

Appendix E

FIGURES

Figure 1
Cash Lease Example

Year	Grazing Lease Rates	Hunting Lease Rates	yields	Typical Rate	-	Typical Owner Expenses	=	Typical Net-to-Land	
1980	\$ 5.00	\$ 3.00	} yields	\$ 7.50	-	{ .50 fence	=	\$ 6.53	
	4.75	3.00							{ .47 taxes
	4.50	3.00							
	4.25	2.75							
1981	5.00	3.00	} yields	7.75	-	{ .50 fence	=	\$ 6.77	
	4.75	3.00							{ .48 taxes
	4.75	3.25							
	4.50	2.50							
1982	5.00	3.00	} yields	7.75	-	{ .50 fence	=	\$ 6.77	
	4.75	3.00							{ .48 taxes
	4.75	3.25							
	4.50	2.50							
1983	5.00	3.25	} yields	8.25	-	{ .50 fence	=	\$ 7.23	
	5.00	3.50							{ .52 taxes
	4.75	3.25							
	5.00	3.00							
1984	5.00	3.00	} yields	8.25	-	{ .50 fence	=	\$ 7.23	
	4.75	3.50							{ .52 taxes
	4.75	3.50							
	4.50	3.50							

Figure 2
5-Year Average
Net to Land Values

Land Use Category: Native Pasture

Net Income 1977	Net Income 1978	Net Income 1979	Net Income 1980	Net Income 1981	5-year Avg. Net Income
\$2.60	\$2.85	\$3.05	\$3.30	\$3.50	\$3.06

Figure 3
Share Lease Information Questionnaire
(to be completed by property owner)

INSTRUCTIONS. Appraisal records indicate that you own agricultural land leased on a share basis. On the chart below, please indicate the share payment that you receive and the expenses you pay on each crop. Please specify any crops you receive income from that are not listed on the form.

If you own agricultural land of a type for which you have not received a form (e.g. irrigated cropland, native pasture, timber), please contact the appraisal district immediately.

Your prompt attention to this request will enable the district to appraise agricultural property more accurately and equitably.

Land Class Dry Crop

Crop	G. Sorghum	Wheat	Cotton	(Other)	(Other)
Fill in your share of INCOME from each crop (use fractions)					
1) Grain/Lint					
2) Deficiency Payment					
3) Grazing					
4) Cotton Seed					
5) Other					
Fill in your share of VARIABLE EXPENSES from each crop (use fractions)					
Seed					
Fertilizer					
Insecticide					
Herbicide					
Fungicide					
Hail Insurance					
Irrigation Water					
Harvest					
1) Haul					
2) Gin, bag, tie					
Other					
1)					
2)					
3)					
Fill in your share of FIXED EXPENSES from each crop (use fractions)					
Real Estate Tax					
Wells					
Other					
1)					
2)					
3)					
4)					

Figure 4
Share Lease Agreement

	Percent Planted	x	Owner's Share	x	Price per Unit	x	Quantity	=	Owner's Share
Income									
Grain Sorghum	.90	x	.333	x	4.35cwt.	x	21.65	=	\$ 28.22
Deficiency Payments	.90		.333		.79cwt.		24.20		<u>5.73</u>
Total Income									\$ 33.95
Expenses									
Variable									
Fertilizer	.90	x	.333	x	15.00 acre	x	1	=	\$ 4.50
Harvest	.90		.333		10.00 acre		1		3.00
Haul	.90		.333		.25cwt.		21.65		<u>1.62</u>
									9.12
Fixed									
Property taxes			1.0		1.75acre		1		1.75
Total Expenses =									\$ 10.87
Net-to-Land =									\$ 23.08 per acre

