

Appendix E
Detailed Information for Agricultural Resources

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Irrigation

Surveys of the BGRWPA counties were completed in 1994 by the TWDB and in 1997, and every five years thereafter, by the US Department of Commerce (Census of Agriculture). The total irrigated acreage for the BGRWPA was 214,096 acres in the 1994 survey, 186,955 acres in the 2007 survey, and 171,052 acres in 2017.

Irrigated acreage has declined from 1994 to the present time in the Cross Timbers Region by 33,535 acres. Acreage in Comanche and Erath Counties comprise the majority of total irrigated acreage in the region at 39 and 32 percent, respectively.

For the Rolling Plains Region, irrigated acreage decreased by 35,498 during the same period. The region is continuing in its trend toward dry land crops such as small grains, hay and silage. Haskell and Knox Counties contain the largest portions of total irrigated acreage in the region at 32 and 24 percent, respectively.

In the Southeast and Central Region, total irrigated acreage decreased by 43,044 acres between 1994 and present day. This region contains the greatest quantity of irrigated acreage in the BGRWPA at approximately 34 percent of all irrigated acreage. Robertson and Brazos Counties contain the most irrigated acreage among the counties in the Brazos G area.

The Blackland Region is the only region for which irrigated acreage has increased between 1994 and now; the total increase across this period within the region is 10,857 acres. Nearly 2/3 of the total irrigated acreage in the Blackland Region is within Falls, Johnson, Milam, Bell and McLennan Counties.

Livestock

The Cross Timbers region is a major dairy area of the state. Erath County is the leading county in the Cross Timbers region as well as the Brazos G RWPA as a whole in terms of the number of dairy cows; Comanche County ranks second followed by Hamilton County in the Blacklands region at a distant third. Over 80 percent of the total number of dairy cows in the Brazos G RWPA are located in Erath and Comanche Counties. Dairy water requirements vary widely, depending on the types of waste removal and cow washing systems. Surveys of 11 dairies in Erath County in the early 1990s showed a daily water use of about 100 gallons per milking cow on dairies with sprinklers for washing cow udders prior to milking. The water use included about 30 gallons of drinking water, 40 gallons for manure removal and 30 gallons for washing cow udders prior to milking. If the dairy does not use a cow washing system, the daily water use averaged about 80 gallons per milking cow. For an average of 100 gallons of water per day per milking cow, the BGRWPA dairy water use for 96.112 milking cows is 897 acre feet per month. The source of this water is virtually all ground water from the Trinity Aquifer as each dairy has its own water supply. With farm numbers declining and size increasing more producers are adopting the latest technology to increase profitability. The evolution from pasture and dry lot to free stall barns will require greater water use. Misting and evaporative systems for summer

months will be needed for animal cooling purposes. Manure removal, sanitation, and disinfection will elevate water use as well

Other significant livestock raised in the BGRWPA in 2017 were cattle and calves, beef cattle, swine, and sheep. Total number of swine and sheep of all ages were 17,011 and 116,934, respectively. Beef cows numbered 609,657 head and all cattle and calves totaling 2,007,473.

