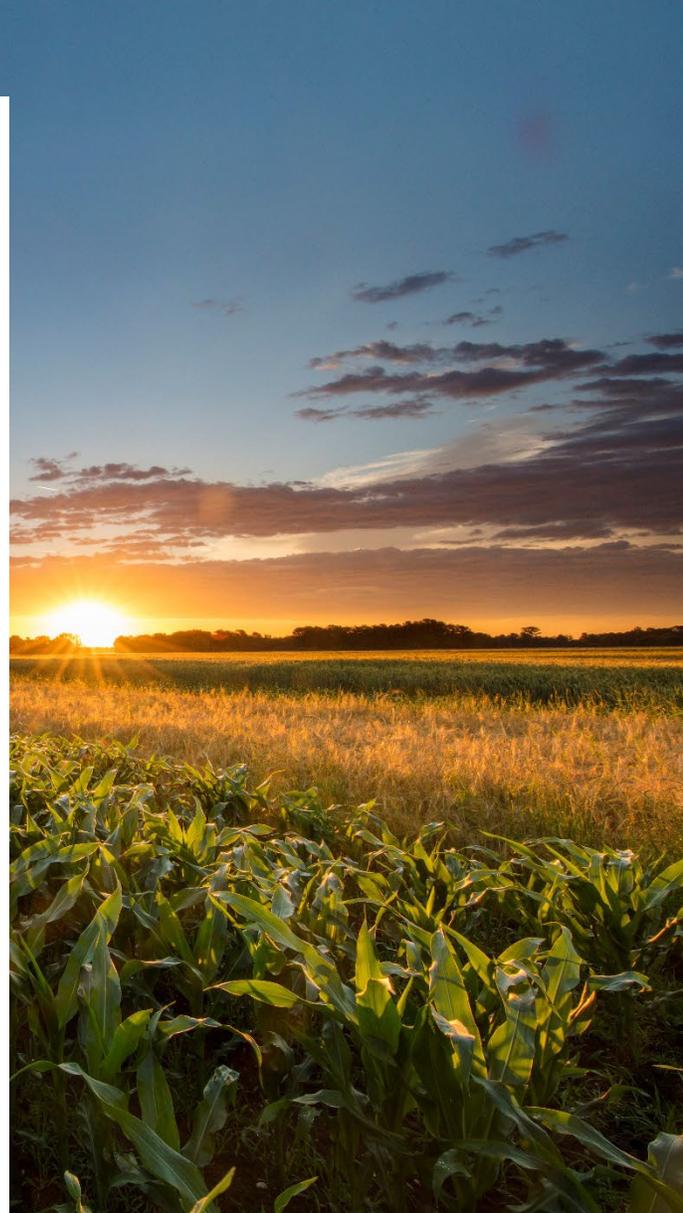


FARM RECORD ANALYSIS

CLOSEOUT PROCEDURES

2024



UPDATED: OCT. 2024

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 usable set of benchmarks for producers.

Brown text indicates current year additions/revisions.

Text underlined in blue is hyperlinked to the corresponding analysis section or an outside resource for further detail.

Acknowledgements

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

This manual is funded by a National Farm Business Management and Benchmarking Grant from the USDA National Institute of Food and Agriculture. This material is based upon work supported by USDA/NIFA under Award Number 2023-38504-41022 and Award Number 2024-38504-42666.

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Section I:

TIMELINES

Key Dates

- December 20, 2024 FBM Friday Webinar - New FINPACK Release, Closeout Manual & Analysis Issues
- Jan. - Early March 2025 2024 FINAN Financial Analysis Completions
- Jan – Feb 2025 Friday Help Session webinars. Details forthcoming
- February 14, 2025 FBM Friday Webinar – RankEm Review & Database Timelines
- February 27, 2025 Red River Valley Database Review, Moorhead – Ron D. & Josh T.
- Feb. 27 – March 3, 2025 College Review Sessions. – Details forthcoming from database leader.
- March 4, 2025 All FINAN’s for state database submitted to your database leader.
- March 6, 2025 Statewide Database Review Day (virtual) – Database Leaders
- March 7, 2025 **FINAL** FINAN submissions to database leaders.
- March 10, 2025 Red River Valley Database Report Completion, Fargo – Ron, Josh, NDSU
- March 10, 2025 State Database Review – Whole Farm (virtual)
- March 11-12, 2025 State Database Review and Report Development Days, St. Paul
- March 13-17, 2025 Annual Report and Special Sort Report development, Database Leaders
- March 18, 2025 PDF of 2024 Annual Report made available to FBM instructors
- March 31, 2025 FBM Annual Report available in printed form

Section II:

2024 OVERVIEW

What's New?