Figure 5
Classification of Native Pasture

Soil Type	Range Site	Acres	Percent	Avg. Herb Yield	Yield Index	Ag Use Class	Productivity Index
Frio Clay Loam	Bottomland	3,403	1.3	4,600	153	I	150
Ligon Clay Loam	Bottomland	2,784	1.1	4,600	153		
Denton Silty Clay 0-1	Deep Upland	3,867	1.5	4,400	147		
Denton Silty Clay 1-3	Deep Upland	4,290	1.7	4,400	147		
Spur Soils	Deep Upland	1,125	.4	4,400	147		
Tobaso Clay 0-1	Redland	1,870	.7	3,700	123	II	120
Tobaso Clay 1-3	Redland	17,906	6.9	3,700	123		
Olton Clay Loam	Clay Loam	2,100	.8	3,600	120		
Angelo Clay Loam 0-1	Clay Loam	8,824	3.4	3,600	120		
Angelo Clay Loam 1-3	Clay Loam	12,117	4.7	3,600	120		
Yohola Clay	Shallow	9,059	3.6	3,500	117		
Kavitt Clay 0-1	Shallow	1,579	.6	3,500	117		
Kavitt Clay 1-2	Shallow	921	.4	3,500	117		
Pedernales Loam	Shallow	5,000	1.9	3,500	117		
Pedernales Sandy Loam	Sandy Loam	2,500	1.0	3,400	113		
Paducah Loam	Mixed Land	3,126	1.2	3,100	103	III	100
Randall Clay	Mixed Land	7,592	2.9	3,100	103		
Obaro Loam	Mixed Land	22,408	8.7	3,100	103		
Estacodo Loam	Hardland	6,222	2.4	3,000	100		
Zapata Loam	Hardland	3,778	1.5	3,000	100		
Travis Sandy Loam	Sandy	20,445	7.9	3,000	100		
Heatly	Sandy	9,528	3.7	3,000	100		
Tivoli	Sandy	10,027	3.9	3,000	100		
Doss Sandy Loam	Tight Sandy	12,328	4.8	2,800	93		
Merata Sandy Loam	Tight Sandy	7,672	3.0	2,800	93		
Brackett	Adobe	985	.4	2,500	83		
Kimbrough	Stoney	3,214	1.2	2,400	80		
Talpa	Stoney	1,786	.7	2,400	80		
Ozona Assoc.	Shallow Hills	3,000	1.2	2,400	80		
Doss Loam Assoc.	Shallow Hills	13,698	5.3	2,400	80		
Cosh-Latom	Shallow Hills	16,302	6.3	2,250	75		
Bandera Clay	Shallow Hills	10,000	3.9	2,250	75		
Brackett-Tanant	Steep Adobe	6,625	2.5	2,000	67	V	65
Tulia Clay	Hardland	9,444	3.7	1,900	63		
Brooks Clay	Hardland	4,556	1.8	1,900	63		
Segovia Gravelly Loam	Steep Rocky	2,321	.9	1,300	43	VI	40
Leakey Gravelly Clay	Steep Rocky	4,641	1.8	1,300	43		
Eckert Stony Soils	Stoney Loam	773	.3	900	30		

Figure 6
Estimated Price per Acre
Native Pasture

Lease	Lease Amount	Total Acreage	Acreage Per Class						Lease Price per Acre	Estimated Price per Acre
			1	2	3	4	5	6		
1	\$ 605	110	5	0	105	0	0	0	\$ 5.50	\$ 5.63
2	1,166	212	0	0	198	14	0	0	5.50	5.43
3	736	92	75	17	0	0	0	0	8.00	7.94
4	2,240	320	80	201	0	39	0	0	7.00	6.75
5	3,000	640	0	0	286	275	79	0	4.69	4.79
6	2,000	350	0	138	212	0	0	0	5.71	5.93
7	8,200	1,640	0	270	504	325	491	50	5.00	4.79
8	4,750	1,057	0	0	198	623	215	21	4.50	4.40
9	640	160	0	123	37	0	0	0	4.00	6.34
10	1,800	300	0	25	35	240	0	0	6.00	4.71

To calculate the estimated price per acre, multiply the acreage per class times the lease rate below, total the results, and divide by total acreage.