Table E-1. 2017 Agricultural Production Statistics

<i>Agricultural District</i>	<i>Market Value (\$1,000)</i>			<i>Livestock % Value</i>	<i>Area (Acres)</i>			
	<i>Crops</i>	<i>Livestock</i>	<i>Total</i>		<i>Farmland</i>	<i>Cropland</i>	<i>Harvested</i>	<i>Irrigated</i>
Rolling Plains (2N and 2S)								
Fisher	26,969	8,770	35,739	25%	477,985	248,701	117,465	10,483
Haskell	37,084	17,234	54,318	32%	565,019	292,993	171,959	14,799
Jones	29,853	11,637	41,490	28%	516,507	313,784	163,775	4,584
Kent	1,027	8,839	9,866	90%	577,532	45,233	8,274	*
Knox	13,546	46,982	60,528	78%	488,811	207,442	84,359	11,204
Nolan	25,790	10,819	36,609	30%	466,360	161,878	82,492	3,500
Stonewall	6,878	8,665	15,543	56%	468,896	113,441	32,801	829
Taylor	11,155	20,386	31,541	65%	484,257	159,183	73,715	1,237
Subtotal, Rolling Plains	152,302	133,332	285,634	47%	4,045,367	1,542,655	734,840	46,636
Cross Timbers (3)								
Callahan	3,043	28,197	31,240	90%	477,812	85,494	38,364	228
Comanche	23,374	149,891	173,265	87%	486,940	137,619	79,666	17,388
Eastland	4,969	18,550	23,519	79%	489,773	80,149	36,910	1,862
Erath	19,105	293,172	312,277	94%	625,532	134,317	83,481	14,310
Hood	7,693	11,251	18,944	59%	205,407	39,738	26,751	2,746
Palo Pinto	10,280	32,939	43,219	76%	572,847	72,990	24,915	4,383
Shackelford	812	15,797	16,609	95%	536,848	49,374	12,211	315
Somervell	1,152	2,948	4,100	72%	82,967	15,692	10,890	348
Stephens	568	10,056	10,624	95%	470,191	37,077	7,959	274
Throckmorton	5,519	21,741	27,260	80%	506,892	157,174	55,675	384
Young	2,599	19,095	21,694	88%	574,982	114,482	30,912	1,863
Subtotal, Cross Timbers	79,114	603,637	682,751	88%	5,030,191	924,106	407,734	44,101
Blacklands (4)								
Bell	38,084	38,947	77,031	51%	487,052	152,593	125,623	2,305
Bosque	6,950	38,109	45,059	85%	626,135	81,212	50,870	1,366
Coryell	8,180	28,096	36,276	77%	456,973	92,075	46,919	1,372
Falls	42,395	115,545	157,940	73%	391,898	203,819	134,445	3,964
Hamilton	6,358	55,668	62,026	90%	483,812	86,099	42,709	1,509
Hill	64,572	49,429	114,001	43%	523,070	256,384	222,565	1,197



<i>Agricultural District</i>	<i>Market Value (\$1,000)</i>			<i>Livestock % Value</i>	<i>Area (Acres)</i>			
	<i>Crops</i>	<i>Livestock</i>	<i>Total</i>		<i>Farmland</i>	<i>Cropland</i>	<i>Harvested</i>	<i>Irrigated</i>
Johnson	17,116	40,734	57,850	70%	411,151	136,697	105,382	3,735
Lampasas	2,019	16,421	18,440	89%	469,013	40,422	17,210	447
Limestone	10,018	56,239	66,257	85%	492,631	72,996	51,347	479
McLennan	59,457	120,209	179,666	67%	573,288	262,493	222,963	2,232
Milam	33,273	96,245	129,518	74%	497,481	168,032	119,711	2,680
Williamson	66,101	48,822	114,923	42%	559,261	231,511	192,774	1,586
Subtotal, Blacklands	354,523	704,464	1,058,987	67%	5,971,765	1,784,333	1,332,518	22,872
Southeast and Central (5S and 8N)								
Brazos	15,603	76,034	91,637	83%	290,539	50,016	37,633	12,059
Burleson	22,340	36,251	58,591	62%	333,334	67,888	53,045	17,941
Grimes	14,041	33,468	47,509	70%	340,833	54,265	45,233	3,981
Lee	15,226	41,717	56,943	73%	328,668	41,365	31,673	788
Robertson	24,623	133,520	158,143	84%	474,785	107,261	82,635	20,356
Washington	5,456	30,159	35,615	85%	320,184	68,726	52,761	2,318
Subtotal, Southeast and Central	97,289	351,149	448,438	78%	2,088,343	389,521	302,980	57,443
Region Total	683,228	1,792,582	2,475,810	72%	17,135,666	4,640,615	2,778,072	171,052
Source: 2017 Census of Agriculture: https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/1/table/1 .								
*Information withheld to avoid disclosing data for individual farms.								