GOVERNMENT PROGRAM PAYMENTS

* See [screenshots](#) at the end of this section for more detail.

- **EMERGENCY ASSISTANCE FOR LIVESTOCK, HONEYBEES & FARM-RAISED FISH PROGRAM (ELAP)** ([Link](#))
 - Background: For **dairy producers** experiencing lost milk production from **H5N1**.
 - Analysis Treatment:
 1. Whole Farm – **Livestock Government Payment income**
 2. Enterprise Analysis – **Government Payment income** for milk losses from dairy enterprise. **Do not** allocate funds received related to *previous years*.
 - **TREE ASSISTANCE PROGRAM (TAP)** ([Link for Program Info.](#))
 - Background: Assistance for **orchards and nursery growers to replant or rehabilitate** eligible nursery stock lost by **natural disasters**.
 - Analysis Treatment:
 1. Whole Farm – **Other Government Payment income**
 2. Enterprise Analysis –
 - Market Channel – **add to sales** of the applicable market channel.
 - (Specialty) Crop – **Crop Government Payment income**, assuming for 2024.
-
- **AGRICULTURE RISK COVERAGE (ARC) / PRICE LOSS COVERAGE (PLC) PROGRAMS** ([Link for Program Info.](#))
 - Background: Protection program for crop producers authorized in Farm Bill related to substantial drops in crop prices or revenues (depending on the program the producer elected).
 - Analysis Treatment:
 1. Whole Farm – **Crop Government Payment income**
 2. Enterprise Analysis – **Crop Government Payment income**. Payments should be recognized as income in year received rather than estimating the amount accrued to each production year. Allocate income received to all crop acres.

-
- **DAIRY MARGIN COVERAGE PROGRAM (DMC)** [\(Link for Program Info.\)](#)
 - Background: Protection program for dairy producers when **difference between all-milk price & average feed price** (the margin) falls below a dollar level selected by the producer.
 - Analysis Treatment:
 1. Whole Farm – **Livestock Government Payment income** (gross) along with **Livestock Government Payment expense** incurred for coverage level.
 2. Enterprise Analysis – **Government Payment income** and **Livestock Government Payment expense** for dairy enterprise.

 - **INFLATION REDUCTION ACT: SECTION 22006** [\(Link for Program Info.\)](#)
 - Background: Program for FSA Direct & Guaranteed loan borrowers. **Additional automatic pymts for distressed borrowers.** Not considered loan forgiveness, will receive a 1099.
 - Analysis Treatment:
 1. Whole Farm –
 - Payment received is **Other Government Payment income.**
 - Use funds to **pay principal & interest expense** amounts paid on loan(s).
 2. Enterprise Analysis - ***Not allocated***

 - **INFLATION REDUCTION ACT: SECTION 22007** [\(Link for Program Info.\)](#)
 - Background: **Discrimination Financial Assistance Program** that provides financial assistance to those who experienced discrimination in USDA’s farm lending prior to 2021.
 - Analysis Treatment:
 1. Whole Farm – **Other Government Payment income**
 2. Enterprise Analysis - ***Not allocated***

 - **EMERGENCY ASSISTANCE FOR LIVESTOCK, HONEYBEES & FARM-RAISED FISH PROGRAM (ELAP)** [\(Link\)](#)
 - Background: For livestock producers with extra expenses from transporting water or feed for drought.
 - Analysis Treatment:
 1. Whole Farm – **Livestock Government Payment income**
 2. Enterprise Analysis – **Government Payment income** if related to **2024. Do not** allocate funds received related to droughts in *previous years*.

 - **EMERGENCY RELIEF PROGRAM (ERP)** [\(Link for Program Info.\)](#)
 - Background: Program covers losses due to **natural disaster events** in 2022.
 - Analysis Treatment:
 1. Whole Farm – **Other Government Payment income**
 2. Enterprise Analysis - ***Not allocated.*** Relates to previous year's losses.

