

2011

North Dakota

Farm Record Analysis

Closeout

Procedures

December 29, 2011

Introduction

This manual was developed to assist in the standardization of data collection and entry for Farm Business Management Annual Analysis Reporting. Consistency in the data entry is the key to creating a useable set of benchmark for producers. [Blue text indicates current year additions/revisions.](#)

Acknowledgements

Farm Business Management Instructors at Northland Community and Technical College developed this manual during the Fall of 1996. Updated annually by the Deans of Management, Minnesota State Colleges and Universities and the Center for Farm Financial Management, University of Minnesota.

To insure uniformity in all data in FINBIN, the North Dakota Farm Management Education Program adopted the Minnesota Closeout Manual with minor revisions to be used by all programs in North Dakota. Revisions through the 2007 version were made by Mark Holkup and Andy Swenson and reviewed by all instructors. Since 2008 Rueben Mayer and Andy Swenson, with input from all of the North Dakota instructors, have compiled the revisions and incorporated them into this manual. Use of this manual for the North Dakota closeout procedures has been approved by the North Dakota Farm and Ranch Business Management Education Association.

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I.

Timelines

I. North Dakota TIMELINES

TASK	RESPONSIBILITY	DATE
Run individual farm analysis	Local instructors	January-February-March
Send DBC files to be included in regional report to NDSU	Local instructors	March 5 RRV Region 1 March 8 Region 2 March 19 Region 3 March 19 Region 4
Send review copy of local report to instructor	NDSU	Within 7 days of receiving data
Send confirmation of local data received to regional coordinators	NDSU	Within 7 days of receiving data
Send corrections to NDSU on disk or by email attachments	Local instructors	Within 3 days of receiving review copy
Send regional report to coordinators	NDSU	
Review and print regional reports	Regional coordinators	
Send final local data to NDSU	Local instructors	April 1
Send final local reports to instructors	NDSU	Within 7 days of being notified all data is in
Send state report to state office	NDSU	About May 1

Send database to: andrew.swenson@ndsu.edu (send files as attachments)

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 NDSU Dept. 7110 Fax: 701-231-1059
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II.

2010 Overview

What's New?

- A special sort labeled “Cow-calf w/backgrounding” was added for those situations where you have to run the Beef Cow-Calf and Beef Backgrounding enterprises as a single enterprise. If this situation arises be sure to select the special sort on the Beef Cow-Calf Enterprise page. (This feature should only be used if the Cow-Calf and Backgrounding enterprises cannot be split for a particular farm.)

Points of emphasis for 2010

- The allocation factors for Beef Backgrounding were left unchanged from previous years, however, instructors are encouraged to check the amounts actually being allocated to the enterprise and make changes to the individual farmer's allocation if needed.

State Database Thresholds

Whole Farm Analysis

- Cash check discrepancy should be < 2% of gross income and < \$10,000.
- Liabilities check discrepancy should be < \$300.
- RRV farms are to include deferred liabilities. If a farm has negative deferred liabilities, enter zero and include an explanatory note in FINAN. The remaining North Dakota farms will not include deferred liabilities.
- All farms must include both cost and market balance sheets.
- Total machinery and building depreciation should be <= 0. See Capital Sales and Purchases for handling gain on the sale of capital assets.
- All farms must include estimated labor hours. Even though FINPACK says this is optional, it is not optional for us.
- Personal property taxes should not be entered for North Dakota or Minnesota farms.

Crop Enterprises

- Cover crops for hay establishment (oats) should not be coded with a Double Crop type.
- Irrigation expense should not be allocated to non-irrigated crops.
- For hay crops, seed expense should only be entered on hay establishment enterprises and not on normal production enterprises unless there were re-establishment costs. See Crop Type on page 33.
- Rent expense should be > 0 on cash rented crops. If legitimate, enter as share rental with 100% share or delete the enterprise.
- Real estate taxes should be > 0 on owned land.
- Seed expense should be > 0 on corn, soybeans and other common commodity crops.
- Seed expense should = 0 for canning crops such as peas and sweet corn.
- Drying should = 0 on forage crops. Enter preservatives as Misc. Crop Expense.
- Expenses should be >= 0. Negative overhead expenses are caused by over-allocating direct expenses for labor, leases, utilities and custom hire.
- Direct and CCP payments must be allocated to the cropping enterprises. For producers who did not participate, include a note in the FINAN.
- Direct and CCP payments must not be allocated to ineligible vegetables or edible beans.

Livestock Enterprises

- Beef calves from a cow-calf enterprise should be sold or transferred at or close to weaning weight.
- Carefully review all items in the Other Information results, such as Calving Percentage, Feed Conversion, etc.
- Enter feed quantities in the proper unit, e.g., do not enter Protein in pounds.

Procedures

- Download the program setup for your college (even if you did this last year). Download instructions will be sent separately. (instructions on page 47)

III.

*Balance
Sheet*

Entering Data on the FINPACK Balance Sheet

The screenshot shows a dialog box titled "Asset Valuation Method" with three radio button options: "Market value", "Cost value", and "Both". The "Both" option is selected, indicated by a green dot next to it.

Valuation Method: Select “Both” during entry; you can still choose to print only the Market Value or Cost Value by selecting these later when you print.

ASSETS:

Current Farm Assets:

Cash and Checking Balance: Includes all farm accounts, savings and checking, CD’s (Certificates of Deposit), money market accounts, etc. Use **Detail** to make a detailed list.

The screenshot shows a window titled "Detail: Prepaid expenses and supplies" with a table of expenses. The table has five columns: Description, Expense Category (Optional), Quantity, Value Per Unit, and Value. The data rows are:

Description	Expense Category (Optional)	Quantity	Value Per Unit	Value
Prepaid fertilizer	Fertilizer			3,590
Corn seed	Seed			4,057

Prepaid Expense and Supplies: Include paid fuel, fertilizer and chemical in tanks, fall applied fertilizer and/or chemicals, prepaid accounts at elevators, co-ops, companies, etc. Use **Detail** to select the expense category to help identify the total expense incurred in the FINAN enterprise analysis.

Growing Crops: Example: Winter Wheat (cost of inputs). Use **Detail** to select the expense category.

Accounts Receivable: Examples: Insurance payments, money owed from others, etc; estimated Disaster payments to be received

next year, LDP'S where paperwork is done but the check is not received (corn silage). The beginning balance sheet should include the gross value of the previous December milk which was received in January. The ending balance sheet should include the December check which will be received in the following the January. Deferred crop sales may be included in Accounts Receivable or as crop inventory. Use **Detail** in the entry box to enter a detailed list.

Loan repayment rate locks: If the producer has a marketing loan repayment rate lock in place as of January 1 and the market price is higher than the repayment rate, show the equity gain as an account receivable.

Hedging Accounts: Enter the amount of equity that could be withdrawn if the position were settled on the statement date. Some brokerage statements list this as "**Net Liquidity.**"

Other Current Assets: Enter any item not fitting the categories listed in the Current Assets section of the Balance Sheet.

Crops: Always enter the Quantity, Value/Unit and Value. If the market price is below the loan rate and an LDP has not been claimed, value the crop at local loan rate. If the price has been locked in, use that price less estimated storage costs until delivery.

Crops Under Government Loan: Enter the name of the crop, the Quantity Loan Rate, the FSA Interest Rate, the month the loan was taken, the year, the Value/Unit, Market Value, and whether the crop is to be treated as a Loan (Full Market Value) or Income (Net of Loan).

Market Livestock: Include Feeder Animals intended for eventual sale. Youngstock intended to eventually enter the breeding herd should be included in Breeding Livestock.

Intermediate Farm Assets:

Breeding Livestock: Include all breeding females and males. To-be-culled breeding animals remain as intermediate livestock until sold. Cost value for raised livestock should be set initially as the estimated cost of production (base value) and should remain the same throughout the life

of the animal. Purchased animals should be separated from raised if they represent over 10% of the herd with cost value of the purchase cost less depreciation down to the base value.

Farm Machinery and Equipment:

Enter both the Market Value and the Cost Value. For cost valuation, use an economic depreciation method that reflects the estimated actual useful life of the asset or group of assets. An easy calculation is to subtract 10 to 15% of the remaining cost value each year. Start new machinery at full purchase cost for both cost and market value and depreciate depending on use during the year. For new students, establish the cost value by creating a detailed list and estimating the purchase cost less economic depreciation on each item. If this is unworkable, begin at market and apply economic depreciation in future years. See Entering Capital Leases on the Balance Sheet for leased assets. Use the **Detail** to enter a detailed list. Use the Adjust Values (%) feature to do a percentage depreciation on the detail list (see below).

Depreciation percent... Adjust market values
 Adjust cost values

10.00

Adjust?	Description	Cost Value	Adjusted Cost Value	Market Value	Adjusted Market Value
<input checked="" type="checkbox"/>	Flatbed trailer	782	704	1,116	1,116
<input checked="" type="checkbox"/>	Grinder	425	382	837	837
<input checked="" type="checkbox"/>	IH 966	4,251	3,826	7,440	7,440
<input checked="" type="checkbox"/>	Feed wagon	612	551	1,023	1,023
<input checked="" type="checkbox"/>	Feeders	147	132	279	279
<input checked="" type="checkbox"/>	Bin sweep	368	331	465	465
<input checked="" type="checkbox"/>	Feed wagon #2	3,883	3,494	4,697	4,697
<input checked="" type="checkbox"/>	Scale	441	397	679	679
<input checked="" type="checkbox"/>	IH 1086	9,311	8,379	11,160	11,160
<input checked="" type="checkbox"/>	Troughs	234	211	419	419
<input checked="" type="checkbox"/>	Feed truck	3,596	3,237	4,441	4,441
<input checked="" type="checkbox"/>	Feed bins	367	330	581	581
<input checked="" type="checkbox"/>	Auger	307	276	465	465
<input checked="" type="checkbox"/>	Combine	23,373	21,036	27,900	27,900
<input checked="" type="checkbox"/>	Weed eater	210	189	335	335
<input checked="" type="checkbox"/>	Livestock trailer	1,148	1,033	1,395	1,395
<input checked="" type="checkbox"/>	Foam marker	401	360	558	558
<input checked="" type="checkbox"/>	Tire chopper	304	275	465	465
Total		86,514	77,863	105,109	105,109

Suggested Depreciation Rates	
Livestock equipment	15 - 20 %
Crop machinery	7- 15 %
Buildings and bins	5 %
Augers and movable equipment	10 %
Vehicles	10 – 20 %
Office Equipment	30 %

Titled Vehicles: If desired, separate titled vehicles from farm machinery.