Land Class	Base Rate		Index	=	
1	\$ 5.50	x	1.50	=	\$8.25 per acre
2	5.50	x	1.20	=	6.60 per acre
3	5.50	x	1.00	=	5.50 per acre
4	5.50	x	.80	=	4.40 per acre
5	5.50	x	.65	=	3.58 per acre
6	5.50	x	.40	=	2.20 per acre

Figure 7
Calculation of Productivity Values

INCOME		EXPENSES				CAPITALIZATION	
Grazing	Hunting	Fence	Taxes		NTL	÷ Cap = Ag Value	
NP1	\$ 8.25 +	\$ 2.00 -	\$.75 -	\$.65 =	\$ 8.85	÷ .1325 = \$67.00	
NP2	6.60 +	2.00 -	.75 -	.53 =	7.32	÷ .1325 = 55.00	
NP3	5.50 +	2.00 -	.75 -	.45 =	6.30	÷ .1325 = 48.00	
NP4	4.40 +	2.00 -	.75 -	.38 =	5.27	÷ .1325 = 40.00	
NP5	3.58 +	2.00 -	.75 -	.32 =	4.51	÷ .1325 = 34.00	
NP6	2.20 +	2.00 -	.75 -	.22 =	3.23	÷ .1325 = 24.00	

Figure 8
Net to Land for Improved Pastures

Lease Number	Lease Amount	Total Acreage	Acreage per class					IP	NP Lease Amount	IP Lease Amount	IP per Acre
			NP1	NP2	NP3	NP4					
1	\$1,880	280	15	102	0	98	65	\$ 1,228	\$ 652	\$ 10.03	
2	2,600	320	40	111	79	0	90	1,497	1,103	12.26	
3	7,105	980	70	259	412	39	200	4,725	2,380	11.90	

To estimate the lease amount per acre for improved pasture in a mixed lease, use the native pasture lease rates (Figure 6) to estimate the amount attributable to native pasture. Subtracting this amount from the gross lease leaves the improved pasture lease amount. Dividing that amount by the acres of improved pasture gives the rate per acre.

Worksheet, Irrigated Pasture Lease 1

Class	Acreage		Lease		Subtotal
NP1	15	x	\$8.25	=	\$ 124.00
NP2	102	x	6.60	=	673.00
NP3	0	x	5.50	=	0
NP4	98	x	4.40	=	<u>431.00</u>
			Native Pasture lease	=	\$1,228.00
					0

Gross lease	=	\$ 1,880.00	
NP Lease	=	<u>- 1,228.00</u>	
IP Lease	=	\$ 652.00	
IP lease per acre	=	\$ 652.00	+ 65 = \$10.03

**Figure 9
Classification of Dry Cropland**

Soil Type	Acres	% of Total	Wheat Yield	Wheat Index	Grain Sorghum	Grain Index	Cotton Yield	Cotton Index
Spur Soils	6,550	3.3	20	133	2000	133	275	138
Frio Clay Loam	1,338	.7	20	133	2000	133	275	138
Angelo Clay Loam 1-3	9,326	4.7	20	133	1750	117	250	125
Denton Silty Clay 0-1	20,035	10.1	20	133	1750	117	250	125
Ligon Clay Loam	4,368	2.2	20	133	1250	83	250	125
Yohola Clay	912	.5	15	100	2000	133	250	125
Tobasa Clay 0-1	11,899	6.0	20	133	1750	117	225	113
Pedernales	12,899	6.5	15	100	1250	83	200	100
Olton Clay Loam	17,849	9.0	15	100	1500	100	200	100
Tobasa Clay 1-3	6,148	3.1	15	100	1750	117	200	100
Obero Loam	1,597	.8	12	80	1500	100	175	88
Angelo Clay Loam 3-5	9,128	4.6	15	100	1500	100	200	100
Denton Silty Clay 1-3	16,064	8.1	15	100	1500	100	200	100
Paducah Loam	10,114	5.1	15	100	1500	100	200	100
Kavitt Clay 0-1	1,196	.6	15	100	1250	83	200	100
Denton Silty Clay 3-5	1,785	.9	12	80	1250	83	150	75
Estacado Loam	24,598	12.4	12	80	1250	83	175	88
Kavitt Clay 1-3	13,684	6.9	15	100	1000	67	150	75
Pedernales Sandy	5,955	3.0	15	100	1250	83	150	76
Travis Sandy Loam	4,567	2.3	15	100	1000	67	150	75
Zapata Loam	3,966	2.0	12	80	1000	67	150	75
Abilene Sandy Loam	9,718	4.9	10	67	750	50	150	75
Demonia Fine Sand	4,569	2.3	10	67	750	50	125	63