- **FOOD SAFETY CERTIFICATION FOR SPECIALTY CROPS PROGRAM (FSCSC)** ([Link for Program Info.](#))
 - Background: Program covers **certification renewal** expenses for **specialty crop** producers.
 - Analysis Treatment:
 1. Whole Farm – **Other Government Payment income**
 2. Enterprise Analysis –
 - Market Channel – **add to sales** of the applicable market channel.
 - (Specialty) Crop – **Crop Government Payment income**, assuming for 2024.

- **LIVESTOCK INDEMNITY PROGRAM (LIP)** ([Link for Program Info.](#))
 - Background: Provides support for **livestock deaths in excess of normal** mortality because of **disasters**. Also covers ‘fire sale’ scenarios from disaster impacts.
 - Analysis Treatment:
 1. Whole Farm – **Livestock Government Payment income**
 2. Enterprise Analysis – Allocate to **Livestock Enterprise** impacted in 2024.

- **ORGANIC DAIRY MARKETING ASSISTANCE PROGRAM (ODMAP)** ([Link for Program Info.](#))
 - Background: Financial assistance for organic dairy producers that have higher costs because of the pandemic & droughts. Based on projected 2023 marketing costs.
 - Analysis Treatment:
 1. Whole Farm – **Livestock Government Payment income**
 2. Enterprise Analysis – Allocate to related **Organic Dairy-type** livestock enterprise

NEW ANALYSIS RECOMMENDATIONS AND GENERAL REMINDERS

- **BEGINNING BALANCE SHEET FOR ANALYSIS YEAR**: Do not change the beginning balance sheet of the analysis year because of significant commodity price changes during the year. For example, unpriced grain listed at the Jan. 1 market value should not be updated after the grain is sold to reflect the actual sales price.

- **ASSET VALUES**:
 - **COST VALUE** – Initially (in year 1) this is the purchase cost of the asset for the farm. Then moving forward annually an economic depreciation is applied to the asset category that reflects the estimated actual useful life of the asset group. See specific details for each asset category in the Balance Sheet section of this manual.
 - **MARKET VALUE** – This is the value the asset could be sold for. Typically, this represents a conservative valuation for each asset. The market value can be updated annually to reflect current market conditions if desired.

-
- **AGRITOURISM ENTERPRISES:** Suggestion is to analyze agritourism activities for a farm operation as a value-added enterprise. An **Agritourism** enterprise is available there.

- **INTERCROPPING PRACTICES.** Definition: the practice of growing multiple crops in the same field at the same time.

- How to Handle in Crop Enterprise Analysis

Option 1: Intercropping a second species for soil health purposes

- Example: soybeans planted with oats
- In this example, the second crop is planted with the primary crop for soil health and weed control purposes. This secondary crop is terminated with normal weed spraying during the season.
- **Analysis treatment:**
 - 1 crop enterprise analysis where the primary crop includes the expenses of the secondary crop.
 - Expenses related to the secondary crop are included in the primary crop expenses. For example, seed cost for oats as a secondary crop are included in the soybean seed cost.
 - It is assumed there are no other chemical or machinery costs, as the secondary crop is terminated with a normal spraying practices for the primary crop. If this is not the case, and extra inputs are utilized to terminate the secondary crop, increase the allocation factor for the enterprise and include any additional expenses occurred for the operations.

Option 2: Intercropping 2 crops that are planted and harvested at the same time.

- Example: “Peaola” (peas and canola) or “Soyola” (soybeans and canola) are planted and harvested at the same time. Production is separated after harvest.
- In this example, both crops will have production and are double cropped on the same acres.
- **Analysis treatment:**
 - Complete 2 crop enterprise analyses. The crop considered the double crop is the one planted to assist the normal crop. For Peaola, the canola is planted to prevent lodging of peas. Therefore, peas are the normal crop, and canola is the double crop.
 - Each crop enterprise should include production and each enterprise will have their respective expenses allocated. Consider whether allocation factors should be reduced for each crop, given the shared cropping services.

