KANSAS FARM MANAGEMENT & MARKETING HANDBOOK

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Computation of Deferred Tax Liability—An Example

Department of Agricultural Economics

K-STATE Kansas State University

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

Larry N. Langemeier
Extension Agricultural Economist
Farm Management Studies

An income tax liability arises from differences between (a) balance sheet values of certain assets and liabilities and (b) the tax basis of these same assets and liabilities. Farm financial statements, especially the balance sheet, should be prepared with recognition given to this income tax liability, or deferred taxes.

Deferred taxes reconcile the tax basis of a balance sheet with the basis currently being used for valuing assets and recording liabilities. That is, if all assets could be liquidated for exactly the amount shown on the balance sheet and if all liabilities could be satisfied by payment of exactly the amount shown on the balance sheet, then what taxable income would result and what would be the tax liability?

The asset and liability values outlined in the example balance sheet (Table 1) are used to show the derivation of deferred taxes, or income tax liability, utilizing the following three step procedure.[1]

Step 1. Computation of current portion of deferred taxes. (See Table 2 for example computations). The total amount by which the balance sheet value of current assets exceeds their taxable basis is calculated. Deferred income, such as crop insurance proceeds, reported for financial statements but not recorded for tax purposes and for which no asset value exists on the balance sheet needs to be included. Subtract from total deferred income calculated the amount of current liabilities that result in deductions for tax purposes such as accounts payable and accrued interest. The current portion of deferred taxes is then computed by multiplying an estimated total tax rate, which reflects federal, state, local, and social security taxing authorities, times the net deferred income.

Step 2. Computation of noncurrent portion of deferred taxes related to base value treatment of raised breeding livestock. (See Table 3 for example computations). The difference between the base value and the tax basis for raised breeding livestock is calculated. The tax basis will be zero for raised breeding livestock which have not been capitalized and depreciated for tax purposes. Multiply the difference times the estimated total tax rate. Social security tax should be considered only on that portion of the difference subject to self-employment taxes.

Step 3. Computation of noncurrent portion of deferred taxes related to differences between market values and tax basis or base value of noncurrent assets. (See Table 4 for example computations). Calculate the difference between the balance sheet market values of all noncurrent assets and their tax basis (base value for raised breeding livestock). For raised breeding livestock, the base value is subtracted form market value to determine the value subject to capital gains tax. In most cases, noncurrent assets will be limited to breeding livestock, machinery and equipment, real estate, and improvements. The noncurrent portion of deferred taxes is then computed by multiplying the calculated deferred taxable income times the estimated total tax rate for capital asset sales.

The current and noncurrent portion of deferred taxes are recorded on the balance sheet as liabilities. If the total deferred income value, or taxable income, computed in steps 1 through 3 was negative, then a deferred tax refund would result with the refund recorded as an asset on the balance sheet. Table 5 shows an example of the reconciliation of the change in deferred taxes, while Table 6 presents the derivation of valuation equity for the balance sheet. Table 7 presents a statement of owner equity.

For more information on the computation of deferred taxes, see the publication *Financial Guidelines for Agricultural Producers II*, revised December 1997.

[1]*The federal and state income tax rates outlined in the following tables were used as an example to demonstrate the methodology of computing deferred taxes. These income tax rates will vary for different farm businesses.*

Table 1. *Balance Sheet Statement; Example Farm*

John P. Recorder
Balance Sheet (Farm Business Only)

