935 - no crop; lost the seed

1936 - no crop; lost 400# bean seed

1937 - no crop (planted 20 acres in corn and cane and 300 # of bean seed - lost all of it)



Thus, all of the dry farm land is given over to the cultivation of corn, cane and beans. Since 1933 the drought has reduced the crop to insignificance. In 1934, 1935, 1936, and 1937 the acreage of land planted has progressively declined and very little over the seed used has been harvested.

The irrigated land is now used almost exclusively for the cultivation of wheat and corn - one-fourth of the land is given to wheat, and one-half to corn. Prior to 1920, a great deal of garden truck was produced at Villanueva, but since then the gardens have not produced. The residents, with singular unanimity, declare that since the mines at Terrero began washing their ore, and allowing their waste to enter the river, the waters of the stream have become polluted, and for that reason they destroy the garden crops. This matter appears to be susceptible of simple proof or disproof.

The usual yield of both wheat and corn are exceptionally high for the area, wheat yielding 18 to 22 bushels to the acre, and corn yielding 30 to 50 bushels of grain to the acre as well as to ton of fodder. Only a little corn and some beans are sold, as the wheat is processed and consumed locally, and most of the corn is fed to local livestock.



The following is a tabular presentation of the results of the investigation of cropping and yields on the irrigated lands:

The	1937	Yields	on 27.08	Acres	Measured
+110	1 1 1	* T C T M 2		20162	MEGIOLITER

		% of	Total	Yield per
Crop	Acreage	Total	Yield	Acre .
Wheat	8.00	29.6	5680#	710# (11.8 bu.)
Corn	12.60	46.5	4100# co 6500# fo	orn 325# corn odder 576# fodder
Alfalfa	3.05	11.3	9600#	3147#
Cane	2.10	7.7	1000#	500#
Beans	.68	2.5	1800#	2647#
Oats	.65	2.4	1500#	2300 <del>#</del>

The 1936 Yields on 21.91 Acres Measured

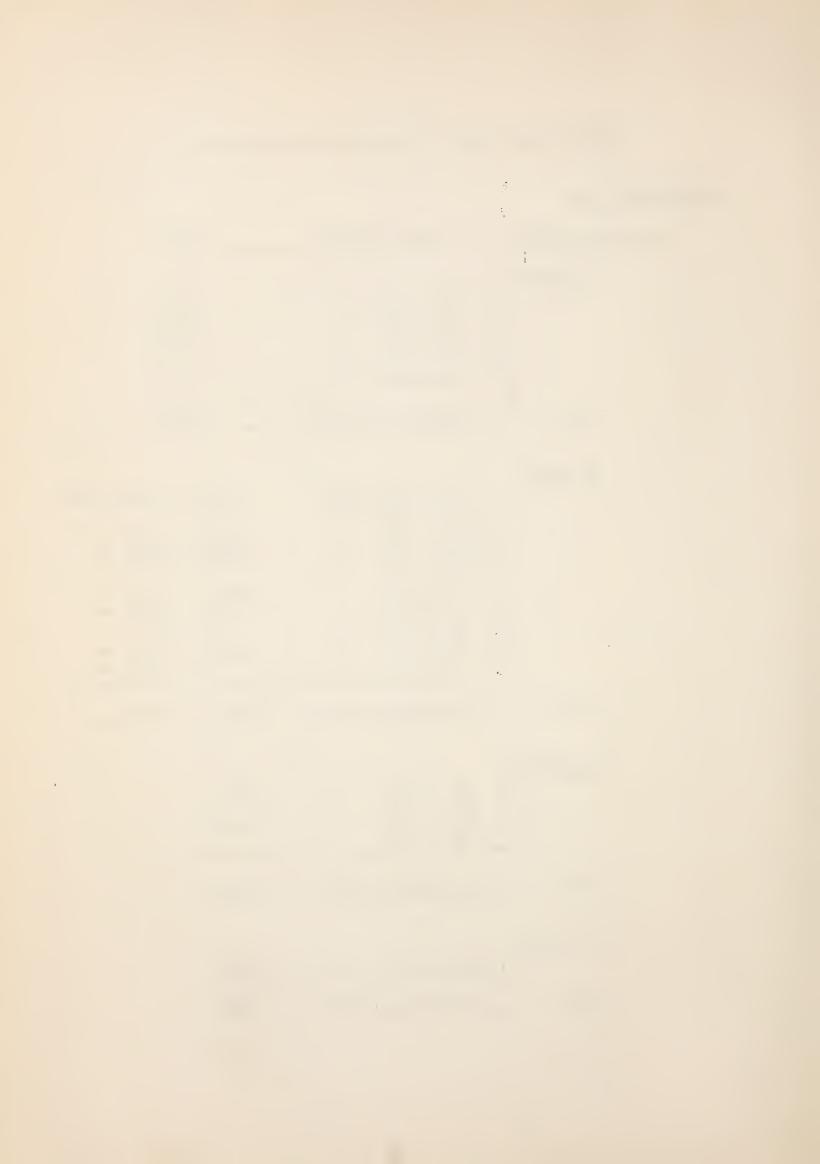
<u> </u>	erus on erear	% of	Total	Yield per
Crop	Acreage	Total	Yield	Acre
Wheat	5.90	26.9	6840 <del>#</del>	1159# (19.3 bu.)
Corn	13.00 .	59•3	41400# corn 43300# fodder	3184# corn : 3330# fodder
Alfalfa	2.14	9.8	12600#	2.9 tons
Cane	•87	4.0	3000 <del>∦</del>	1.72 tons