- **RELAY CROPPING PRACTICES.** Definition: a multiple cropping system that consists of planting a second crop into a standing first crop prior to harvest. The first crop is harvested earlier in the production year, before the second crop is fully grown.
 - How to Handle in Crop Enterprise Analysis
 - Example: soybeans and pennycress, soybeans and winter camelina.
 - In this example, both crops will have production and are harvested from the same acres. The pennycress or camelia are planted first, with soybeans planted into the established crop before it is harvested.
 - **Analysis treatment:**
 - Complete 2 crop enterprise analyses. The first crop harvested will be the 'normal' crop and the second crop harvested on that acre will be designated the 'double crop'.
 - Each crop enterprise will include production and each enterprise will have the respective expenses allocated. Consider whether the allocation factor should be reduced for the second crop that is 'relay planted', given the shared cropping services.

FINPACK UPDATES

- **GENERAL FINPACK UPDATES:**
 - **Creating a new Financial Analysis (FINAN) from a copy:** More options are now available when creating a new FINAN from a copy. You are able to choose whether whole farm, crop, or livestock special sorts are cleared from the file history. You will be prompted after making your selection and clicking 'OK' with confirmation questions depending on your selection.

New Financial Analysis

Description of new financial analysis

2024

Create a blank

Create from a copy of: 2023

Clear out general data and prepare for another year

Clear all whole farm special sort selections

Clear all crop enterprise special sort selections

Clear all livestock enterprise special sort selections

OK Cancel

- **FINPACK FINANCIAL ANALYSIS (FINAN) SPECIFIC UPDATES:**

- **Whole Farm Special Sorts:**

- * **Note!** Whole farm special sorts should reflect the **Primary Operator** in the analysis.

- Removed: Whole Farm – **Expansion and Contraction Special Sorts.**

- Removed: Livestock – **Dairy/Beef Cross.**

- **Chart of Account Updates:**

- Crop Additions:

- **Pennycress.** Unit = pounds.

- **Winter Camelina.** Unit = pounds.

- **Corn, Grazing** (active for North Dakota). Unit = AUM's. Variety planted specifically for grazing; a forage or pasture type crop, no production.

- Livestock Removed: **Beef, Finish Yearlings**

- Livestock Additions:

- **Dairy/Beef Cross** – includes **Dairy/Beef Cross, Feeder; Dairy/Beef Cross, Backgrounding;** and **Dairy/Beef Cross Finishing.** Use with dairy operations breeding to beef bulls

- **Beef, Bred Heifers** (active for North Dakota). For farms that are selling heifers after bred. Should include a breeding fee expense.

- Market Channel Update: *Direct to Consumer* has been changed and is now termed **Direct Meat Sales.** This provides another methodology for farms selling meat direct to consumer versus through a livestock market.

- **Value-Added/Nonfarm Enterprise Analysis Updates:**

- [See the Value-Added Enterprise Analysis section in this manual for more detail.](#)

- Value Added Addition: **Meat Sales.** To be used for 'boxed beef' and other types of direct-to-consumer meat sales.

Handling Government Payments – Whole Farm

	Amount
Miscellaneous crop income	
Cull breeding livestock	37,867
Misc. livestock income	
CCC market loan gain	
Crop government payments	7,149
CRP payments	
Livestock govt payments	
Other government payments	
Conservation govt payment	0
Custom work income	
Contract livestock income	
Patronage dividends, cash	9,801
Crop insurance income	
Livestock insurance inc	
Property insurance income	
Sale of resale items	
Cash from hedging accts	
Other farm income	38,038
Total	92,855

- CCC Market Gain & LDP Payments
- ARC & PLC Payments
- DMC Payments
- Emergency Assistance for Lvstck, etc Program (ELAP)
- Livestock Forage Disaster Program (LFP)
- Livestock Indemnity Program (LIP)
- Emergency Livestock Relief Program (ELRP)
- Organic Dairy Marketing Assistance Program (ODMAP)
- Milk Loss Program (MLP)
- Inflation Reduction Act: 22006 and 22007
- Emergency Relief Program (ERP)
- Food Safety Cert. for Specialty Crops Prog. (FSCSC)
- Tree Assistance Program (TAP)
- EQIP (for annual production expenses) & CSP pymts.
- SHIPP & Grassland Reserve Program (GRP) pymts
- Crop insurance & Prevented plant payments
- Livestock Insurance program pymts: LGM, LRP, DRP