Figure 10
County Dry Cropland Statistics (1985)
Ferguson County

Crop	Acres Planted	Acres Harvested	1985 Yield	Price
Wheat	78,800	72,000	17.5000	\$ 3.03 bushel
Grain Sorghum	59,700	57,500	1,300.0000	\$ 3.93 cwt.
Cotton (lint)	45,800	44,500	175.0000	\$ 0.508 lb.
Cotton (seed)	45,800	44,500	0.1354	\$ 55.00 ton

ADJUSTED YIELD PER ACRE*

Crop	Harvested Acres	Planted Acres	Percent Harvested	Yield per Harvested Acre	Yield per Planted Acre
Wheat	72,000	+ 78,800	= .91	x 17.5 bu	= 15.9 bu.per acre
Grain Sorghum	57,500	59,700	.96	13.0 cwt.	12.48 cwt. per acre
Cotton lint	44,500	45,800	.97	175.0 lb.	169.75 per acre
Cotton seed	44,500	45,800	.97	.1354 tons	.1313 per acre

*See page 28 for an explanation of adjusted yields.

Figure 11
Share Lease: Ferguson County
Dry Cropland Wheat (1985)

	Percent Harvested*		Share		Units		Price per Unit	=	Total
INCOME									
1) Wheat	.725	x	.333	x	15.9	x	\$ 3.03	=	\$11.63
2) Grazing	.725	x	.333	x	1.0	x	24.00	=	5.79
3) Deficiency Payment	.725	x	.333	x	15.0	x	1.08	=	3.91
4) Grazing Set Aside	.275	x	.333	x	1.0	x	24.00	=	<u>2.20</u>
					Total Income			=	\$ 23.53
VARIABLE EXPENSES									
Fertilizer	.725	x	.333	x	1.0	x	\$ 9.24	=	\$ 2.23
Harvest	.725	x	.333	x	1.0	x	12.00	=	2.90
Haul	.725	x	.333	x	15.9	x	.15	=	.57
Fertilizer Set Aside	.275	x	.333	x	1.0	x	9.24	=	<u>.85</u>
					Total Variable Expenses			=	\$ 6.55
FIXED EXPENSES									
Taxes									1.000
									<u>\$ 1.07</u>
								Total Cost	= \$ 7.62
								Net to Land	= \$ 15.91

* Percentage of acreage the farmer can harvest if participating in the deficiency payment program.

Figure 12
Share Lease: Ferguson County
Dry Cropland Grain Sorghum (1985)

	Percent Harvested*		Share		Units		Price per Unit		Total
INCOME									
1) Grain Sorghum	.90	x	.333	x	12.48	x	\$3.93	=	\$ 14.70
2) Deficiency Payment	.90	x	.333	x	13.00	x	.79	=	<u>3.08</u>
							Total Income	=	\$ 17.78
VARIABLE EXPENSES									
Fertilizer	.90	x	.333	x	1.0	x	\$18.48	=	\$5.54
Insecticide	.90	x	.333	x	1.0	x	3.00	=	.90
Harvest	.90	x	.333	x	1.0	x	12.00	=	3.60
Haul	.90	x	.333	x	12.48	x	.25	=	<u>.94</u>
							Total Variable Expenses	=	\$ 10.98
FIXED EXPENSES									
Taxes			1.000						<u>1.07</u>
							Total Cost	=	\$ 12.05
							Net to Land	=	\$ 5.73

* Percentage of acreage the farmer can harvest if participating in the deficiency payment program.

