

LR 118 Preliminary Report

Senator Schrock introduced LR 118, an interim study to evaluate issues related to earmarking of personal property tax revenue from irrigation equipment (pivots, pumps, pipes, motors, etc.) for natural resources districts. Natural resource districts have additional obligations under LB 962 for monitoring of water levels and water appropriations in any basin designated by Department of Natural Resources as fully or over appropriated. Funding for these additional duties are not available under NRD levy limits in some areas, yet these same duties are integral to water resources management under the law.

The principal obstacle to LR 118 is the inaccessibility of accurate tax revenue information on irrigation equipment. Aggregated personal property tax revenue is available at state and county level, but not for component types of personal property. Accurate information on this portion of tax revenue would only be available by hand audit of each property parcel's tax card in each county. According to the Nebraska Association of County Officials, some counties have computerized recording of this information, but there is no software available for such a county to recover the information. Therefore, actual tabulation of irrigation equipment tax revenue is not feasible, and it may only be estimated, even for Legislative hearing, if a congruent bill is introduced.

The Legislative Fiscal Office (LFO) has offered a "best estimate" of irrigation equipment personal property tax revenue, approximately \$8 million for 2004. This represents 29% of the total agricultural personal property tax revenue for 2004, \$27.8 million. LFO's estimate was based on probable irrigation equipment market values using data from the 2002 USDA census for Nebraska. LFO compared estimated total agricultural equipment values for irrigated farms and non irrigated farms, assuming the difference to be the value of irrigation equipment. USDA's market values were derived from "a sample of farms". The USDA information and LFO memo are attached below.

By their nature, estimates are subject to disagreement. LFO presents a number of disclaimers to accuracy, and opponents to earmarking irrigation equipment tax revenue will have an opportunity to challenge the amount. We do know some things for sure, however. We know through DNR how many irrigation wells are active now and historically, by county and within any NRD. We know from the 2002 USDA report that 36.4% of all Nebraska farms have irrigation, that there is a pattern of larger, but fewer farms between 1997 and 2002. We also know that 1.8 million more acres were irrigated in 2002 than 1997, suggesting a relatively growing proportion of irrigation equipment being taxed compared to any agricultural personal property.

Irrigation equipment is expensive, but much farm equipment is expensive. Valmont Industries, a major manufacturer estimates a grower will pay \$43-46 thousand for a center pivot alone. Pumps cost \$10-30 thousand, depending on well depth, motors cost between \$7,500 and \$10,500, and drive generators \$1,850. These costs are depreciated for tax purposes in seven years, much shorter than the 25 year normal lifespan, so

irrigation equipment tax revenue could be uneven, but nevertheless, upgrades and expensive replacement components may be more frequently taxed.

The potential utility of LR 118 for ultimate implementation in law might be limited due to some expected obstacles. Briefly, any resulting bill will meet institutional resistance in Revenue Committee as they have a tradition of opposing "earmarked" tax revenue on general principles. Any such law must meet Constitutional scrutiny for having uniformity and some rational basis connecting the beneficial purpose with the tax burden. Separating irrigation equipment tax revenue to benefit irrigation regulation and management seems rationally related. Other beneficiaries of personal property tax revenue, county governments and school districts, may object for obvious reasons. Replacement of local school resources through the formula for state aid to education will be automatic, but could offend wider state policies on real property taxation.

To: Senator Schrock – District #38
Ron Theis – Legislative Aide
From: Doug Nichols - Legislative Fiscal Office
RE: Irrigation Equipment
Date: August 15, 2005

You wanted to know the value of irrigation equipment (LR 118). The Department of Property Assessment and Taxation collects personal property tax information on agricultural machinery and equipment. However, the value of irrigation equipment is not itemized. The Legislative Fiscal Office (LFO) estimated the value of irrigation equipment using Census data. See below.

AMOUNT: It is estimated that personal property taxes on irrigation equipment could amount to \$8 million in 2004.

METHOD: The LFO used data from the 2002 Census of Agriculture for Nebraska to estimate the value of irrigation equipment. The Ag Census has an item called “estimated market value of all machinery and equipment”. This item is on both irrigated and nonirrigated farms. The irrigated equipment value was subtracted from the nonirrigated value to arrive at an amount that was assumed to be the value of irrigation equipment. It was assumed that nonirrigated farms would not have any irrigation equipment and irrigated farms would have such equipment so the difference would be the value of irrigation equipment. It is possible that the amount estimated in this manner includes more than irrigation equipment. However, the LFO has not found any other source of data to estimate the value of irrigation equipment. Estimating irrigation equipment in this manner resulted in such equipment being slightly less than 1/3 of all agricultural machinery and equipment.