Crop Government Payments

Crop
Description
Type
Acres owned
Acres cash rented
Acres share rented
Your Share (%)
Total production (your share)
Value per unit
Total product value
Hedging gain or loss
Crop insurance income
LDP income
Crop government payments
Other income
Combine with ent. number

NOT ALLOCATED TO ENTERPRISES:

- IRA Sect. 22006
- IRA Sect. 22007

- SHIPP, CRP – treat as a crop
- Crop insurance payments
- Prevent plant payments
- CCC Market Gain
- LDP Payments
- ARC and PLC payments
- FSCSC for specialty crops*
- TAP payments (specialty crop)
- EQIP & CSP for annual expenses

* FSCSC may be added to market channel sales if not analyzing specific crops

Livestock Government Payments

Livestock Inventory Product Sales and Other Income Other Information

	Milk Quantity		Value
Sales	2,312,050 ...	lb.	409,001 ...
Used in the home		lb.	
Fed		lb.	
Hedging gain or loss			
Livestock insurance income			
Government payments			
Other income			22,682

- LGM payments
- LRP payments
- DRP payments

- DMC payments
- EQIP & CSP for annual expenses
- LIP payments
- ELAP: Dairy impacted by H5N1
- ODMAP payments (for organic)

- NOT ALLOCATED TO ENTERPRISES:**
- IRA Section 22006 and 22007
 - ELAP funds received for droughts from previous years
 - ERP

Points of Emphasis for 2024

Whole Farm Related:

- **Total acres owned** – the value entered in Summary Information drives owned acreage reporting in FINPACK and FINBIN. Review to ensure the entry is accurate.
- **Number of operators.**
 - Include Year Born and Year Started Farming for **all operators** in the operation.
 - **Operator information – Operator number 1** should always be the ‘primary’ farmer of the operation. For example, if a generational transfer occurs and the enrolled student is a MN MDA beginning farmer scholarship recipient, update the information for **Operator number 1** to reflect this person’s year born and year started farming.
- If **major unpaid resources** are provided to the operation by a family member or similar choose one of the following approaches:
 - Include charge for estimated value of the inputs (ex: hired labor, custom hire, land rent, or machine lease) with offsetting personal Gifts & Inheritances income to balance cash.
 - Include a value for Accounts Payable Forgiven in Accrual Adjustments to Expenses data entry. This does not change any cash values of the analysis, but provides the correct value for enterprise allocation purposes. Below is a custom hire example.

Accrual Adj to Expenses

	Cash Expense (+)	Beg Prepaid Expense (+)	End Prepaid Expense (-)	Beg Accounts Payable (-)	End Accounts Payable (+)	Accounts Payable Forgiven (+)	Total To Be Allocated (=)
Direct Crop Expense							
Seed	21,747	23,725	18,500				26,972
Fertilizer	9,600	14,796	16,450				7,946
Crop chemicals	17,011						17,011
Crop insurance	5,822						5,822
Drying expense							
Storage							
Irrigation energy							
Packaging and supplies							
Hauling and trucking							
Consultants	1,410						1,410
Marketing	1,224						1,224
Transaction fees							
Miscellaneous	2,562						2,562
Related Operating Expense							
Interest	43,713			8,813	7,163		42,063
Fuel & oil	12,148						12,148
Repairs	6,151						6,151
Custom hire						11,500	11,500
Hired labor							

- Review **whole farm special sorts**: Identifying **Organic, Organic Transition, Specialty Crop, Beginning Farmer, Socially Disadvantaged/Limited Resource, and Veteran** producers.
- Use the **MN Water Quality Certified** whole farm special sort for operations certified through MN Dept of Agriculture’s MN Agricultural Water Quality Certification Program (MAWQCP).

- Enter **detailed family living** information for all farms keeping detailed records.
- **Labor Hours** – Make sure **ALL** labor hours are included for the farm operation. Place special emphasis on unpaid family labor hours accuracy. This improves accuracy and consistency for all operations and allows for better comparisons.
- Small, '**non-typical**' enterprises should be **excluded** from the database submission. These enterprises provide value for the individual farm operation but skew the results for benchmarking purposes. The whole farm information should be submitted only.
- **Miscellaneous Expense** categories should have **minimal values** entered in them, especially in the enterprise analysis.