Other Intermediate Assets: Example: Cooperative Stock, (this is not to be confused with co-op patronage equities which are long term assets), Beet Stock, Farm Credit Services Stock, Wheat Growers Stock. Enter the retained value for each cooperative separately. For the market column, value stock at market value with recognition of changes if significant changes in valuation have occurred since the beginning of the year. Also include any positive balances from livestock ledger contracts. Use **Detail** to enter a detailed list.

Suggested Depreciation Percentages Based on Asset Useful Life

Years	Depreciation %	Years	Depreciation %
2	50	9	11
3	33	10	10
4	25	11	9
5	20	12	8
6	17	15	7
7	14	20	5
8	12	25	4

Long Term Farm Assets:

Farm Land: Use **Detail** to enter the Acres, Value/Acre, Cost Value and Market Value. Do not change the Market Value unless a significant change occurs.

Farm Buildings: Enter both Cost Value and Market Value. Use a Management Depreciation Method which depreciates the original cost over the life of the asset for the cost

value. An easy calculation is to subtract 5 to 7% of the remaining cost value each year. Enter new buildings at original purchase cost for both cost and market value and depreciate based on use during the year. See Entering Capital Leases on the Balance Sheet for leased assets. Use the **Detail** to enter a detailed list.

Note: For the same farm, you can separate land and buildings on the “Cost” Balance Sheet, yet lump them together on the “Market” Balance Sheet.

Other Long Term Farm Assets:

Enter any long term asset not already categorized above, both Cost and Market Value. Example: Co-op equities.

Personal Assets:

These should be detailed as well. Enter the house in this category. The loan should follow the purpose of the loan not necessarily the collateral. A home improvement would be a personal loan. A loan for farming with the house as collateral would be a farm loan.

LIABILITIES:

Accounts Payable and Other Accrued Expense:

Usually includes accounts payable, charge account, such as feed, fertilizer owed to local businesses, real estate taxes owed but not paid. Include any government payments received before the beginning balance sheet date but belonging to next year’s crop. Do not include credit card or FarmPlan balances if expenses are included in outflows—include in current notes instead. Use detail to list each account and the Expense Category.

Description	Expense Category (Optional)	Amount
Sweet Feed Company	Purchased feed	2,032
Farmer's Coop - fuel	Fuel & oil	
Zumchester Repair - parts	Repairs	0

Current Loans:	List loans due in less than 1 year. If expenses financed by credit cards or FarmPlan are included as cash outflows in FINAN, list the balance as a Current Loan here. If not, include them in Accounts Payable.
Intermediate:	List loans owed on equipment and livestock; usually ten years or less. P&I payment is required for calculation of Term Debt Coverage. Principal due is amount due in the next 12-month period. (FSA setaside payments should be listed as separate loans without accrued interest or payments, 0% interest.)
Capital Leases	<p>If this is an operating lease (the operator's intent is not to eventually own the asset), do not enter the asset or liability on the Balance Sheet.</p> <p>If this is a capital lease, which includes a "buy-out" provision:</p> <ol style="list-style-type: none"> 1) Report the asset value in the appropriate asset category and depreciate on the cost balance sheet as discussed at the end of this section. 2) Report the lease as a liability with interest and a payment separated by principal and interest. 3) Use the example at the end of this section to help in the calculation of principal and interest.
Long-Term Liabilities:	List loan with an original term of longer than ten years ~ usually real estate (land or buildings). P&I payment is required for calculation of Term Debt Coverage. (FSA setaside payments should be listed as separate loans without accrued interest, or payments, 0% interest.)
Personal Liabilities:	Income and self employment taxes should be estimated and included as personal accounts payable. Be sure to enter on both the beginning and ending Balance Sheets. List credit cards as accounts payable if they are not included as cash outflows in FINAN.
Current Personal Loans:	Short term loans due 12 months or less. Include credit card balances if included in cash outflows in FINAN.
Intermediate Personal Loans:	Car loans, boats, furniture and other personal items.
Long Term Personal Loans:	Real estate, house, cabin, trailer house.

Deferred Liabilities:

Deferred liabilities are only reported for farms located in the RRV. Use the detail feature to calculate deferred liabilities on the Market Balance Sheet. Deferred Liabilities include:

	Amount
Deferred taxes on current inventories	23,428
Deferred liabilities on capital assets	59,342
Total	82,770

- 1) Taxes due on current inventories (grain, market livestock, etc.) include both income and self employment taxes. For purchased market livestock use the net gain for the calculation. Also use the net gain for CCC loans under the income election.

Detail: Deferred taxes on current inventories

Market value of current inventories		105,299
Payables and accrued expenses	(-)	3,883
Purchase cost of feeder livestock	(-)	17,745
Government crop loans already taxed	(-)	
NOL carryovers and other adjustments	(-)	
Taxable current inventory value	(=)	83,671
Estimated marginal tax rate (%)	(*)	28.00
Deferred taxes on current inventories	(=)	23,428

Close

- 2) Taxes due on the gain from capital assets (land, stock, machinery, etc.) typically includes capital gains tax calculated on the difference between market value and the tax basis value. In accordance with the Farm Financial Standards, selling costs should have already been subtracted from the market value of assets and therefore should not be included here.

- 3) FINPACK defaults the cost values from the balance sheet into the tax basis column. To be accurate, you should enter the actual tax basis for each asset category. FINPACK will automatically update the tax basis using the cost values until you change them so they do not match. After you change the tax basis, you must continue to update it from year to year.
- 4) The chart on the following pages should be used in determining the appropriate tax rate to apply to the assets.

Detail: Deferred liabilities on capital assets

	Market Value	Tax Basis	Selling Cost %	Estimated Gains
Breeding livestock	92,150	450		91,700
Machinery and equipment	105,109	20,000		85,109
Titled vehicles	10,000	9,074		926
Other intermediate assets				
Land	184,000	80,000		104,000
Buildings and improvements	124,260	93,667		30,593
Other long term assets	30,356	30,356		
Stocks and bonds				
Retirement accounts				
Personal business investment				
Personal real estate				
Other personal long term assets				
Total taxable capital gains				312,328

Estimated marginal tax rate (%)	(*)	<input type="text" value="19.00"/>
Total deferred taxes on capital assets	(=)	59,342
Total selling costs	(+)	0
Total deferred liabilities on capital assets	(=)	59,342

Close

Approximate Average Deferred Tax Rates

NORTH DAKOTA

Average Deferred Tax Rate on

Total Deferred Taxable Income	Current Deferred Taxable Income	Non-Current Deferred Taxable Income
	Federal ^a Only	Federal ^b Only
15,000	15%	0%
20,000	17%	0%
30,000	18%	0%
40,000	21%	2%
50,000	22%	3%
60,000	23%	5%
70,000	24%	6%
80,000	24%	7%
90,000	24%	8%
100,000	25%	9%
110,000	25%	10%
120,000	25%	11%
140,000	26%	12%
160,000	26%	13%
180,000	28%	14%
200,000	28%	17%
250,000	28%	17%
300,000	28%	17%
350,000	28%	17%
400,000	28%	17%
450,000	29%	17%
500,000	29%	17%
1,000,000	29%	17%
2,000,000 and over	29%	17%

a. Includes Federal Income Tax and Social Security Tax

b. Excludes Social Security Tax.

Entering Capital Leases on the Balance Sheet

The first step is to determine if the lease is a capital lease, or simply a rental arrangement. The Farm Financial Standards Council (FFSC) Guidelines, Appendix G, states,

According to GAAP, a lessee should show the lease as a capital lease if the lease is non-cancelable and meets any one of the following four interest tests:

- 1. The terms of the lease transfer ownership of the property to the lessee at the end of the lease term.*
- 2. The lease contains a bargain purchase option.*
- 3. The term of the lease is at least 75% of the estimated economic life of the leased property.*
- 4. The present value of the minimum lease payments equals or exceeds 90% of the fair market value of the leased property.*

If the lease is determined to be a capital lease, then, for financial statement purposes, the lease payments must be capitalized and amortized over the term of the lease. It must be remembered that it is the lease investment, which is being put on the balance sheet, not the asset being leased.

Treatment of capital leases is a complicated subject that is often treated incorrectly. Most farmers leasing capital assets under a capital lease probably treat a capital lease like a regular lease by deducting the entire payment as a business expense. Although simple, this is incorrect according to both GAAP and the IRS. Since our purpose is a management application, we will follow the GAAP (and FFSC) format and leave the tax implications to the tax practitioners.

Since a capital lease is actually a type of purchase agreement, many lenders prefer to see the asset, and the accompanying liability, on the balance sheet. This requires the use of a present value chart (or a business calculator) to separate the payments into an interest portion and a principal amount, and an amortization calculation to further separate the principal portion into current and term debt. This is what both GAAP and FFSC recommend.