## CROPPING AND YIELDS INFORMATION ON VILLANUEVA

## PRODUCTION 1937

Measured Fields	Size of Field	Yield
<u>In Wheat</u>	: 1. 720 x 120 feet 2. 70 x 1000 " 3. 480 x 130 " 4. 200 x 320 ") 5. 175 x 260 ")	1200;# 1520;# 300;# 1760;#
Total	353,900 sq. feet	5680#
<u>In Corn</u> :	1. 470 x 145 feet) 220 x 175 ") 2. 1020 x 60 " 3. 1280 x 90 ") 45 x 90 ") 4. 500 x 350 " 5. 50 x1000 " 6. 40 x 110 " 7. 110 x 300 " 85 x 90 "	600ポー 1000ポ fodder  500ポー 1000ポ "  500ポー 600ポ "  1100ポー 1200ポ "  200ポー 400ポ "  no crop  1200ポー 2000ポ "  300ポ "
Total	557,150 sq. feet	4100 6500#
<u>In Alfal</u> :	fa:  1. 338 x 175  2. 300 x 120  3. 390 x 90  4. 43 x 100	900% no crop 600% no crop
Total	13½,550 sq. feet	9500#
In Beans	1. 150 x 208	1800 <u>JL</u>
Total	30,000 sq. feet	1800 <u>†</u>



Ī	n Cane:	2.	430 x 130 110 x 210 85 x 90	1000# no cro		
Т	otal		93,150 sq. feet	1000╬		
I	n Oats:	1.	260 x 110	1500#	fodder	
T	otal	No. of Sub-sequen	28,600 sq. feet	1500;"		
PRODUCTION 19	136			٠		
Measured	Fields		Size of Field	Yield		
Ī	n Wheat:	l.	320 x 470 feet 60 x 1020 " 50 x 1000 "	3360# 2280# 1200#		
Т	otal	w-12-4-4-	261,600 sq. feet	6340#		
- <u>I</u>	n Corn:	2. 3. 4.	1020 x 120 1000 x 70 157 x 350) 50 x 200) 1280 x 90) 45 x 90) 280 x 220 105 x 110) 960 x 130)	6600# 9600# 5400# 3000#	6000# 7000# 11000# 5500# 3800# 10000#	11 11
T	otal		57 <sup>1</sup> ,550 sq. feet	41400	43300#	
<u>I</u>	n Alfalf	1.	390 x 90 338 x 175	600:// 12000: <del>//</del>		
Т	otal		94250 sq. feet	126004		



In Beans:			
	<u>1.</u>	200 x 150	No erop
Total			
		30,000	0
In Cane:			
	1.	170 x 90	1000#
	2.	210 x 110	2000#
Total		33,400 sq. feet	3000 <del>;/</del>

#### Livestock

Mately 600 head of cattle and 150 horses. Five men, the largest cattle owners, own 145 cattle, their herds ranging from 15 to 50 head, and all the rest of the families own from 1 to 10 head. All this stock is grazed on owned grazing land and stubble, and corral fed during a part of each year, generally 3 to 4 months. As there are no vegas and very little alfalfa, practically all the corral feeding consists of corn fodder and wheat straw.

Six men from Villanueva own 6,100 sheep. These are divided into four herds of 3000, 1500, 1000, and 600 sheep.

There is no sharecropping of sheep in the community. These sheep are grazed on owned and leased land yearlong. The leased land is mostly state school land. The sheep men had a difficult time finding grazing during the years of drought, 1934-1936. These sheep bring a considerable cash income into the community.



The people living in the villages along the Pecos in the vicinity of Villanueva use the grazing lands located between the Anton Chico Grant on the east and the Santa Fe National Forest on the west. This strip of land varies in width from 8 to 12 miles, and is located principally in the following townships:

12N-14E, 13N-15E, 12N-14E and 12N-15E

In these four townships the ownership status of the grazing lands, not including the Anton Chico or the San Miguel del Bado Grants, or the Santa Fe National Forest, is as follows:

9440 acres is still public domain 7960 acres is state school land 58680 acres is patented land

76080 Total acres

All of this land, with the exception of the dry farmed acreage, is used in common by the residents of Villanueva, Sena, Cerrito and other villages along the Pecos. The charge for the use of State lands is \$22.50 per section or  $.03\frac{1}{2}$  cents per acre.