Amounts that appear on a fiscal note may differ due to the specifics of the legislation, cash flow considerations, and/or additional information received after this request was prepared.

Please feel free to contact me if you require further information.

Table 9. Land in Farms, Harvested Cropland, and Irrigated Land, by Size of Farm: 2002 and 1997

[For meaning of abbreviations and symbols, see introductory text]

All farms	Farms		Land in farms (acres)		Harvested cropland (acres)		Irrigated land (acres)	
	2002	1997	2002	1997	2002	1997	2002	1997
Land in farms	49,355	54,539	45,903,116	45,853,656	17,336,624	17,897,591	7,625,170	7,065,556
Farms by size:								
1 to 9 acres	1,656	2,943	7,708	9,954	1,711	2,061	514	480
10 to 49 acres	5,664	5,522	149,724	144,197	42,094	50,581	7,277	8,917
50 to 69 acres	1,483	1,332	86,124	77,387	24,864	28,017	6,029	7,726
70 to 99 acres	2,732	2,849	221,213	230,027	84,249	110,775	24,436	29,221
100 to 139 acres	2,247	2,277	262,433	265,410	94,769	122,089	25,059	33,760
140 to 179 acres	3,718	4,309	587,459	680,035	261,269	354,375	91,828	115,046
180 to 219 acres	1,647	1,812	326,043	357,889	156,978	188,649	52,269	54,941
220 to 259 acres	1,742	2,156	414,649	513,416	210,263	294,271	71,330	94,355
260 to 499 acres	7,921	9,351	2,931,251	3,461,281	1,646,556	2,054,328	618,677	737,889
500 to 999 acres	9,049	10,631	6,443,140	7,558,770	3,959,611	4,837,625	1,726,452	2,046,878
1,000 to 1,999 acres	6,632	6,777	9,090,967	9,240,706	5,238,535	4,961,349	2,487,211	2,128,123
2,000 to 4,999 acres	3,497	(NA)	10,317,523	(NA)	3,910,764	(NA)	1,857,410	(NA)
5,000 acres or more	1,367	1,228	15,064,882	13,348,830	1,704,961	1,480,491	656,678	427,032
Farms with harvested cropland	37,143	43,198	41,361,667	42,310,371	17,336,624	17,897,591	7,597,457	7,050,351
Farms by size:								
1 to 9 acres	478	577	2,373	2,963	1,711	2,061	429	415
10 to 49 acres	2,496	2,915	67,867	79,370	42,094	50,581	6,158	8,512
50 to 69 acres	678	746	39,457	43,475	24,864	28,017	5,189	7,258
70 to 99 acres	1,553	1,998	126,021	160,662	84,249	110,775	23,139	28,347
100 to 139 acres	1,250	1,519	146,537	177,724	94,769	122,089	23,157	32,763
140 to 179 acres	2,486	3,330	393,152	525,656	261,269	354,375	89,636	113,444
180 to 219 acres	1,204	1,423	238,318	281,157	156,978	188,649	50,686	53,849
220 to 259 acres	1,362	1,809	323,816	430,930	210,263	294,271	70,649	93,735
260 to 499 acres	6,676	8,223	2,490,034	3,063,182	1,646,556	2,054,328	614,082	733,663
500 to 999 acres	8,230	9,970	5,875,385	7,107,862	3,959,611	4,837,625	1,719,752	2,043,500
1,000 to 1,999 acres	6,260	6,434	8,591,181	8,768,814	5,238,535	4,961,349	2,484,820	2,127,048
2,000 to 4,999 acres	3,242	(NA)	9,532,465	(NA)	3,910,764	(NA)	1,855,957	(NA)
5,000 acres or more	1,228	1,131	13,535,061	12,403,829	1,704,961	1,480,491	653,803	426,872
Farms with irrigated land	17,970	19,297	24,809,923	23,061,727	11,541,865	10,929,436	7,625,170	7,065,556
Farms by size:								
1 to 9 acres	210	184	826	753	490	440	514	480
10 to 49 acres	462	472	12,473	13,064	6,965	9,043	7,277	8,917
50 to 69 acres	157	190	9,243	11,023	5,933	8,277	6,029	7,726
70 to 99 acres	422	504	34,165	40,385	26,002	31,445	24,436	29,221
100 to 139 acres	333	417	38,865	49,106	28,067	37,963	25,059	33,760
140 to 179 acres	848	1,053	134,231	166,062	105,618	131,483	91,828	115,046
180 to 219 acres	442	467	87,682	92,538	65,782	71,600	52,269	54,941
220 to 259 acres	507	666	120,526	159,091	89,424	124,120	71,330	94,355
260 to 499 acres	2,986	3,476	1,130,739	1,316,082	844,180	1,000,265	618,677	737,889
500 to 999 acres	4,652	5,559	3,361,799	4,008,970	2,503,897	3,004,631	1,726,452	2,046,878
1,000 to 1,999 acres	4,049	3,879	5,582,793	5,275,625	3,757,465	3,336,354	2,487,211	2,128,123
2,000 to 4,999 acres	2,150	(NA)	6,316,886	(NA)	2,930,178	(NA)	1,857,410	(NA)
5,000 acres or more	752	587	7,979,695	6,491,641	1,177,864	857,946	656,678	427,032