The asset value (the value of the lease entered on the balance sheet) consists of the current year payment made in advance plus the capitalized value of the outstanding principal portion of future payments based upon the effective interest rate as determined through the use of a present value table or business calculator. This value may be amortized over the estimated life of the asset being leased, or may be amortized over the life of the lease.

The liability entered on the balance sheet is the capitalized value of the principal portion of future payments based upon the effective interest rate, as determined using a present value table or a business calculator. This liability is further divided into current and non-current portions. Accrued interest is also entered as a current liability.

Example:

An asset costing \$50,000 is purchased utilizing a five-year capital lease, based on an interest rate of 10%.

Option #1: There are five equal installments (lease payments) of \$11,990.80 each. The first payment is due upon delivery and is entirely principal. The remaining four payments consist of both principal and interest. Using a present value table, we find that the factor for the four future payments at 10% interest is 3.1699 (*see Present Value Table, page 25*). So, the calculation of the value of the asset the first year (prior to amortization/depreciation) is:

$$\text{Initial payment} + \text{capitalized value of future payments, or} \\ \$11,990.80 + (11,990.80 \times 3.1699 [n=4]) = 11,990.80 + 38,009.64 = 50,000.44$$

Other than proving the process, this calculation would not be necessary if you know the actual value being leased. However, the value being leased may differ from the asset cost if there is a buy-out or asset value remaining at the end of the lease term. It is essential that the balance sheet reflect only the value being leased (*which is not necessarily full the value of the item being leased*) and the liability against that value. This asset value would be amortized (depreciated) over the estimated life of the asset, or over the term of the lease. Using a five year term, the balance sheet value each year would be:

<u>Year</u>	<u>Amortization</u>	<u>Value</u>	
19x0	0	50,000	If, as is likely, the lease was initiated during the year (rather than on January 1), a monthly convention would be used in calculating the amortization (depreciation) schedule. For example, if the lease was initiated on April 1, the first year amortization would be \$7,500 and the sixth year would be the remaining \$2,500.
19x1	10,000	40,000	
19x2	10,000	30,000	
19x3	10,000	20,000	
19x4	10,000	10,000	
19x5	10,000	0	

On the liability side, the capitalized value of the lease liability is amortized over the remaining life of the lease. The capitalized value of the future payments, utilizing a present value table or business calculator would be:

$$\$11,990.80 \times 3.1699 [n=4] = \$38,009.64$$

This amount will be amortized over the remaining four annual payments using a standard interest-principal calculation.

<u>Year</u>	<u>Bgn Balance</u>	<u>Payment</u>	<u>Interest</u>	<u>Principal</u>	<u>End Balance</u>
19x1	38,010	11,991	3,801	8,190	29,820
19x2	29,820	11,991	2982	9,009	20,811
19x3	20,811	11,991	2081	9,910	10,901
19x4	10,901	11,991	1090	10,901	0

The 19x1 balance sheet would show the total principal liability (\$38,010) divided between a current liability of \$8,190 and a non-current liability of \$29,820. The same procedure would be followed in subsequent years. Accrued interest on the lease is also listed as a current liability. The accrued interest is calculated on the entire principal liability adjusted to reflect the months between the lease payment date and the end of the period represented by the balance sheet.

Since the asset value of the lease is actually the value of the lease, and not the value of the leased asset, any remaining end-of-lease buyout value is *not* reported as an asset on the balance sheet. Similarly, the buy-out price is not reported as a liability. These values, if the buy out is performed, will be entered at the time of that purchase, when the lease is finished.

Other Lease Options (using the same \$50,000 asset and 10% interest rate):

Option #2. There is no initial payment upon delivery. The first payment is not due until the end of the first year, and there are a total of five annual payments of \$13,189.83 each. AN@ on the present value chart, the number of outstanding payments, would be A5@. The interest rate is 10%. Compared to option #1, the higher annual payment of \$13,189.83 reflects inclusion of the first year=s interest to the lease. The proof: $\$13,189.83 \times 3.7908 [n=5] = \$50,000.01$.

Option #3. If an asset is leased/purchased with the purchaser unaware of the purchase price and/or the interest rate; use the annual payment, the number of payments, and an imputed interest rate to determine the capitalized value of the lease and the outstanding liability.

Option #4. Suppose there are unequal lease payments. The lessee makes an initial (on-delivery) payment of \$6,000, a low \$7,500 payment at the end of the first year, and three more annual payments of \$16,007.42.

- a. Add the 4 remaining payments:
 $7,500 + 16,007.42 + 16,007.42 + 16,007.42 = 55,522.26$
- b. $55,522.26$ divided by $4 = 13,880.57$ (average payment)
- c. $13,880.57$ multiplied by $3.1699 [n=4] = 44,000$ (outstanding principal)
- d. $44,000 + 6,000 = 50,000$ (total asset cost)

Option #5. An asset is leased with an initial payment (upon delivery) of \$11,391.16 and four more annual payments of 11,391.16. At the end of the fifth year the asset can be purchased for a buy-out price of \$2,750

- a. First calculate the remaining value of the asset. It is actually \$2,500 (2,750 - 250 interest = 2,500 remaining principal)
- b. $11,391.16$ (annual payment) $\times 3.1699$ [$n=4$] = $36,108.84$ (remaining liability)
- c. $36,108.84 + 11,391.16$ (initial principal payment) = $47,500$
- d. $47,500$ (lease value) + $2,500$ (remaining asset value = $50,000$ (total asset value)
- e. In this case, only the $47,500$ (lease value) would be amortized/depreciated as an asset value and only $36,108.84$ would be amortized as a liability on the balance sheet. The buy-out value of the asset would not be shown until it was actually purchased.

If you are setting up a new balance sheet during the term of an on-going capital lease, use the annual payment, the (actual or imputed) interest rate and the number of remaining payments to determine the capitalized asset and liability values remaining. In most cases, understanding the rationale is more difficult than actually performing the calculations.

Importance of Procedure:

The rationale behind standards, such as the FFSC ratios is the ability to compare an individual farm with a database. However, standardized calculations are worthless if the input data does not also conform to a standard reporting procedure. The decision to correctly include the capital lease value and liability on the balance sheet (rather than simply treating the lease payment as an annual operating expense) impacts thirteen of the sixteen FFSC ratios:

Current Ratio, Working Capital, Debt to Asset Ratio, Equity to Asset Ratio, Debt to Equity Ratio, Return on Assets, Return on Equity, Term Debt Coverage Ratio,
Asset Turnover Rate and all four Operational Ratios.

Reporting capital lease payments correctly in their component parts of interest and principal, rather than as a single operating expense (lease payment) will impact the remaining three financial ratios; Operating Profit Margin, Net Farm Income, and Capital Replacement and Term Debt Repayment Margin.

In management, being able to make consistent and accurate comparisons is important. Admittedly, one can compare with one's own trends over the years using non-standard measures or non-standard data to calculate these measures. However, in these times of narrow margins it is increasingly important that producers be able to compare their performance not only with themselves, but with that of their competition as well. Following standardized procedures is the key to reliability, consistency and accuracy.

Present Value Table:

An abbreviated present value table for interest rates between 5% and 15% and lease terms between 2 years and 15 years is provided on the following page. More extensive tables can be found in accounting texts, or other sources.

Present Value Table

N	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
2	1.8594	1.8344	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901	1.6681	1.6467	1.6257
3	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018	2.3612	2.3216	2.2832
4	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373	2.9745	2.9137	2.8550
5	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048	3.5172	3.4331	3.3522
6	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975	3.8889	3.7845
7	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638	4.4226	4.2883	4.1604
8	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676	4.7988	4.6389	4.4873
9	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	5.1317	4.9464	4.7716
10	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.8892	5.6502	5.4262	5.2161	5.0188
11	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	6.2065	5.9377	5.6868	5.4527	5.2337
12	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.4924	6.1944	5.9176	5.6603	5.4206
13	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.7499	6.4235	6.1218	5.8424	5.5831
14	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.9819	6.6282	6.3025	6.0021	5.7245
15	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	7.1909	6.8109	6.4624	6.1422	5.8474

N = number of annual payments

IV.

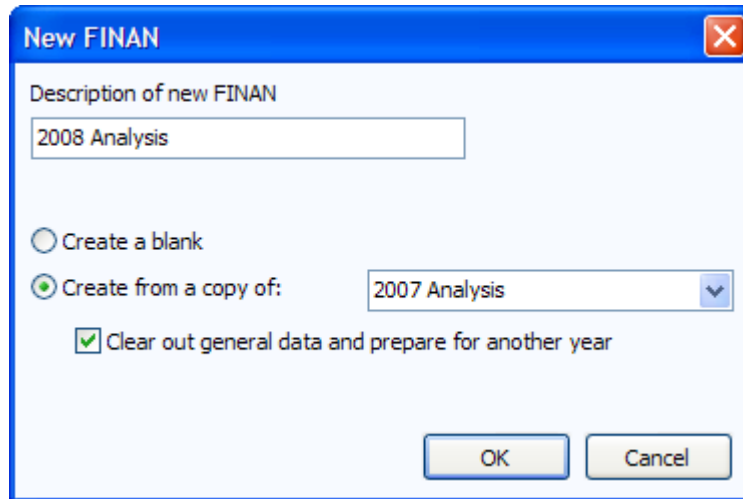
Finan
Instructions

INPUT INSTRUCTIONS FOR FINAN

CREATING A NEW FINAN

In all areas where you wish to detail, use the **Details button or double click in the entry box** to do so. Many times it is helpful. Black numbers indicate no detail, blue indicates detail.