Table E-2. Livestock Numbers—2017 Census of Agriculture

<i>Agricultural District</i>	<i>Cattle and Calves</i>	<i>Beef Cows</i>	<i>Dairy Cows</i>	<i>Swine</i>	<i>Sheep</i>
Rolling Plains (2N and 2S)					
Fisher	19,981	11,006	3	*	138
Haskell	26,684	10,072	0	314	318
Jones	22,624	11,553	0	226	1,977
Kent	17,095	10,448	0	0	0
Knox	27,010	7,096	0	*	*
Nolan	13,935	6,896	0	486	205
Stonewall	24,364	11,018	0	54	480
Taylor	41,163	*	*	186	1,050
Subtotal, Rolling Plains	192,856	68,089	3	1,266	4,168
Cross Timbers (3)					
Callahan	49,682	27,442	0	156	1,645
Comanche	118,048	39,747	26,477	1,324	12,196
Eastland	43,876	24,496	86	1,210	3,953
Erath	183,469	42,250	54,378	296	9,041
Hood	22,453	13,182	0	198	1,460
Palo Pinto	43,186	21,998	0	127	2,397
Shackelford	29,764	15,949	0	6	*
Somervell	7,347	4,057	0	28	1,104
Stephens	23,196	12,982	0	125	549
Throckmorton	41,715	17,954	0	23	*
Young	38,181	*	*	257	621
Subtotal, Cross Timbers	600,917	220,057	80,941	3,750	32,966
Blacklands (4)					
Bell	36,868	*	*	803	5,150



<i>Agricultural District</i>	<i>Cattle and Calves</i>	<i>Beef Cows</i>	<i>Dairy Cows</i>	<i>Swine</i>	<i>Sheep</i>
Bosque	51,327	24,182	0	229	2,349
Coryell	54,847	26,279	0	538	12,101
Falls	115,649	*	*	206	2,242
Hamilton	66,072	26,686	8,324	471	15,680
Hill	60,770	*	*	640	3,579
Johnson	62,889	28,786	3,606	523	3,139
Lampasas	27,589	*	*	110	13,746
Limestone	77,749	37,435	310	239	737
McLennan	86,168	36,934	2,872	590	6,121
Milam	80,225	*	*	978	2,700
Williamson	78,853	34,109	0	377	6,929
Subtotal, Blacklands	799,006	214,411	15,112	5,704	74,473
Southeast and Central (5S and 8N)					
Brazos	63,394	31,506	56	1,468	2,450
Burleson	56,360	35,575	0	794	844
Grimes	57,350	*	*	858	726
Lee	76,128	40,019	0	1,144	767
Robertson	93,789	*	*	1,110	148
Washington	67,673	*	*	917	392
Subtotal, Southeast and Central	414,694	107,100	56	6,291	5,327
Region Total	2,007,473	609,657	96,112	17,011	116,934
Source: 2017 Census of Agriculture: https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/1/table/1 .					
*Information withheld to avoid disclosing data for individual farms.					

Table E-3. Selected Crop Acreages—2017 Census of Agriculture

Agricultural District	Grains			Cotton	Soybeans	All Hay & Silage	Peanuts	Total in County
	Corn	Sorghum	Wheat					
Rolling Plains (2N and 2S)								
Fisher	2,478	*	*	76,475	0	10,845	0	89,798
Haskell	*	5,767	81,389	85,786	0	6,340	1,107	180,389
Jones	0	1,852	67,055	79,795	0	13,687	0	162,389
Kent	0	*	4,639	2,043	0	1,440	0	8,122
Knox	0	*	62,024	16,527	0	5,482	0	84,033
Nolan	*	1,590	15,274	60,821	0	6,159	0	83,844
Stonewall	0	*	4,411	23,047	0	4,537	0	31,995
Taylor	0	3,095	31,449	18,085	0	20,481	0	73,110
<i>Subtotal, Rolling Plains</i>	2,478	12,304	266,241	362,579	0	68,971	1,107	713,680
Cross Timbers (3)								
Callahan	0	*	21,892	*	0	15,638	0	37,530
Comanche	1,060	781	3,103	6,050	*	48,609	2,136	61,739
Eastland	*	*	2,805	*	0	30,442	*	33,247
Erath	*	1,449	1,401	195	0	70,205	177	73,427
Hood	0	0	*	0	0	23,503	0	23,503
Palo Pinto	0	0	1,840	0	0	20,940	0	22,780
Shackelford	*	0	5,734	*	0	4,879	0	10,613
Somervell	0	0	0	0	0	10,483	0	10,483
Stephens	0	300	1,506	0	0	6,146	0	7,952
Throckmorton	0	*	45,532	2,681	0	6,956	0	55,169
Young	0	0	18,687	777	0	11,192	0	30,656
<i>Subtotal, Cross Timbers</i>	1,060	2,530	102,500	9,703	0	248,993	2,313	367,099
Blacklands (4)								
Bell	67,409	7,264	14,635	6,261	*	28,533	0	124,102