Table 10. Irrigation: 2002 and 1997

[For meaning of abbreviations and symbols, see introductory text]

Farms with irrigation		2002	1997	Farms with irrigation		2002	1997
Farms	number	17,970	19,297	Irrigated land - Con.			
Proportion of farms	percent	36.4	35.4	Acres irrigated - Con.			
Irrigated land	acres	7,625,170	7,065,556	1,000 acres or more	farms	1,811	1,215
Average per farm	acres	424	366		acres	2,866,614	1,893,900
Acres irrigated:				1,000 to 1,999 acres	farms	1,499	(NA)
1 to 9 acres	farms	520	447	2,000 acres or more	farms	1,963,609	(NA)
	acres	1,723	1,624		acres	312	(NA)
10 to 49 acres	farms	1,308	1,468		acres	903,005	(NA)
	acres	38,175	43,920	Irrigated land use:			
50 to 99 acres	farms	1,940	2,286	Harvested cropland	farms	17,613	19,032
	acres	139,707	164,837		acres	7,506,900	6,955,031
100 to 199 acres	farms	3,765	4,281	Pastureland and other land	farms	1,191	987
	acres	522,544	598,357		acres	118,270	110,525
200 to 499 acres	farms	5,201	6,075	Land in irrigated farms	acres	24,809,923	23,061,727
	acres	1,669,353	1,960,880	Cropland	acres	13,742,816	12,822,725
500 to 999 acres	farms	3,425	3,525	Harvested cropland	acres	11,541,865	10,929,436
	acres	2,387,054	2,402,038				

Table 11. Selected Characteristics of Irrigated and Nonirrigated Farms: 2002 and 1997