Data File Name: Use a unique file name. Remember, when your Dean calls with a data problem you need to be able to identify the farm by this number.



The analysis name must be entered on this screen. It can be changed on the “File Navigator” screen if need be later. Recommendation: 2xxx Analysis

If possible, copy a previous year’s analysis and check “Clear out general data and prepare for another year.” All data will be deleted except:

- General Information and Summary Information pages remain unchanged. The Balance Sheets from last year remain selected; you need to select the appropriate Balance Sheets for this year.
- All detail values are deleted but the descriptions remain.
- Value of Labor and Management remains (Other Information page).
- Labor hours remain.
- Related Operating Expense Allocations to Crops, Livestock, and Other Enterprises remain.
- Crop names, descriptions, and acres stay in the Crop Enterprise Analysis.
- The Default Allocations stay in the Allocated Crop Expenses. Changes for interest allocation for sugar beet stock also remain and need to be changed.
- Livestock names and descriptions remain.
- Individual feed items remain, but quantities and dollars are cleared.
- The Default Allocations stay in the Allocated Livestock Expenses.
- Other Livestock Information such as; average number of head, normal total gain per head, barn capacity, or number of litters remain.

GENERAL INFORMATION

Year of analysis	2008
Beginning balance sheet	January 1, 2008
Ending balance sheet	January 1, 2009
Cash flow plan for comparison (optional)	

Type Of Analysis

Whole Farm
 Whole Farm with Enterprise Analysis

Include in a group summary

- 1) Enter analysis year.
- 2) Select “Whole Farm with Enterprise Analysis”
- 3) Check include in group summary

Type of business	sole proprietor
Farm ID	123456
State	Minnesota
County	Goodhue
Total acres owned	160
Number of operators	1
Operator number 1	
Year born	1938
Year started farming	1962
Operator number 2	
Year born	0
Year started farming	0
Operator number 3	
Year born	0
Year started farming	0
Operator number 4	
Year born	0
Year started farming	0
Operator number 5	
Year born	0
Year started farming	0
Special sorts	None

SUMMARY INFORMATION

- 1) Select proper type of business organization
- 2) Enter the producer's unique Farm ID. If you do not know the correct ID, contact your regional Dean. This is necessary to keep unique ID#'s for the State Data Base
- 3) State and County - Enter State and County name from pick lists
- 4) An operator is generally defined as one family that relies on the farm for family income and receives that income in the form of farm earnings (or owner wages in the case of a corporation). A husband and wife unit is generally considered one operator. Additional family members or partners are operators if they are not paid labor. It is possible to enter decimals for part-time operators but unless the producer spends less than 50 percent of his/her time on the farm, the farm should have at least one operator.
- 5) All data is required by RankEm. Be sure to enter Acres Owned, Number of Operators to the tenth, Primary Operator Year of Birth and Years Farming.
- 6) Special Sorts: Be sure to identify organic, [farms in organic transition](#), and specialty crop farms as well as farms that expanded or contracted during the year. A general guideline for use of the expansion or contraction is when there has been a 25% change in physical units of production or investment.

CAPITAL PURCHASES AND SALES:

- 1) *Beginning Values and Ending Values* are displayed from the Balance Sheets. Enter capital purchase and sales.
- 2) *Enter Capital Purchases and Capital Sales.* For capital sales, always use **Detail** to enter the Balance Sheet Value of the asset sold. With this, FINAN will calculate the gain or loss on the sale.
- 3) Enter any assets repossessed under Capital Sales detail.
- 4) *Breeding Livestock* ~ Be sure you don't enter sales both here and on Cull Breeding under "Other Income." Recommendation: Enter whole herd liquidations and major herd reductions here and enter normal cull sales under "Other Income".
- 5) *Other Intermediate Assets* ~ Include sugar beet and corn processing stock purchases and sales. Be sure to include changes in PCA or FCS Stock as a purchase or sale as appropriate. Include sugarbeet unit retains (both sold and purchased). Enter any change in positive livestock ledger accounts from the beginning to the end of the year as a purchase or sale. Ledger "purchases" should also be added to livestock sales. Ledger "sales" should also be subtracted from livestock sales.
- 6) *Other Long Term Assets* ~ Be sure to include Patronage, stock redemption or retirement as a sale.
- 7) *Personal Capital Purchases and Sales*~ All purchases and sales of nonfarm capital assets should be listed in the proper category. Premiums on whole life insurance policies should be included in nonfarm capital purchases.

LIABILITIES:

- 1) *Beginning and Ending Principal Balances* are displayed from Balance sheets.
- 2) Enter *Money Borrowed and Principal Paid* for each loan.
- 3) Enter *Principal Forgiven* under Principal Paid **Detail**.
- 4) Enter *Accounts Payable Forgiven* under Accounts Payable Principal Paid **Detail**. This is the only entry allowed for Accounts Payable.
- 5) *Ledger Contracts*. Beginning and ending balances should be listed from the balance sheet if the balance is negative. Enter increases as money borrowed and decrease livestock income by the same amount. Enter decreases as principal paid and increase livestock income by the same amount.
- 6) *New Loans*. Enter loans taken this year as money borrowed.
- 7) Under each loan type or by individual loan, check liability balances as follows:

$$\text{Beginning Balance} + \text{Amount Borrowed} - \text{Principal Paid} = \text{Ending Balance}$$

FARM INCOME:

Crop Sales ~ Enter per crop; gross quantity of crop sold and gross income received.

Government Crop Loans ~ Loans listed on the beginning or ending balance sheet will appear automatically. Complete the entries on these loans and enter all information on loans received and repaid within the year.

Crop	Description	Quantity	Loan Mo/Year	Loan Amount	Total Repaid	Sale Proceeds	Forfeited	Loan Or Income
Corn		8,000 bu.	12/2007	14,560	14,868	37056	No	Loan
Corn		15,000 bu.	12/08	27,300			No	Loan
							No	Loan

Information entered should be the same whether treated as Loan or Income. Enter the original loan balance as the Loan Amount. If the loan was repaid during the analysis year, enter the Total Repaid and if the crop was then sold, enter the Sales Proceeds.

If Loan is selected:

- Loan Amounts received during the analysis year will be included in Money Borrowed.
- If there is an amount in Total Repaid, the entire Loan Amount will be included in Principal Paid.
- If the Total Repaid exceeds the Loan Amount, the difference will be added to Farm Interest.
- If the Total Repaid is less than the Loan Amount, FINAN will add the difference to income as CCC Marketing Loan Gain.

- Amounts in Sales Proceeds will be treated as normal sales.
- If Forfeited, the Loan Amount will be added to principal payments and a crop sale equal to this amount will be included in Farm Income.

If Income is selected:

- Loan Amounts received during the analysis year will be treated as income.
- If the Sales Proceeds exceed the Total Repaid, the difference will be included in income as a Net Government Sale.
- If the Sales Proceeds are less than the Total Repaid, the Total Repaid will be treated as an Expense (CCC Buyback) and the Sales Proceeds will appear as a normal crop sale in farm income.
- If there is no amount in Sales Proceeds, the amount repaid will be included in farm expense as a CCC Buyback.
- Forfeit has no effect on income or expense as the Loan Amount has already been treated as income.

Note: If part of a loan has been repaid by the end of the analysis year, enter the portion remaining as a separate loan on the ending balance sheet. The portion repaid should be entered as borrowed and repaid in FINAN.

Livestock Sales ~ Enter number sold, total live weight pounds sold, and gross income received of market livestock. Record Cull Livestock in Cull Livestock section, not here.

(To calculate live weight on grade and yield, divide the carcass weight by the yield, recommended yield 75%.)

For livestock sold on ledger contracts, increase or decrease cash sales by the change in the ledger balance. Show offsetting capital purchases, capital sales, borrowings or principal paid to balance cash flow.

Livestock Products ~ Enter gross quantity and gross income received.

OTHER INCOME:

Cull Breeding Stock ~ Enter normal income received from Cull Breeding Stock on income statement. Breeding stock sales should be entered as capital sales only when liquidating a herd or doing a major downsizing. Use Detail to allow Selecting the data into the Enterprise Analysis.

Miscellaneous Livestock Income ~ Enter any miscellaneous livestock income.

LDP Payments ~ Include all LDP Payments received during the Analysis Year.

Direct, CCP & CC ACRE Payments ~ Include all **cash** Direct, Counter Cyclical, and ACRE Payments received here. Previous year payments or pending current year payments should be included on the Balance sheet.

Special note for CCP and ACRE payments--CCP and ACRE payments present a special problem because the amount of the payment is not known until the end of the marketing year. This uncertainty makes it almost impossible to accurately match income to the production year. Below are acceptable approaches. All approaches require entry of all cash payments received as income in the year received, no matter what crop year they belong to. Any adjusting entries will be entered on the balance sheet. Acceptable approaches include:

1. Simply include all payments actually received in the year received. If payments received from previous years are repaid, deduct them from payments received for this year (or enter negative income if necessary). Make no additional balance sheet adjustments.
2. Same as 1 but, for those who **do not** take estimated payments at harvest, include payments they were eligible to receive as accounts receivable.
3. Same as 1 but, for those who **do** take estimated payments at harvest, include estimated payments received as accounts payable.

Regardless which approach is used, the most important recommendation is to be consistent from year to year.

CRP Payments ~ Enter all cash CRP Payments received in the analysis period.

Livestock Govt Payments ~ Include dairy payments as well as any other livestock related payments.

Other Government Payments ~ Enter any other government payments, such as SURE payments, other disaster payments, EQIP Reimbursements, CSP payments, etc.