Crop Enterprise Related:

- **Custom hired operations** - When a crop is produced using custom hired operations, for either a portion or all operations, adjust allocation factor accordingly. Use judgment. For crop enterprises that are custom harvested recommend reducing the default allocation by 50%.
- **Custom work enterprises**
 - If included in Crop Enterprise Analysis - **No** real estate taxes or long-term interest expenses allocation. Enter custom work acres as rented acres in the analysis (zero land rent expense is acceptable here).
 - Alternative is to include as Value-Added Enterprise.
- **Review special sorts, tillage system, previous crops, and crop production practices and make changes where appropriate.** **Tillage System** selected is especially important for Cover Crop and Grown After Cover Crop enterprises.
- **Analyze Cover Crops** using the new methodology described in this manual. **Cover Crop Analysis:**
 - **Cover Crop enterprises** should have **limited labor hours** and **labor and management** allocated to them. Check allocation factors, use limited values.
 - **All land costs** should be **allocated to the Grown After Cover Crop enterprise.** No land rent, RE taxes, Long Term interest allocated to double-cropped acres (cover crop).
 - Cover crops planted for **agronomic purposes** should have **limited machinery expenses allocated** to them. Recommendation: \$30 per acre or less
 - Enter a unique **FIELD ID** to allow for tracking of cover crop enterprises over time.
 - Special situations related to cover crop enterprises **reach out** with questions. Analysis treatment can be discussed if special circumstances arise.

-
- **Government Payments**
 - Enter all gov't payments allocated to crop enterprises as **Crop Government Payments**. (*The exception is EQUIP and CSP payments for annual expenses*). Makes all payments "below the line" & are added back for COP calculations.
 - **Note:** Crop gov't payments may come from several programs. Be sure to allocate funds received by crop. Do not simply allocate the total against all crop acres.
 - **Kernza wheat** – must be marked **Established** in production year 1, since perennial crop.
 - **CSP (Conservation Stewardship Program) funds received** – split program payments between appropriate fields, including cover crop and grown after cover crop fields.
 - **Prevented Plant (PP)** – prevented plant acres should be analyzed like a normal crop.
 - PP acres need to have **crop insurance income (gross value) & crop insurance expense** values. *Do not* include only net crop insurance income with no expense.
 - **Grazing Fees:**
 - Include the cost of rented pasture in **land rent expense** for the whole farm.
 - Include a **Pasture enterprise** to **produce AUM's** grazed and land rent expense.
 - **AUM's produced** from the Pasture enterprise are **fed in the livestock analysis**.
 - **Alfalfa establishment:**
 - The **Nurse crop** (ex: oats) planted with alfalfa establishment is the **Normal** crop.
 - Alfalfa establishment acres for the year need to be designated as **Double Crop_and Establishment**. **Seed cost** must be allocated to these acres.
 - **Perennial Crops:**
 - **Establishment acres** of a perennial crop need to be **split from production acres** in the crop enterprise analysis.
 - In the year perennial crops are initially planted (year 1), they are to have the Type designation of Establishment in crop enterprise analysis data entry.
 - **Silage Crops:** Production of these crops is entered as **wet tons** (or as fed), not as a dry matter equivalent.

Livestock Enterprise Related:

- Include both **quantity** and **value** for *all* Feed Fed. This information is used for enterprise efficiency factor calculations.
- **Valuing Home Grown Feed:** value all homegrown commodities fed to livestock with their **opportunity cost** (est. avg. market value) & **not** the farm's cost of production value.
- Be sure to enter the applicable **Other Information** data requested for each livestock enterprise type. This information (like average number of head, normal total gain, and offspring production related) **drive the efficiency factors** for the enterprise.
 - **Avg no. head** – drives per head (middle) column for breeding-type enterprises.
 - **Normal total gain** – drives per head (middle) column for grow-finish type enterprises. (Gross margin value here = normal total gain entered.)
 - *Review livestock enterprise reports and correct obvious errors in feed efficiencies and other efficiency factors.*
- Dairy Specific
 - Combine Dairy and Dairy Replacements where appropriate. If these are not combined, they will not be included in the Annual Report or FINBIN database.
 - **Dairy Hauling and Trucking** –
 - **Hauling and Trucking** expenses should **only** include **milk hauling**.
 - **Marketing expense** is used for **milk marketing & cull cow marketing costs**.
 - **SCC (somatic cell count)** – enter as a whole number, **not** in thousands.
 - Ex: Enter 100,000 **not** 100.
 - Be sure to enter **Total pounds of protein sold** and **Total pounds of fat sold** on the 'Other Information' tab of the dairy enterprise. This is **not** an optional entry. This is used to calculate the **Energy Corrected Milk** value.