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	All farms		Irrigated farms				Nonirrigated farms	
			Any land irrigated		All harvested cropland irrigated			
	2002	1997	2002	1997	2002	1997	2002	1997
Farms	49,355	54,539	17,970	19,297	4,581	5,182	31,385	35,242
Land in farms	45,903,116	45,853,656	24,809,923	23,061,727	4,691,331	4,146,312	21,093,193	22,791,929
Estimated market value of land and buildings ¹								
Average per farm	723,863	550,705	1,200,079	904,349	878,546	667,180	455,359	355,625
Average per acre	776	658	862	757	848	839	676	556
Irrigated land	7,625,170	7,065,556	7,625,170	7,065,556	1,989,203	1,908,436	(X)	(X)
Land in farms according to use:								
Total cropland	43,722	47,452	17,886	19,250	4,581	5,182	25,836	28,202
Harvested cropland	22,520,874	22,633,381	13,742,816	12,822,725	2,331,793	2,179,042	8,778,058	9,810,656
Pastureland, excluding woodland pastured	37,143	43,198	17,667	19,095	4,581	5,182	19,476	24,103
Land enrolled in Conservation Reserve or Wetlands Reserve Programs	17,336,624	17,897,591	11,541,865	10,929,436	1,956,140	1,865,293	5,794,759	6,968,155
Rented or leased land in farms	30,184	34,310	10,449	11,547	2,086	2,412	19,735	22,763
Owned and rented land in farms:	23,822,278	23,503,412	11,234,881	10,430,413	2,414,809	2,025,988	12,587,397	13,072,999
Owned land in farms	10,403	10,016	2,389	2,639	337	437	8,014	7,377
Rented or leased land in farms	1,166,443	1,276,757	250,973	325,294	48,611	55,126	915,470	951,463
Market value of agricultural products sold (see text)								
Average per farm	9,703,657	9,937,248	6,386,593	6,087,415	1,641,457	1,577,189	3,317,064	3,849,834
Average per acre	196,609	182,204	355,403	315,459	358,318	304,393	105,689	109,240
Crops, including nursery and greenhouse crops	31,493	38,418	16,591	18,349	4,171	4,852	14,902	20,069
Livestock, poultry, and their products	3,388,265	3,881,119	2,759,448	2,863,174	634,272	630,215	628,817	1,017,944
Total farm production expenses ¹	28,809	34,426	9,770	11,352	1,901	2,408	17,039	23,074
Average per farm	6,315,392	6,056,130	3,627,145	3,224,241	1,007,185	946,975	2,688,247	2,831,889
Fertilizer, lime, and soil conditioners ²	32,982	36,880	16,712	18,608	4,158	4,661	16,270	18,272
Chemicals	465,636	447,687	358,111	341,065	75,848	71,117	107,524	106,622
Seeds, plants, vines, and trees	29,632	35,308	14,096	16,300	3,473	4,045	15,536	19,008
Livestock and poultry purchased	281,683	283,244	202,857	196,179	40,313	36,619	78,826	87,065
Feed purchased	30,944	37,060	15,631	18,398	3,878	4,532	15,313	18,662
Gasoline, fuels, and oils	370,108	299,736	280,117	220,011	58,101	45,486	89,991	79,725
Utilities (see text)	16,074	20,544	6,273	7,449	1,205	1,396	9,801	13,095
Supplies, repairs, and maintenance	3,211,783	2,418,527	1,989,371	1,396,684	612,805	453,025	1,222,413	1,021,843
Contract labor	26,376	29,350	9,001	10,246	1,795	2,110	17,375	19,104
Customwork and custom hauling	1,490,523	1,422,635	739,541	672,633	215,630	208,005	750,982	750,002
Cash rent for land, buildings, and grazing fees ³	46,325	50,659	17,722	19,126	4,584	4,940	28,603	31,533
Rent and lease expenses for machinery, equipment, and farm share of vehicles	331,458	328,657	241,882	217,623	52,316	49,330	89,575	111,033
Interest expense	36,103	(NA)	16,197	(NA)	3,960	(NA)	19,906	(NA)
Property taxes	173,402	(NA)	124,277	(NA)	32,385	(NA)	49,125	(NA)
All other production expenses (see text)	44,184	46,187	17,339	18,102	4,478	4,432	26,845	28,085
Commodity Credit Corporation loans (see text)	465,069	397,140	300,254	243,127	68,705	54,235	164,815	154,014
Government payments received	17,489	22,246	9,382	10,984	2,195	2,391	8,107	11,262
Income from farm-related sources (see text) ⁴	371,650	306,254	260,731	199,996	66,986	52,319	110,499	106,257
Estimated market value of all machinery and equipment ¹	5,016	6,287	2,644	3,309	892	804	2,372	2,978
Livestock inventory:	15,996	(NA)	7,219	15,339	5,277	3,979	8,298	6,035
Cattle and calves	105,236	(NA)	69,019	(NA)	19,718	(NA)	36,216	(NA)
Hogs and pigs	20,243	19,256	9,963	9,735	1,778	1,785	10,280	9,521
Sheep and lambs	471,124	338,815	341,280	240,616	59,551	43,244	129,844	98,199
Commodity Credit Corporation loans (see text)	7,199	5,983	4,606	3,948	938	989	2,593	2,035
Government payments received	258,686	221,623	220,009	185,075	42,035	42,338	38,677	36,548
Income from farm-related sources (see text) ⁴	32,007	37,059	13,565	16,100	2,965	3,853	18,442	20,959
Estimated market value of all machinery and equipment ¹	347,517	326,937	218,776	196,650	40,418	37,542	129,241	130,287
Livestock inventory:	23,664	23,038	11,041	9,791	2,307	2,372	12,623	13,247
Cattle and calves	227,333	144,131	122,546	69,426	30,686	17,622	104,787	74,706
Hogs and pigs	48,046	54,519	17,790	19,376	4,621	5,021	30,256	35,143
Sheep and lambs	5,370,381	4,529,411	3,468,649	2,662,420	753,883	561,760	1,901,732	1,866,991
Average per farm	111,776	83,079	194,977	137,408	163,143	111,882	62,855	53,126
Livestock inventory:								
Cattle and calves	25,083	30,214	9,256	10,169	1,814	2,073	15,827	20,045
Number	6,202,947	6,730,153	3,595,755	3,614,227	900,872	940,325	2,607,192	3,115,926
Milk cows	866	1,385	307	461	49	79	559	924
Hogs and pigs	66,926	68,872	31,873	30,491	3,300	4,933	35,053	38,381
Sheep and lambs	3,075	6,312	1,161	2,225	164	345	1,914	4,087
Number	2,933,620	3,474,386	971,852	1,154,686	150,150	189,042	1,961,768	2,319,700
Average per farm	1,435	1,717	392	424	101	119	1,043	1,293
Number	97,373	102,638	38,863	36,769	10,133	15,253	58,510	65,869

¹ Data are based on a sample of farms.
² 1997 data exclude lime and manure.
³ 1997 data exclude grazing fees.
⁴ 1997 data are based on a sample of farms.