Special Note for EQIP and Other Cost Share Payments: It is recommended that cost-share for feedlots and other large capital purchases be entered in the following manner to minimize distortion of net farm income and enterprise profitability. Enter the total cost as a capital purchase and the cost-share portion as a capital sale. On the ending balance sheet, the cost value of the asset should reflect the total purchase amount less the government cost-share payment, less the appropriate amount of depreciation for the year. The market value should reflect the full asset value. This will balance the cash flow but will exclude the cost share payment from net farm income without distorting depreciation.

Example: If the total cost of a feedlot is \$100,000 and government cost-share is \$48,000, then \$100,000 should be entered as capital purchase (buildings and improvements) and \$48,000 as capital sale. The ending cost value of the feedlot on the balance sheet is \$49,400 (\$100,000 minus \$48,000= \$52,000

*95% to depreciate over 20 years). The market value should be the estimated amount by which the addition of the feedlot increased the market value of the property on which it was built.

Custom Work ~ Enter all cash farm related custom work income.

Patronage Dividends ~ Enter all **cash** patronage dividends and cash unit retains received. Additional stock accumulation should be recorded on the Balance Sheet.

Insurance Income ~ Enter the gross cash for all insurance income payments.

***Cash Withdrawn from Hedging Accounts* ~ Enter all cash withdrawn from hedging accounts.**

Special note on hedging transactions: If you do not have accurate record of cash deposits and withdrawals, the net cash transactions for the year can be calculated from Forms 1099: The net deposits/withdrawals = Form 1099, enter Box 11 + beginning balance sheet value – ending balance sheet value. If the result is positive, enter as cash withdrawn from hedging accounts and if negative, enter as hedging account deposits.

Other Farm Income ~ Enter all cash **farm** income not previously entered.

FARM EXPENSES:

Crop Expenses/Livestock Expenses/Related Operating Expenses ~ Enter all actual cash farm expenses paid during the calendar year.

Note: Include all expenses for trucking, commission association dues, and marketing fees that are deducted from gross sales of grain, livestock, or livestock products.

- Free seed, chemicals, etc: enter as Other Farm Income and Seed/Chemical/etc. expense;
- Fertilizer and chemical application: Custom Hire;
- Employee benefits: Hired Labor;
- Precision farming expenses: if they do not fit elsewhere, include in Misc. Crop Expense.
- DHIA and BST: These expenses will be listed if you have downloaded the FINPACK setup files;
- Cash salaries, wages, and benefits to operators: Enter in Owner Wages and Benefits and reduce Value of Operator Labor and Management;
- Feed additives: Purchased Feed;
- Livestock implants: Veterinary;
- Manure handling: Custom Hire if hired;
- Hoof trimming – Custom Hire;
- Milk hauling – Trucking and Hauling.
- Crop Storage Charges – Miscellaneous Crop Expense.

Use Detail for Purchased Feed to specify the feed commodities purchased which will then contribute to the Amount Available for feed in the Livestock Enterprise Analysis.

Detail: Purchased feed

Type of Feed (Optional)	Description	Quantity	Value
Corn	Dairy	5,343 bu.	23,423
Protein Vit Minerals	Dairy	204 ton	32,256
Total			55,679

Close

Use Detail to list interest paid on individual loans. This will automatically transfer to the interest breakdown on the enterprise analysis. Do not include interest on CCC loans as it will be calculated from the Government Crop Loans entries.

Detail: Interest

Loan	Description	Amount
Accounts Payable		0
Fourth National Bank	Operating	1,975
Fourth National Bank	Machinery	6,817
Fourth National Bank	Real Estate	6,866
Fourth National Bank	Cattle	1,910
John Deere Credit	Tractor	1,218
Fourth National Bank	Cows	2,122
Total		20,908

Close

Special Note for ethanol plant and other entity investments: Income from and/or expenses related to ethanol plants and other entity investments may have a significant impact in certain years. It is left to the producer/student and instructor to decide whether these transactions result in farm (or non-farm) income. Treatment should be consistent from year to year and should be consistent with treatment of the business investment on the balance sheet. Payments received that are related to pledged bushels will usually be

entered as farm income. If entered as farm income, include income tied to pledged bushels as Other Income on the Crop Enterprise Analysis. Exclude payments that reflect dividends on investment unrelated to specific bushels from the Crop Enterprise Analysis. These payments may be included in a Value Added/Non-Farm Enterprise Analysis to evaluate the profitability of these investments.

PERSONAL INCOME

Enter all cash **non-farm** income received during the analysis period.

Warning: Do not double count dividends, tax refunds that may have been **farm** income such as gas tax refunds, property tax refunds, etc.

OTHER INFORMATION

Gifts and Inheritances ~ Enter cash gifts and cash inheritances received. For non-cash items, enter the value as a capital purchase and offset the purchase by also entering the value here.

Family Living Expense ~ Enter cash family living expenses including personal share of utilities, insurance, property taxes, and any other such expense. The total expenditure should be tracked for each operation, whether or not detailed family living expenditures are recorded. If Detailed family living expenses are entered, be sure to enter the number of family members. Enter owner wages as farm expenses, not owner withdrawals. **For partnerships, use detailed family expenses or enter total under partnership withdrawals detail item, not both.**

Income and Social Security Tax Paid ~ Enter all cash income and personal self employment taxes paid during the calendar year.

Cash Gifts Given ~ Enter all cash gifts given.

Estimated Value of Labor and Management ~ This is the opportunity cost charged for unpaid operator labor and management when calculating the Rate of Return on Assets and Rate of Return on Equity. It is also combined with any Owner Wages and Benefits expense and deducted from the enterprise analysis reports. In the RankEm Summary reports it is always combined with Owner Wages and Benefits to make farms of different ownership structure comparable. For sole proprietors and partnerships, the recommended rate for 2010 is: \$20,000.00/full time operator plus 5% of value of farm production. This is a guideline only; adjust for very small or very large farms. Other adjustments:

- For corporations, if owner compensation is included in Owner Wages and Benefits expense, enter zero.
- For sole proprietors and partnerships, if any compensation is included in Owner Wages and Benefits, reduce Value of Labor and Management by the same amount.
- Wages paid to children and other family members (other than operators and their spouses) who have no at risk capital investment and do not share in profits should be included as hired labor expense and have no effect on this entry.

CASH FLOW CHECK

At any time during data entry, click the check-mark icon  on the toolbar to view the cash flow check.

	Amount		Amount
Beginning cash balance	1,254	Ending cash balance	3,624
Gross cash farm income	272,271	Total cash farm expenses	202,056
Personal income	17,158	Owner withdrawals for family living	47,787
Capital sales		Capital purchases	12,500
Money borrowed	85,888	Principal payments	104,437
Gifts and inheritances		Gifts given	
Beginning personal savings	1,634	Ending personal savings	1,634
		Income taxes	8,557
Total inflows	378,205	Total outflows	380,594
		Discrepancy	-2,389

LABOR HOURS

Use labor records or estimate the total hours of labor employed by the farm for the year. Hours of labor guideline for unpaid operator and family labor:

Operator:

Crop Farm Only	=	2,000 Hours
Diversified Crop/Livestock	=	2,500 Hours
Intensive Livestock	=	3,000 Hours
(These are guidelines, adjust to fit the operation.)		

Make adjustments for part time situations and as needed. Remember to include the spouse and other family members in addition. (This input is critical to the hours of work listed on the analysis in each individual enterprise.)


ACCRUAL ADJUSTMENTS TO RELATED OPERATING EXPENSES

This section makes adjustments to the cash expenses to arrive at the amount actually incurred for the analysis year. Recommendation: Enter the detailed expense categories for prepaid expenses, growing crops, accounts payable and accrued interest on the balance sheets to automatically complete this page.

FARM INTEREST BREAKDOWN - Enter interest accrued during the calendar year. When detail is used for farm interest expense input, the amounts automatically move to this location, therefore, you do not have to input them here. For sugar beet stock loans, see sugar beet section.

Cash Interest Paid + Ending Accrued Interest - Beginning Accrued Interest = Interest on Debt. Interest on Debt needs to be allocated to operating, intermediate and long term.

RELATED OPERATING EXPENSE ALLOCATIONS (DO NOT FORGET THIS SECTION!!!)

Enter the proportion of the total for each allocated expense to crop, livestock, and other (value added/non-farm) enterprises. Toggle  to enter dollars instead of percentages.

Note: To maintain meaningful trends, attempt to be consistent from year to year unless there are major changes to the farming operation. The average for power and machinery is 75% - 80% to crops, for building and fences is 30% - 35% crops.

CROP SHARE RENTAL ARRANGEMENTS – Select whether the operation being analyzed is the Renter or Landlord . Then enter their share of the production and expenses.

Note for Zero Cash Rental Arrangements

If a producer rents land for zero cash rent, enter as a 100% share arrangement with the renter also paying 100% of all expenses.

CROP ENTERPRISE ANALYSIS

A change that should be noted for the crop enterprises that actually came with the new version three years ago but that most instructors did not realize had been changed is that just reselecting a crop enterprise will not change the allocation factors to the default setting found in the setup files. If you want to change the allocation factors to the default settings you must actually change the enterprise heading to another crop and then reselect your original crop.

It should also be noted that with the new version of FINPACK if you start a new year by copying the previous year and clearing the data from the previous year the program will change all of the enterprise allocation factors to those found in the setup file.

Crop Name ~ Use the crop list (“Down arrow” Pick List). If you want to use a crop that is not listed, contact your regional Dean. User added crops, those that are not in the FINPACK master list, will not be included in summary reports.