	BEG. INVENTORY (1/1/98)	END. INVENTORY (12/31/98)
ASSETS:		
Cash on Hand	$ 0	$ 0
Cash on Deposit in Bank	31,000	31,140
Marketable Securities	0	0
Market Livestock	184,050	232,650
Crops Held for Sale and Feed	37,500	17,980
Fertilizer and Supplies on Hand	11,100	7,625
Accounts Receivable	9,500	10,000
Prepaid Expenses	0	0
Cash Investment in Growing Crops	8,250	9,000
Other Current Assets (List)	1,400	645
TOTAL CURRENT ASSETS	$ 282,800	$ 309,040
Breeding Livestock (Market)	25,200	25,500
Auto-Trucks (Market)	15,000	13,520
Motorized Equipment (Market)	73,000	70,700
Machinery and Equipment (Market)	39,800	37,605
Investments in Capital Leases	0	0
Investments in Other Entities	6,000	6,000
Investments in Cooperatives	18,000	18,000
Real Estate (Market)	189,300	198,750
Buildings-Improvements (Market)	85,000	104,950
Other Assets (List)		
TOTAL NONCURRENT ASSETS	$ 451,300	$ 475,025
TOTAL ASSETS	$ 734,100	$ 784,065
LIABILITIES:		
Accounts Payable	0	0
Notes Due Within One Year	125,100	118,975
Current Portion of Term Debt Due Within 12 Months	9,000	11,125
Accrued Interest	5,000	8,500
Income Taxes Payable	3,200	3,200
Current Portion-Deferred Taxes	58,755	55,910
Other Accrued Expenses	8,000	4,000
Other Current Liabilities (List)		
TOTAL CURRENT LIABILITIES	$ 209,055	$ 201,710
Noncurrent Portion—Notes Payable	12,900	20,790
Noncurrent Portion—Real Estate Debt	63,500	83,025
Noncurrent Portion—Deferred Taxes	68,160	71,275
Other Noncurrent Liabilities		
TOTAL NONCURRENT LIABILITIES	$ 144,560	$ 175,090
TOTAL LIABILITIES	$ 353,615	$ 376,800
Retained Capital	259,295	280,160
Valuation Equity	121,190	127,105
OWNER EQUITY	$ 380,485	$ 407,265
TOTAL LIABILITIES AND OWNER EQUITY	$ 734,100	$ 784,065

Table 2. Computation of Current Portion of Deferred Taxes; Example Farm

Item	Market Value	Tax Basis	Difference
		January 1, 1998	
Market Livestock	$184,050	$ 93,270	$ 90,780
Crops-Feed Held For Sale	37,500	0	37,500
Fertilizer-Products	11,100	0	11,100
Accounts Receivable	9,500	0	9,500
Prepaid Expenses	0	0	0
Investment Growing Crops	8,250	0	8,250
Other Current Assets	1,400	0	1,400
Excess of Carrying Value over Tax Basis			$158,530
Other Deferred Income			0
Total Deferred Income			$158,530
Accounts Payable			0
Accrued Interest			5,000
Income Taxes Payable (State)			0
Other Accrued Expenses			8,000
Total Deferred Expenses			$ 13,000
Net Deferred Income Subject to Income Tax			$145,530
Estimated Federal-State Income Tax*			$ 46,425
Estimated Self-Employment Tax**			$ 12,330
(A) Total Deferred Tax Liability Related to Current Assets and Liabilities			$ 58,755
	December 31, 1998		
Market Livestock	$232,605	$128,650	$184,600
Crops-Feed Held for Sale	17,980	0	17,980
Fertilizer-Products	7,625	0	7,625
Accounts Receivable	10,000	0	10,000
Prepaid Expenses	0	0	0
Investment Growing Crops	9,000	0	9,000
Other Current Assets	645	0	645
Excess of Carrying Value over Tax Basis			$149,850
Other Deferred Income			0
Total Deferred Income			$149,850
Accounts Payable			0
Accrued Interest			8,500
Income Taxes Payable (State)			0
Other Accrued Expenses			4,000
Total Deferred Expenses			$ 12,500
Net Deferred Income Subject to Income Tax			$137,350
Estimated Federal-State Income Tax*			$ 43,815
Estimated Self-Employment Tax**			$ 12,095
(A) Total Deferred Tax Liability Related to Current Assets and Liabilities			$ 55,910

* Rate of 31.9% times net deferred income. **Rate of 12.4% times $65,400; and 2.9% times net deferred income.

Table 3. Computation of Noncurrent Portion of Deferred Taxes Related to Base Value Treatment of Raised Breeding Livestock

Item	Base Value	Tax Basis	Difference
		January 1, 1998	
Raised Breeding Livestock	$ 15,800	$ 0	$ 15,800
Net Deferred Income Subject to Income Tax			$ 15,800
Estimated Federal-State Income Tax*			$ 5,300
Estimated Self-Employment Tax**			$ 425
(B) Total Deferred Tax Liability Related to Based Value Treatment of Raised Breeding Livestock			$ 5,725
		December 31, 1998	
Raised Breeding Livestock	$ 16,000	$ 0	$ 16,000
Net Deferred Income Subject to Income Tax			$ 16,000
Estimated Federal-State Income Tax*			$ 5,365
Estimated Self-Employment Tax**			$ 430
(B) Total Deferred Tax Liability Related to Based Value Treatment of Raised Breeding Livestock			$ 5,795

* Rate of 33.54% times net deferred income.
**Rate of 15.3% times portion of net deferred income subject to self-employment tax.