The people of Villanueva own approximately 20,000 acres of the patented lands in these townships, the largest single holding being 6,270 acres. The 7 largest owners own 14,000 acres.

Most of the holdings are 160, 320 and 640 acres in extent.

The carrying capacity of all these lands because of the destructive use in the past, is comparatively very low. As might be expected, the lands remaining as public domain in the vicinity of the villages is the very poorest. A reconnaissance grazing



survey conducted by the S.C.S. which was so generalized that only rough approximations of the carrying capacity of any particular area may be based on it, indicated that the carrying capacity of the area coinciding with the public domain boundaries is I cattle unit per 168 acres on a yearlong basis. Actually this portion of the grazing area consists of rocky hill slopes. The same range survey indicates that as at present depleted the other range lands have a carrying capacity that varies from 1 cattle unit per 72 acres to 1 cattle unit per 120 acres. Most of the village used grazing lands is in the 84 and 120 acres per cattle unit categories, and their lands have an average carrying capacity of approximately one cattle unit per 100 acres on a yearlong basis. The Anton Chico Grant lands, owned by the Gross Kelly Co. are in the best condition of any lands in the area and the carrying capacity of these lands is approximately 1 cattle unit per 72 acres on a yearlong basis. This carrying capacity figure is low enough to allow the restoration of the depleted vegetative cover of these lands.

On the basis of these data then, we can make an estimate of the numbers of stock that may be placed on the grazing lands available to the various villages if these are to be used conservatively. The public domain lands, totaling 9440 acres, will support approximately 56 cattle yearlong. The 7960 acres of state land, using the 100 acre per cattle unit estimate, will support



approximately 80 cattle, and the 58,680 acres of privately owned lands using the same carrying capacity, will support 587 cattle. Thus, all of the lands available to the villagers of the various villages in the vicinity of Villanueva will support approximately 767 cattle units on a yearlong basis. An estimate based on an examination of the location of the various lands available is that approximately half of this carrying capacity or approximately 380 cattle units yearlong is available to Villanueva.

Thus, the grazing lands available to this village will support 380 cattle units. Actually, the villagers of Villanueva own approximately 600 cattle, 150 horses, and 6000 sheep or using a 4 to 1 ratio of sheep to cattle, 2250 cattle units. Assuming, on the basis of a brief investigation, that half of the feeding of cattle and horses is corral and stubble feeding, and that the 6000 sheep are away from the area 6 months each year, and on leased state lands in Township 11N-14E three months, then the amount of grazing to be supplied by the local grazing lands is equal to 750 cattle units yearlong. As the available range is only sufficient for 380 cattle units, half of this stock has been existing for some years on what might be termed the range land "capital" of the village of Villanueva, and the depleted condition of these ranges is the result.

The effect of this depleted condition, however, is not limited to the condition of the livestock. In recent years the



destructiveness of the floods sweeping into the valley from the denuded surrounding mesas has progressively increased. In 1937 each of the 12 arroyos entering the valley damaged the irrigation ditches and destroyed valuable irrigable land in the valley floor during the heavy early summer floods. This destruction of the ditches has been indicated, added to the destruction of the diversion dam on the Puerco, which was not replaced until late summer, resulted in a disastrous crop year for Villanueva.

### STATUS OF RANGE LANDS - Villanueva

	Public Domain		
T	13N-14E	2320	
T	13N-15E	2600	
T	15N-17E	920	
T	12N-15 <b>E</b>	3600 9440	acres
	State		
T	13N-14E	2320	
Ī	13N-15E	1440	
T	12N-14E	1920	
T	12N-15E	2280 7960	acres



## Patented

T 13N-14E	15600
-----------	-------

T 13N-15E 16640

T 12N-14E 11680

T 12N-15E <u>14760</u> 58680 acres

#### Wagework

The most prevalent wagework is sheepherding for the large outfits of southeastern New Mexico. Fifty men from Villanueva work at this on a yearlong basis, and another 50 on a seasonal basis. A few have gone to the beet fields of Colorado, and to the cotton fields of Texas, but this labor has been insignificant. The wages received for sheepherding vary from \$25 to \$30 per month in the area where these men work.

Only some 20 families in Villanueva have received relief aid of any kind, and 7 have received Rural Rehabilitation loans, which average \$550 each.

This, in brief, is the picture of the economy of the village of Villanueva. It seems to have maintained its resource base to a greater extent than most of the other Spanish-American villages. Fortunately for the village, the people realize the importance of continuing to maintain that resource base intact, although in the last few years it has become increasingly difficult to do so.