- For hay crops, recommended enterprises are:
 - Alfalfa hay
 - Hay mixed, alfalfa/grass
 - Grass hay
 - Small grain hay (This category includes oats hay, barley hay, rye hay and all crops planted for hay. Do not use for crops that were planted for grain but were hayed due to drought.)
 - Summer annual hay (This category is to be used for sudan grass, millet, etc. Put the type in the description to help the farmer identify the crop.)
- For haylage and other wet forages other than corn silage, it is recommended but not required that the dry hay crop name be used and the forage production be converted using the formula under Total Production.
- Organic conversion crops should be listed using the conventional crop name until they reach organic certification.

Description ~ You may use this to further describe the crop or field. Be consistent. This description can be used to select specific fields in historical database reports. For “small grain hay” use the description to identify barley, oats, and mixed. For “summer annual hay” use the description to identify millet, sorghum, etc.

Crop Type ~ Use only if applicable. The default is normal crop.

- Hay establishment should be entered separately from full production hay and coded establishment. If seeded with a cover crop such as oats, enter the alfalfa in a separate column from the cover crop and code it establishment/double crop. (The cover crop should be left as Normal). Use your judgment in allocating seed, fertilizer and other direct expenses between the enterprises. Reduce the overhead allocations so that only one acre of expense is allocated to the two enterprises.
- Be sure to code irrigated crops – they should not be summarized with dryland acres.

Acres Owned ~ Either total crop or each field owned.

Acres Cash Rented ~ Either total crop or each field cash rented.

Acres Share Rented ~ Either total crop or each field share rented.

Your Share ~ Must choose a % production from the above crop share rental arrangements. (100% if owned or cash rent.)

Total Production ~ Bu, Cwt, Tons and total volume produced for this field or crop (your share). Use the FINPACK unit whenever possible.

- Convert haylage to dry hay equivalents using the following formula
 - (% dry matter of wet crop ÷ % dry matter of hay equivalent) * wet production
 - Example for converting 100 tons of haylage:
(.50 dry matter haylage ÷ .85 dry matter hay) * 100 = 58.8 tons
- Convert high moisture corn to dry corn equivalent.
- For CRP, Custom Work, Prevented Planting, and Rented Out, enter the dollars received as the production and \$1.00 for the Value Per Unit.
- For pasture, estimate production in AUMs based on these animal units:

<i>1000 lb. Cow/calf</i>	<i>1.00</i>
<i>1100 lb. Cow/calf</i>	<i>1.07</i>
<i>1200 lb. Cow/calf</i>	<i>1.13</i>
<i>1300 lb. Cow/calf</i>	<i>1.20</i>
<i>1400 lb. Cow/calf</i>	<i>1.28</i>
<i>1500 lb. Cow/calf</i>	<i>1.35</i>
<i>Replacement Heifers (varies with size)</i>	<i>0.70 to 0.80</i>
<i>Mature bull</i>	<i>1.35 to 2.00</i>
<i>Calves by themselves</i>	<i>0.30</i>
<i>Weaned calves to yearling</i>	<i>0.60</i>
<i>Yearling cattle (600-800 lbs)</i>	<i>0.75</i>
<i>2-year old cattle</i>	<i>0.85</i>
<i>Dairy cow</i>	<i>1.30</i>
<i>Ewe/lamb pair</i>	<i>0.20</i>
<i>Mature horse</i>	<i>1.50</i>

For example, if a pasture enterprise fed one hundred 1100 pound beef cows for six months, enter 642 aums (100 cows x 1.07 animal units x six months). This same amount should be entered as a feed expense to the beef enterprise analysis.

Value Per Unit ~ For crops already sold or contracted for sale, enter the actual sale/contract price. For crops in inventory, use the ending inventory value with a minimum of the loan rate for program crops. For crops already fed, use a conservative sales value and use this same value for valuing the feed in the Livestock Enterprise Analysis. Forage values should reflect relative feed value (RFV) and be based on estimated sales value, not purchase prices. Stearns DHIA Laboratories provides actual auction prices based on RFV at: <http://www.stearnsdhialab.com/Auct-Hay.htm>.

Other Income ~ Allocate hedging gains or losses, crop insurance income, LDP payments for this year's production, Direct, CCP and ACRE payments, and any other income for this crops. Examples are straw sales, crop specific disaster payments, and hauling allowance. Enter **Detail** to document what was included. Use the -X method to allocate across like enterprises (see Direct Expenses below).

Note on Allocation of Government Payments: Direct, CCP and ACRE payments are entered here but will be added to the net return at the bottom of the output report. Use your discretion to allocate payments to crop enterprises. Allocate by farm unit if possible. If crop rotations have not changed substantially since bases were established, payments can be allocated to program crops acreages only. If crop rotations have changed, it is recommended that payments be allocated over all tillable acres, except edible beans, carrots, potatoes, or other vegetable crops.

Direct Crop Expenses ~ Expenses (accrual basis) for this crop. For like enterprises, you can enter the total cost for a Direct Expense category (fertilizer) in one column (1). You can then assign it equally to the other fields using a "-1" in the new enterprise(s). The "-X" indicates the column location of the first enterprise. (Crops do not have to be listed side-by-side for this to function properly.)

Seed ~ Seed expense (may include seed treatment). Assign a realistic expense for home-grown seed used. (Usually market price, plus cleaning treating and hauling). For canning crop enterprises, particularly peas and sweet corn, if the producer actually paid the seed expense, enter zero seed expense and reduce the Value per Unit to decrease gross return by the amount of the seed cost.

For hays, seed expenses should appear only on establishment enterprises and not on the full production enterprises unless there were re-establishment costs. If re-establishment occurred, make a note in the FINAN for reviewers.

Fertilizer ~ Fertilizer or purchased manure. If custom applied, include product cost only and include application expense in custom hire.

Crop Chemicals ~ Chemical expenses. If custom applied, include product cost only and include application expense in custom hire.

Crop Insurance ~ Hail and other crop insurance. Include gross premium, with any income listed as "Other Income".

Drying Fuel ~ Amount of drying fuel for the crop.


Custom Hire ~ Fertilizer, chemicals, aerial application, and freight charges for sugar beets.

Hired Labor ~ Special hired labor usually limited to sugar beets and potatoes.

Land Rent ~ Cash rent amount total for this crop or field.

Machinery leases ~ True leases specific to this crop or field.

Marketing ~ Commodity marketing consultants, hedge or option expense, sugar beet joint ventures contract. (See sugar beet stock page for owned stock).

Allocated Crop Expenses ~ Enter allocation factors that weight the expense portion allocated to each crop on a per acre basis. Toggle  to view in Dollars but entries must be made as allocation factors.

Default Allocation ~ This allocation will be used for any expense that has no entry below. The Standard Allocations prepared by the Regional Dean will automatically appear when the crop is selected. Adjustments can be made to any individual line, however.

Other Crop Information ~ This information will be used to provide additional detail in the state database.

Previous Crop ~ If the entire field was planted to the same crop in the previous year, enter the crop from the drop-down list.

Field County ~ The county will default to the county entered on the Summary Information page. Change if this field is in a different county.

Production Practices ~ Tillage method, row spacing, other production practices if consistent practices were employed across the entire field. If inconsistent practices were used, leave that practice blank. Note: It is just as important to specify that a specific practice was not used. For example, if no Genetic Chemical Resistant seed was used, be sure to select No.

Special Sorts ~ Use the special sorts where appropriate. Joint ventures is a must for rented Beet Stock acres.

Delete from Summary ~ Use to delete an individual enterprise only. The rest of the “Whole Farm” and Enterprise Information will be included in the summary. Do not delete because of a disaster or loss. **If you have any concern about the accuracy of the data, delete it from the averages.**

LIVESTOCK ENTERPRISE ANALYSIS

Livestock Enterprise ~ Use the livestock list (“Down arrow” Pick List). The livestock list to use is also listed at the end of this section. If you want to use a livestock enterprise that is not listed please call your Regional Dean. Be sure to use the proper enterprise.

- If beef calves are carried beyond weaning they should be transferred to a backgrounding enterprise to keep the state data accurate. If backgrounders are included in the cow-calf enterprise any figure dealing with pounds of production will be inaccurate.
- The dairy enterprise **must** be split between dairy and dairy replacements. The table below displays how dairy replacements should be included depending on whether the farm being analyzed is the dairy producer or the heifer raiser.

Activity	Dairy Producer	Heifer Raiser
Raised replacements	Dairy replacements With raised repl sp sort	
Buy / sell	Dairy replacements With buy/sell sp sort Avg head includes farmed out	Dairy repl for sale With buy sell special sort
Per head per day	Dairy replacement With perhead/perday sort Contract raising cost goes here	Dairy repl for sale With special sort

Description ~ Be consistent with input in this cell. This description can be used in the Historic Database to generate trend reports for specific herds or lots of animals.

Gender ~ This is only active for grow/finish enterprises. Use to specify male or female only enterprises. Leave this entry blank for mixed gender enterprises.


Contract ~ Use to specify that this enterprise is produced under a production contract. Contractor is the owner of the livestock. Contract Grower is the producer who is housing livestock for the owner. Leave this entry blank for enterprises that are not produced under a production contract.

Shared ~ Select Yes if this enterprise is produced on a share rental basis.


Combine with Enterprise Number ~ Use to combine the lesser enterprise with the primary enterprise. (Ex: If the Dairy Cow Enterprise is in Column 1 and the Dairy Replacements are in Column 2, enter the number “1” in this cell in the Dairy Replacement Enterprise Column.)

Special Sorts ~ Use appropriate Sorts as identified in Section V. of this Closeout Manual. Be sure to use for Organic enterprises and Dairy Initiatives farms.

Delete from Summary ~ Use to delete an individual enterprise only. The rest of the “Whole Farm” & Enterprise Information will be included in the summary. Do not delete simply because of a disaster, disease, etc.