Table 4. Computation of Noncurrent Portion of Deferred Taxes Related to Valuation Equity

Item	Market Value	Tax Basis	Difference
		January 1, 1998	
Raised Breeding Livestock	$ 23,700	$ 15,800	$ 7,900
Purchased Breeding Livestock	1,500	750	750
Machinery-Equipment	127,800	51,065	76,735
Real Estate-Improvements	274,300	176,060	98,240
Deferred Taxable Income Related to Excess of Market Values over Base Values or Tax Basis of Capital Assets Other Than Raised Breeding Livestock			$183,625
(C) Total Deferred Tax Liability Related to Valuation Equity*			$ 62,435
Valuation Equity			$121,190
(B) Total Deferred Tax Liability Related to Based Value Treatment of Raised Breeding Livestock			$ 5,725
(C) Total Deferred Tax Liability Related to Valuation Equity			$ 62,435
(D) Total Noncurrent Portion of Deferred Taxes			$ 68,160
		December 31, 1998	
Raised Breeding Livestock	$ 24,000	$ 16,000	$ 8,000
Purchased Breeding Livestock	1,500	1,335	165
Machinery-Equipment	121,825	45,095	76,730
Real Estate-Improvements	303,700	196,010	107,690
Deferred Taxable Income Related to Excess of Market Values over Base Values or Tax Basis of Capital Assets Other Than Raised Breeding Livestock			$192,585
(C) Total Deferred Tax Liability Related to Valuation Equity*			$ 65,480
Valuation Equity			$127,105
(B) Total Deferred Tax Liability Related to Based Value Treatment of Raised Breeding Livestock			$ 5,795
(C) Total Deferred Tax Liability Related to Valuation Equity			$ 65,480
(D) Total Noncurrent Portion of Deferred Taxes			$ 71,275

* Rate of 34.0% times deferred taxable income.

Table 5. Reconciliation of Total Change in Deferred Taxes; Example Farm

Item	December 31, 1998	January 1, 1998	Change
Current Portion of Deferred Tax Liability (A)	$ 55,910	$ 58,755	($ 2,845)
Noncurrent Portion of Deferred Tax Liability Related to Base Value Treatment of Raised Breeding Livestock (B)	5,795	5,725	70
Total Increase (Decrease) in Deferred Tax Liability Used in Calculating Total Income Tax Expense			(2,775)
Noncurrent Portion of Deferred Tax Liability Related to Valuation Equity (C)	65,480	62,435	3,045
Total Increase (Decrease) in Deferred Tax Liability			$ 270

Table 6. Computation of Valuation Equity; Example Farm

Item	Market Value	Tax Basis	Difference
		January 1, 1998	
Raised Breeding Livestock	$ 23,700	$ 15,800	$ 7,900
Purchased Breeding Livestock	1,500	750	750
Machinery-Equipment	127,800	51,065	76,735
Real Estate-Improvements	274,300	176,060	98,240
Noncurrent Portion—Deferred Taxes	(62,435)		(62,435)
Total Valuation Equity			$121,190
		December 31, 1998	
Raised Breeding Livestock	$ 24,000	$ 16,000	$ 8,000
Purchased Breeding Livestock	1,500	1,335	165
Machinery-Equipment	121,825	45,095	76,730
Real Estate-Improvements	303,700	196,010	107,690
Noncurrent Portion—Deferred Taxes	(65,480)		(65,480)
Total Valuation Equity			$127,105

Table 7. Statement of Owner Equity, Example Farm

Owner Equity, Beginning of Period			$380,485
Net Income/Loss		$ 47,100	
Income Taxes	$ 4,035		
Withdrawals for Unpaid Labor and Management	$ 28,360		
Nonfarm Income Contributed to Farm Business	$ 6,160		
Owner Withdrawals, Net		$ 26,235	
Additions and Reductions in Retained Capital			$ 20,865
Increase in Excess of Market Value Over Cost/Tax Basis of Farm Capital Assets		$ 8,960	
Less Increase in Noncurrent Portion—Deferred Taxes		$ 3,045	
Total Change in Valuation Equity			$ 5,915
Owner Equity, End of Period			$407,265

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