General Notes:

- Review and correct all **Net Worth Discrepancies**. Farms with **Net Worth Discrepancies** greater than 1% of gross revenue will be deleted from the database. Net worth discrepancies are caused by one of the following:
 - Any cash discrepancy leads to a net worth discrepancy in the same amount.
 - Any liability discrepancy leads to a net worth discrepancy in the same amount.
 - Changes to the cost value of land between the beginning and ending balance sheet.
- Complete an **enterprise analysis** for all farms possible. This includes completing livestock enterprises and minor crop enterprises whenever possible.

State Database Thresholds

Whole Farm Analysis

- Cash check discrepancy should be < 1% of gross income and < \$5,000.
- Liabilities check discrepancy should be < \$300.
- Net worth discrepancies should be <1% of gross income and <\$5,000.
- All farms, except pass-through entities, must include deferred liabilities. If a farm has negative deferred liabilities, enter zero and include a Unique Situation report to your database reviewer.
- 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. This is not optional for FBM programs.
- Personal property taxes should not be entered for Minnesota farms.
- Average Hired Labor Rate per Hour should be between \$5 and \$75.

Crop Enterprises

- Nurse crops for hay establishment (i.e. oats) should not be coded with 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. If needed limited re-establishment costs can be included on normal production hay enterprises.
- Rent expense should be > \$0 on cash rented crops. If legitimate, enter as share rental with 100% share AND delete the enterprise from the database.
- Real estate taxes should be > \$0 on owned land.
- Seed expense should be > \$0 on corn, soybeans, and other common commodity crops.
- Seed expense can be \$0 for canning crops (peas & sweet corn) when provided by company.
- Drying & Storage should=\$0 on forage & silage crops. Enter preservatives as Misc. Crop Expense.
- Hauling, Trucking & Marketing should=\$0 on forage & silage crops. Use Custom Hire if needed.
- All direct and overhead expenses should be >= \$0. Negative overhead expenses are caused by over-allocating direct expenses for labor, leases, utilities, and custom hire.

Livestock Enterprises

- Beef calves from a cow-calf enterprise should be sold at normal calf selling weight or transferred to a grow/finish enterprise. Enterprises with an average sales weight greater than 800 pounds will be deleted unless the “Cow-calf with backgrounding” special sort is selected.
- Carefully review 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.

Note – many of these items can be reviewed using the **RankEm Error Check Report**.

Section III:

COMMON ANALYSIS ERRORS TO AVOID

100% and 99% Share Rented Acres

- Enterprises with **100% and 99% share rented acres** should be **deleted by the instructor from the database**. Land rent expense should be > \$0 on cash rented crops.

Major Unpaid Resources Provided to the Farm

- If **major unpaid resources** are provided to the operation by a family member or similar choose one of the following approaches. This includes 'gifted' land rent expenses.
 - Include charge for estimated value of the inputs (ex: hired labor, custom hire, land rent, or machine lease) with offsetting personal Gifts & Inheritances income to balance cash.
 - Include a value for Accounts Payable Forgiven in Accrual Adjustments to Expenses data entry. This does not change any cash values of the analysis, but provides the correct value for enterprise allocation purposes. Below is a custom hire example.

Accrual Adj to Expenses

	Cash Expense (+)	Beg Prepaid Expense (+)	End Prepaid Expense (-)	Beg Accounts Payable (-)	End Accounts Payable (+)	Accounts Payable Forgiven (+)	Total To Be Allocated (=)
Direct Crop Expense							
Seed	21,747	23,725	18,500				26,972
Fertilizer	9,600	14,796	16,450				7,946
Crop chemicals	17,011						17,011
Crop insurance	5,822						5,822
Drying expense							
Storage							
Irrigation energy							
Packaging and supplies							
Hauling and trucking							
Consultants	1,410						1,410
Marketing	1,224						1,224
Transaction fees							
Miscellaneous	2,562						2,562
Related Operating Expense							
Interest	43,713			8,813	7,163		42,063
Fuel & oil	12,148						12,148
Repairs	6,151						6,151
Custom hire						11,500	11,500
Hired labor							

Bagging High Moisture Corn - Use the **Storage expense** category for any expenses related to bagging high moisture corn. Do not use Packaging and Supplies expense. Reasoning? This keeps all related storage expenses for corn in the same expense category.