Agricultural District	Grains			Cotton	Soybeans	All Hay & Silage	Peanuts	Total in County
	Corn	Sorghum	Wheat					
Bosque	3,965	1,299	5,035	6,243	0	33,526	0	50,068
Coryell	1,657	4,705	6,596	*	5,111	23,891	0	41,960
Falls	66,617	2,455	18,087	4,676	3,499	28,434	0	123,768
Hamilton	*	1,335	2,946	742	*	30,199	0	35,222
Hill	102,992	3,587	38,929	20,690	352	46,187	0	212,737
Johnson	21,843	2,585	15,826	3,634	4,056	56,063	0	104,007
Lampasas	0	0	2,242	0	0	13,643	0	15,885
Limestone	7,114	637	*	4,687	*	34,760	0	47,198
McLennan	88,312	5,243	35,796	11,308	*	65,699	0	206,358
Milam	45,752	10,072	7,994	13,473	1,048	39,064	0	117,403
Williamson	108,423	8,970	13,714	27,204	0	33,790	0	192,101
<i>Subtotal, Blacklands</i>	514,084	48,152	161,800	98,918	14,066	433,789	0	1,270,809
Southeast and Central (5S and 8N)								
Brazos	1,788	1,428	0	11,527	0	20,642	0	35,385
Burleson	8,618	2,802	*	9,262	1,048	29,192	0	50,922
Grimes	*	*	900	*	0	40,308	0	41,208
Lee	355	*	*	0	*	30,504	0	30,859
Robertson	19,593	3,746	*	12,309	4,192	39,439	0	79,279
Washington	46	0	*	*	0	51,656	0	51,702
<i>Subtotal, Southeast and Central</i>	30,400	7,976	900	33,098	5,240	211,741	0	289,355
Region Total	548,022	70,962	531,441	504,298	19,306	963,494	3,420	2,640,943
Source: 2017 Census of Agriculture - https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/1/table/1								
*Information withheld to avoid disclosing data for individual farms.								

Table E-4. Summary of Irrigation Surveys

<i>Agricultural District</i>	<i>Irrigated Acreage</i>		
	<i>2007 US Agricultural Census</i>	<i>2012 US Agricultural Census</i>	<i>2017 US Agricultural Census</i>
Rolling Plains (2N and 2S)			
Fisher	4,569	2,553	10,483
Haskell	35,058	27,500	14,799
Jones	3,877	3,576	4,584
Kent	815	1,092	*
Knox	21,929	21,583	11,204
Nolan	5,158	3,307	3,500
Stonewall	2,399	741	829
Taylor	5,087	1,095	1,237
<i>Subtotal, Rolling Plains</i>	78,892	61,447	46,636
Cross Timbers (3)			
Callahan	633	704	228
Comanche	12,627	18,101	17,388
Eastland	5,141	8,930	1,862
Erath	12,101	12,337	14,310
Hood	4,336	2,821	2,746
Palo Pinto	601	712	4,383
Shackelford	*	*	315
Somervell	473	59	348
Stephens	226	*	274
Throckmorton	1,358	*	384
Young	*	229	1,863
<i>Subtotal, Cross Timbers</i>	37,496	43,893	44,101



Agricultural District	Irrigated Acreage		
	2007US Agricultural Census	2012 US Agricultural Census	2017 US Agricultural Census
Blacklands (4)			
Bell	2,746	3,084	2,305
Bosque	1,043	656	1,366
Coryell	767	420	1,372
Falls	4,361	5,069	3,964
Hamilton	763	619	1,509
Hill	1,189	920	1,197
Johnson	1,907	2,386	3,735
Lampasas	437	166	447
Limestone	759	330	479
McLennan	2,937	3,509	2,232
Milam	2,784	2,486	2,680
Williamson	964	1,281	1,586
<i>Subtotal, Blacklands</i>	20,657	20,926	22,872
Southeast and Central (5S and 8N)			
Brazos	9,027	7,291	12,059
Burleson	14,480	19,598	17,941
Grimes	1,991	1,609	3,981
Lee	1,433	940	788
Robertson	21,541	19,679	20,356
Washington	1,438	1,438	2,318
<i>Subtotal, Southeast and Central</i>	49,910	50,555	57,443
Region Total	186,955	176,821	171,052
Source: 2017 Census of Agriculture - https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/1/table/1 * Withheld to avoid disclosing data for individual farms			

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