Inventory ~ If detail is listed on the Balance Sheet, you can bring the information into the Livestock Inventory Section. To do so, first click the Detail button. Then click the Select icon from the detail toolbar  and check the animals that belong to this enterprise (see below).

Include	Description	Number	Total Weight	Total Value
<input checked="" type="checkbox"/>	Dairy cows	55		44,000
<input type="checkbox"/>	Bred heifers	11		6,600
<input type="checkbox"/>	Yearling heifers	15		6,000
<input type="checkbox"/>	Heifer calves	14		2,800
<input type="checkbox"/>	Sows	32		3,200
<input type="checkbox"/>	Gilts	9		900
<input type="checkbox"/>	Boars	2		684

Note: You can also Select  from previous entries for sales and cull sales if detail was used in the Other Farm Income page.

Born ~ For pig production enterprises, enter the number born alive. All dairy calves are born into the dairy enterprise. Those sold as calves should be sold from the dairy enterprise. All others are transferred out and into the Dairy Replacement or Dairy Steer enterprise at market value (suggested price \$100.00/head).

Sold ~ The recommended conversion for pigs sold on a carcass weight basis is to convert to live weight based on a 75% yield if actual yield is unavailable.

Cull sales ~ Downers should be included with culls, not died.


Transferred Out ~ Beef; Calves to Feeders; Dairy heifer calves from Cows to Dairy Replacements; Dairy bull calves to Dairy Steers if not sold directly from dairy enterprise; Hogs - transferred to Breeding when farrowed - transferred out at weaning from Farrowing to Finishing if Finishing is separate.

- Note: When transferring calves from a Cow-Calf Enterprise to a Beef Background or Beef Feeder Enterprise, charge 3% shrink value to the Cow-Calf Enterprise. This is done by reducing the transfer out value by 3%. This shrink cost will help the retained ownership enterprises reflect a more current analysis.

TRANSFER TABLE

Enterprise Description	Number	Pounds	Value
Beginning and Ending Inventory - Breeding Livestock	Cows on hand Bulls Bred Heifers Open Heifers kept for Breeding	Exclude for Dairy, Beef, and Sheep breeding stock.	Cost value for breeding; Market Value on market livestock
Beginning and Ending Inventory - Held for Sale	All except breeding stock	Total weight (exclude for dairy)	Market Value
Born	Born to dairy Transferred out to Replacement Dairy		
Purchased	Number of Head	Exclude for Dairy, Beef, and Sheep breeding stock.	What you paid
Transferred in (Once a cow, always a cow; Calves get born into dairy cow & transferred out)	Head Amount	Exclude for Dairy, Beef, and Sheep breeding stock.	Breeding stock at cost; otherwise Market Value
Sales (except Culls)	Number of Head including sales for breeding stock	Weight (except dairy)	Cash Receipts
Culls	Cull cows, dairy, beef, hogs, etc.	Exclude for Dairy, Beef, and Sheep breeding stock.	Cash Receipts
Butchered	X	X	X
Died – Breeding Stock	(Same as Beginning Inventory – Breeding Livestock)		
Died – Held for Sale	(Same as Beginning Inventory - Held for Sale)		

LIVESTOCK PRODUCTS AND OTHER INCOME

Milk ~ The quantity and value should be the milk produced during the analysis year. Use Detail and then the Select icon  to select from whole farm entries.

Fed ~ Milk fed to calves

Other Income – Include dairy government payments and hedging gain or loss (enter negative). For Breeding Bulls (leased out) - split out as a separate enterprise and show lease income. Use Detail to document entries.

Livestock Product Sales	Quantity	Value
Milk	Pounds	\$
Wool	Pounds	\$
Honey	Pounds	\$
Eggs	Dozen	\$

OTHER INFORMATION

Dairy ~ Required fields are Average Number of Cows and Barn Capacity. All other entries are optional for but will be included in the Historical Database and RankEm.

Hogs ~ Live to carcass weight conversion factor will default to 75% if left blank.

Grow/Finish Enterprises ~ Average “daily” Number of Head and Normal Gain per Head are required if listed. Other information should be taken from livestock inventory matrix. Normal Gain per Head is divided into the total enterprise gain to arrive at the number of head “equivalents” produced for the year. This becomes the divisor for the Per Head output column.

FEED FED

Enter the quantity and value of each feed fed. Toggle  to enter price per unit instead of total value.

- Enter haylage and other wet forages in “as fed” form or enter the dry forage name and convert to dry equivalent at your discretion. If haylage is converted to dry hay, use the following formula:
 - $(\% \text{ dry matter of wet crop} \div \% \text{ dry matter of hay equivalent}) * \text{wet production}$
 - Example for converting 100 tons of haylage:
 $(.50 \text{ dry matter haylage} \div .85 \text{ dry matter hay}) * 100 = 58.8 \text{ tons}$
- Convert high moisture corn to dry corn equivalent.
- See the discussion of AUMs under Crop Enterprise Analysis for pasture. Use the same value per unit for production of AUMs and feeding of AUMs.
- Milk replacer should be included in the Dairy Replacement enterprise and not in Dairy.

Feed	Unit
Beet pulp	Ton
Complete ration	Ton
Corn distillers dry grain	Ton
Corn gluten	Ton
Cottonseed	Ton
Creep/starter	Ton
Hay	Ton
Milk	Lbs.
Milk replacer	Lbs.
Pasture	AUMs
Protein, vitamins and minerals	Ton
Stover	Ton
Straw	Ton

DIRECT LIVESTOCK EXPENSES

Enter total dollar amount of each expense listed.

- Note the DHIA costs of a Dairy Cow enterprise should be entered separately.
- Silage bags should be included in “livestock supplies” unless the intent is sale, in which case they should be included in “miscellaneous crop expense.”
- Marketing expenses include only costs incurred in marketing and marketing decisions such as brokerage fees, advertising, state and national deductions, and use of marketing tools. Include selling expenses, check-offs, insurance, shrink, etc., but not hauling. Do not include gains and losses from hedging/options; these should be added to or subtracted from “Other Income (enter a negative if necessary).”
- Hauling and pickup charges need to be entered as “hauling & trucking.”
- Recommended allocation of manure application costs:
 - Dairy – 2/3 to livestock, remainder to crops
 - Hogs – 2/3 to crops, remainder to livestock

ALLOCATED LIVESTOCK EXPENSES

The top of the page will indicated whether you are entering Percentages or per head Allocation Factors. Allocation factors can be turned on and off under Tools. For Percentages, enter the % of the total of each expense listed. For Allocation Factors, the entries will be weighted by the number of head in the enterprise.

Default Allocations ~ This allocation will be used for any expense that has no entry below. They will appear automatically when the Standard Allocations are used.

Special notes for Dairy

— List all heifers as breeding stock.

- Cull cows will remain in the breeding herd category.
- Calves are be born in the primary dairy enterprise. Those sold are sold directly from the dairy herd. All others are transferred, females to dairy replacements, males to dairy steers at market value (suggested value \$100.00/head).

Calculations of Livestock Cost of Production with Revenue Adjustments

Livestock Cost of Production Revenue Adjustments

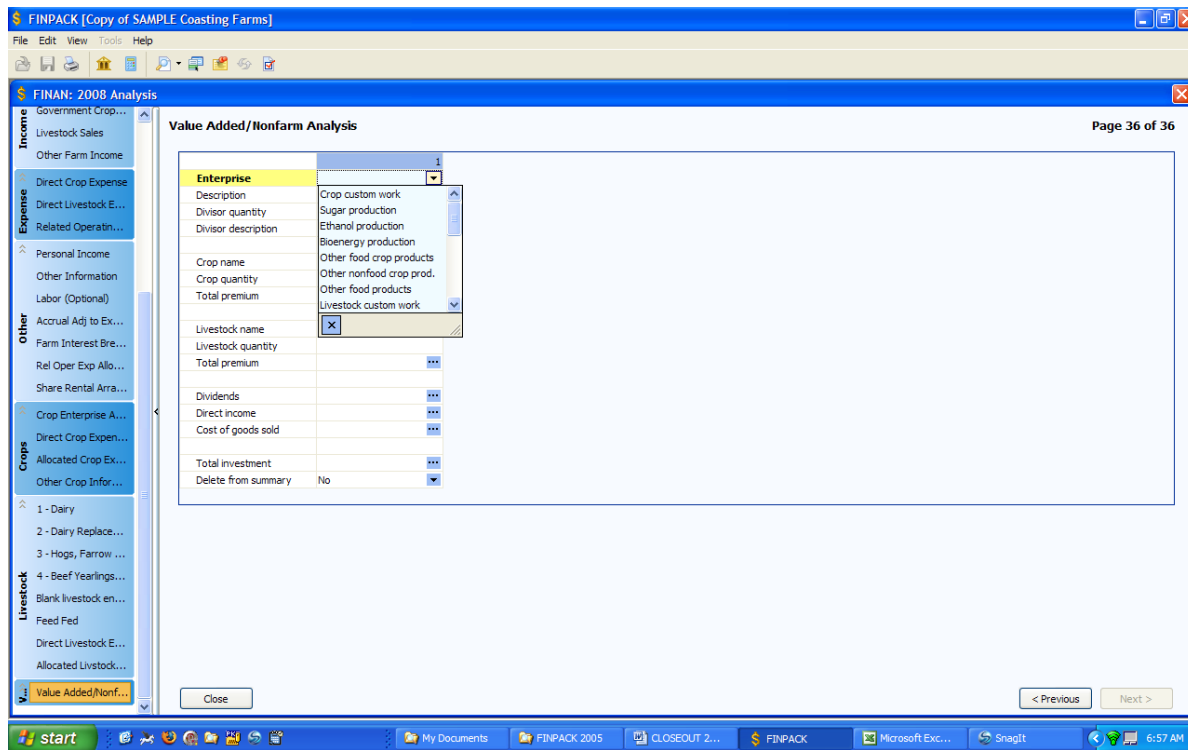
	Breeding Lvst Product Sale (Dairy)	Breeding Lvst Sale by Wgt (Beef Cow-Calf)	Breeding Lvst Sale by Carcass (Farrow to Finish)
	Cost of Prod Per Cwt. of Milk Prod	Cost of Prod Per Cwt. Produced	Cost of Prod Per Cwt Carc Sold
Total cost			
Beg inv br lvstk	Plus	Plus	Plus
Beg inv lvst hld sale	Plus		
Purchases	Plus	Plus	Plus
Trans in	Plus	Plus	Plus
Sales	Minus		
Cull sales	Minus	Minus	Minus
Butchered	Minus		
Trans out	Minus		
End inv br lvstk	Minus	Minus	Minus
End inv hld sale	Minus		
Divide by	Prod + Used + Fed	Cwt Produced	Cwt Carcass Sold

Livestock Cost of Production Revenue Adjustments (cont.)