Figure 13
Share Lease: Ferguson County
Dry Cropland Cotton (1985)

	Percent Harvested*	x	Share	x	Units	x	Price per Unit	=	Total
INCOME									
1) Cotton Lint	.70	x	.25	x	169.75	x	\$.508	=	\$ 15.09
2) Cotton Seed	.70	x	.25	x	.1313	x	\$ 55.00	=	1.26
3) Deficiency Payment	.70	x	.25	x	185.0	x	**\$.2370	=	<u>7.67</u>
					Total Income			=	\$ 24.02
VARIABLE EXPENSES									
Fertilizer	.70	x	.25	x	1.0	x	\$9.00	=	\$ 1.58
Herbicide	.70	x	.25	x	1.0	x	6.00	=	1.05
Gin, bag, tie	.70	x	.25	x	169.75	x	.08	=	<u>2.38</u>
					Total Variable Expenses			=	\$ 5.01
FIXED EXPENSES									
Taxes			1.000						<u>1.07</u>
					Total Cost			=	\$ 6.08
					Net to Land			=	\$ 17.94

* Percentage of acreage the farmer can harvest if participating in the deficiency payment program.

** Deficiency payments for cotton are calculated to include both lint and seed.

Figure 14
Agricultural Use Values Per Dry Crop Sub-Class

Sub-Class	Base Net to Land		Productivity Index		Sub-Class Net to Land		Cap Rate		Ag Use Value
DC1	\$ 16.06	x	1.35	=	\$ 21.68	+	.1325	=	\$ 164.00
DC2	16.06	x	1.20	=	19.27	+	.1325	=	145.00
DC3	16.06	x	1.00	=	16.06	+	.1325	=	121.00
DC4	16.06	x	.80	=	12.85	+	.1325	=	97.00
DC5	16.06	x	.64	=	10.28	+	.1325	=	78.00

Figure 15
Classification of Irrigated Cropland

Soil Types	% of Acres	Wheat Total	Wheat Yield	Wheat Index	Grain Sorghum	Grain Index	Cotton Yield	Cotton Index	Compos Index
Spur Soils	273	5.5	30	133	3000	120	450	138	130
Frio Loam	798	16.1	30	133	3250	130	450	138	133
Tobasa Clay 0-1	154	3.1	30	133	3000	120	425	131	128
Angelo Clay Loam 1-3	897	18.1	22.5	100	2500	100	325	100	100
Yohola Clay	764	15.4	25	111	2300	92	325	100	100
Olton Clay Loam	650	13.1	22.5	100	2300	92	325	100	100
Tobasa Clay 1-3	203	4.1	22.5	100	2300	100	350	108	100
Denton Silty Clay 1-3	451	9.1	18	80	2000	80	250	77	80
Paducah Loam	625	12.6	18	80	2000	80	250	77	80
Kavitt Clay	143	2.9	18	80	2000	80	275	85	85

Figure 16
Net-to-Land for Irrigated Cropland

County	Lease No.	Lease Amount	Acreage	Acres per class			Lease Price per Acre	Estimated Price per Acre *
				1	2	3		
Ferguson	1	\$19,200	480	45	375	60	\$ 40	\$ 40.13
Deere	2	6,400	160	0	160	0	40	40.00
Deere	3	3,600	80	25	35	20	45	41.75
Deere	4	6,000	120	105	15	0	50	50.50
Case	5	3,500	100	0	10	90	35	32.80
Case	6	3,600	80	55	10	15	45	46.75

To calculate the estimated price per acre, multiply the acreage per class times the lease rate below, total the results, and divide by total acreage.

	Base Rate		Index		
Land Class 1	40	x	1.30	=	\$52.00 per acre
Land Class 2	40	x	1.00	=	\$40.00 per acre
Land Class 3	40	x	.80	=	\$32.00 per acre