	Breeding Lvst Sale per Head (Farrow to Wean)	Finishing Lvst Sale by Wgt (Beef Finishing)	Finishing Lvst Sale Per Head (Dairy Replace.)
	Cost of Prod Per Hd Sold/Trans	Cost of Prod Per Cwt. Produced	Cost of Prod Per Hd Sold/Trans
Total cost			
Beg inv br lvstk	Plus	Plus	Plus
Beg inv lvst hld sale		Plus	Plus
Purchases	Plus	Plus	Plus
Trans in	Plus	Plus	Plus
Sales			
Cull sales	Minus	Minus	Minus
Butchered		Minus	Minus
Trans out			
End inv br lvstk	Minus	Minus	Minus
End inv hld sale		Minus	Minus
Divide by	Head Sold/Trans	Cwt Sold/Trans	Head Sold/Trans

VALUE ADDED/NONFARM ENTERPRISES

Use the Value Added/Nonfarm Enterprise Analysis to analyze value added co-op investments, custom work, and nonfarm enterprises such as trucking and seed sales.



Enterprise ~ Select the enterprise type from the drop down list. This will only be used to sort enterprises for group summaries.

Divisor quantity and description ~ If it is useful, use this as a custom divisor for the output report. Do not use for crop or livestock units used in the enterprise – this will be included under the crop and livestock entries. The divisor description will be used in the column heading. Examples, miles for trucking, shares for co-op investments.

Crop Related Enterprises ~ If you want to analyze this enterprise based on the number of units of a crop used, enter the crop name and the number of units used/marketed. Also, if the easiest way to measure the income from this enterprise is to calculate the premium price received for the crop, enter the Total Premium income received over the price used to value the crop in the crop enterprise analysis.

Livestock Related Enterprises ~ If you want to analyze this enterprise based on the number of units of a livestock enterprise used, enter the enterprise name and the number of units used/marketed. Also, if the easiest way to measure the income from this enterprise is to calculate the premium price received for the livestock, enter the Total Premium income received over the price entered for sales of from this enterprise in the livestock enterprise analysis.

Dividends and Direct Income ~ Enter any other income for the enterprise. All income for the enterprise must be entered in Crop Premium, Livestock Premium, Dividends, and Direct Income.

Cost of Goods Sold ~ Optional, use this only if the enterprise has an identifiable cost of goods sold as would be entered on Schedule C for this enterprise.

Total Investment ~ This will be used to calculate the Rate of Return on Assets for this enterprise.

Direct Expense ~ This is the IRS Schedule C expense list. Enter all expenses except the cost of goods sold and those allocated from the farm expenses.

Allocated Expenses ~ Enter the percentage of the Value Added/Nonfarm allocated expenses to each enterprise.

V.

*Organic &
Specialty Crop
Farm Analysis*

Whole Farm Special Sorts Analysis

If all enterprises produced on the farm are certified organic, identify the producer as Organic Farm (total) in the Whole Farm Special Sorts. If some but not all enterprises are certified organic, identify the farm as Organic Farm (partial).

If the farm produces fruits or vegetables for fresh markets, identify the producer as a Specialty Crop Farm. Special emphasis should be placed on producers of fresh market apples, berries, grapes, mixed vegetables, pumpkins, and sweet corn.

Balance Sheet

For producers who are establishing new orchards or perennial crops, accumulate the costs of establishment in Other Intermediate Assets and depreciate over a conservative economic life of the plants.

Crop Enterprise Analysis

Enterprise Identification (Organic): Specific organic identifiers exist for the following crops:

Barley	Hay, alfalfa	Peas
Buckwheat	Hay, grass	Rye
Corn	Hay, mixed	Sorghum silage
Corn, blue	Oatlage	Soybeans
Corn silage	Oats	Sunflowers
Flax	Pasture	Wheat, spring

Enterprise Identification (Specialty Crops)

- Vegetables (assorted): Use this crop for multiple products produced on a small acreage, making it impractical to analyze each enterprise individually. Enter the value of the total production of these crops as the Production.
- Vegetables (high tunnel): Use this crop for vegetables produced in high tunnel facilities, again entering the total value of production as the Production.

Production: If multiple products are produced from the same acreage, follow these guidelines:

- If the multiple products result from harvesting the same product in different forms, use detail for Total Production to identify the production of each product. This would be common for taking hay and pasture from the same acreage.
- If different products are produced under two separate production activities, enter the activities as separate enterprises and identify the second, third... enterprises as double crops.
- If some crop was left in the field because of lack of markets, report the quantity sold.

Direct Expenses:

- Organic weed, insect, or other pest control – Non-Chemical Crop Protection;
- Certification expenses – Organic Certification
- Fallow – Direct expenses incurred on fallow land should be included in whole farm expenses but should be captured and included as Growing Crop expenses on the ending balance sheet. These Growing Crop expenses should then be assigned to the production crops in the following year.

Fallow enterprises should be entered to account for the acres but direct expenses should be handled as stated and overhead expenses should be allocated to production crops.

Overhead Expense Allocations: If organic and conventional production occurred on the same farm, use your and your student's knowledge of the production system to allocate overhead expenses to the various enterprises.

Livestock Enterprise Analysis

Enterprise Identification: Identify enterprises as Organic using the Special Sorts.

Feed Fed: Home produced organic feed should be valued at estimated market value for organic feed of the same quality.

Direct Expenses:

- Certification – Organic Certification

VI.

*Downloading
FINPACK
Setup Files*

DOWNLOADING FINPACK SETUP

Download the FINPACK setup for your region by:

1. Go to: <http://www.cfm.umn.edu/>
2. Select Publications + Educator FINPACK Setups
3. Click **Start Download**
4. Save FPUUniformSetup.exe to your computer and run it
5. Select your group from the State/Region drop-down list
6. Follow the steps to finish the setup installation

VII.

*Allocation
Factors*

Suggested Allocation Factors

Barley.....	3/acre	Beef Backgrounding.....	2.5/head
Beans, Black Turtle.....	4/acre	Beef Breeding – Cow Herd.....	12/cow
Beans, Dark Red Kidney.....	4/acre	Beef Finishing.....	2.5/head
Beans, Food Grade.....	3/acre	Beef Replacements.....	2.5/head
Beans, Garbonzo.....	4/acre	Beef, Other Breeding.....	16/cow
Beans, Great Northern.....	4/acre	Dairy – Milking Herd.....	70/cow
Beans, Navy.....	4/acre	Dairy – Replacements.....	12/head
Beans, Pinto.....	4/acre	Hogs, Farrow to Finish.....	14/litter
Buckwheat.....	3/acre	Hogs, Finishing.....	2/head
Canola.....	3/acre	Hogs, Mixed.....	10/litter
Corn.....	5/acre	Sheep, Feeder Lamb Production.....	2/head
Corn Silage.....	6/acre	Sheep, Lamb Finishing.....	0.5/head
Crambe.....	3/acre	Sheep, Whole Herd.....	3/head
CRP.....	0.1/acre		
Fallow (conventional tillage).....	2/acre		
Flax.....	3/acre		
Hay, Alfalfa (1 cutting).....	2/acre		
Hay, Alfalfa (2 cuttings).....	3.5/acre		
Hay, Alfalfa (3 cuttings).....	5/acre		
Hay, Grass.....	2/acre		
Hay, Mixed Alfalfa/Grass.....	2/acre		
Hay, Small Grain.....	2.5/acre		
Hay, Summer Annual Grass.....	2.5/acre		
Haylage.....	4/acre		
Lentils.....	3/acre		
Millet (Grain).....	3/acre		
Mustard Seed.....	3/acre		
Oats.....	3/acre		
Pasture.....	0.1/acre		
Peas, Field.....	3.5/acre		
Potatoes.....	30/acre		
Prevented Planting.....	1/acre		
Rented Out.....	0.1/acre		
Rye.....	3/acre		
Safflower.....	3/acre		
Soybeans.....	3/acre		
Sugar Beets.....	16/acre		
Sunflowers, Oil (rowed & solid seeded)....	3.5/acre		
Sunflowers, Confectionary.....	4/acre		
Wheat, Durum.....	3/acre		
Wheat, Spring.....	3/acre		
Wheat, Winter.....	3/acre		
 Custom Work:			
Swathing.....	0.25-0.5/acre		
Spraying.....	0.15/acre		
Combining.....	0.75/acre		
Seeding.....	0.5/acre		