Corn Silage, Haylage, and Other Silage Crops

- Silages should not include Storage or Crop Marketing expenses. Costs of bags, etc. are included as **Packaging and Supplies**.
- Hauling and trucking expenses for silage crops should be included as **Custom Hire** expense.

Preservatives and Inoculants used for Forages and Silages - Use the **Misc. Crop** expense category for preservative or inoculant expense the farm has for forage and silage production. Do not use the expense categories of Drying or Storage for these expenses.

Small Grain Hay – Small grain hay enterprises should the crop type of **Normal**. These acres **should not** carry the Establish crop type.

Cover Crop Expense

- **Cover Crop expense** is **no longer to be used** as a crop expense category. Any crop enterprises using the **Cover Crop expense** category will be **deleted**.
- All cover crops should be analyzed as their own enterprise and the individual inputs detailed, such as seed, chemical, etc. See the [Cover Crop Analysis portion of this manual](#) for more detailed instructions on how to analyze the use of cover crops.
- **Fertilizer expenses** are included with the **base crop enterprise**. Cover Crops should not have fertilizer expense included.
- **Income received** related to cover crop practices should be included as **Other Income** for the cover crop. Do not utilize the Government Payment income category.
- Cover Crop enterprises are to be identified as **Double Crop Acres**. Since these are double cropped acres, cover crop enterprises should not include Land Rent expense, Real Estate Tax expense, or Long Term Interest expense.

Cover Crop Agronomic – This is **no longer an acceptable crop**. All Cover Crop, Agronomic crop enterprises will be **deleted**.

Base Crops Best Practices – (for crops such as corn, soybeans, corn silage, wheat)

- **Base crops should not** be tagged as a Cover Crop in Other Crop Information data entry. These crop types may be planted following cover crops and should be tagged as **Grown After A Cover Crop**. But, by definition, these crops are not cover crops and should not be identified as such. These will be **deleted**.
- **Base crops are not** Established. These annual crops should carry the **Normal** crop type.
- Corn, Corn Silage, Wheat, and similar crops are not Double Crops. These may be planted following cover crops but will still carry the **Normal** crop type designation. The cover crop enterprise is considered the Double Crop acres.
- See the [Cover Crop Analysis portion of this manual](#) for more detailed instructions.

Organic Certification Fees – Conventional crops *should not* include organic certification fees expense. All **organic crops** should use the **organic crop type** in FINPACK. See the [Organic Analysis portion of this manual](#) for more detailed instructions.

Hay Crops

- **All Double Crop Hay** enterprises **must** also be marked as **Established**. Full production Hay stands, those established in previous years, are not double cropped with other crops.
- For hay enterprises, **seed expenses** should appear only on **establishment enterprises** and not on the full production enterprises unless there were re-establishment costs.
- Hay crops **cannot** be **cover crops** and should not be used in cover crop analysis.

Straw and Stover – The preferred method to analyze straw or stover production as a **Secondary Product** of the small grain, corn, or soybean enterprise. If analyzed as its own enterprise, the straw or stover enterprises **must** be identified as **Double Crop**. Normal crop type enterprises will be **deleted**.

Double Cropped Acres – Double cropped acres should not include the full value of **Land Rent** expense, **Real Estate Taxes**, or **Long-Term Interest** expense. This includes cover crop enterprises.

Total Normal Gain – **Total Normal Gain** entered in **Other Information** for **Livestock Grow/Finish** enterprises should be entered as **total pounds to be gained for the finishing cycle**. Enter the total pounds to be gained for the cycle, even if only a portion was gained during the analysis year. **Do Not** enter average daily gain. Efficiency factors in grow/finish type livestock enterprises are driven by total normal gain and average number of head.

Livestock Contract Grower enterprises –

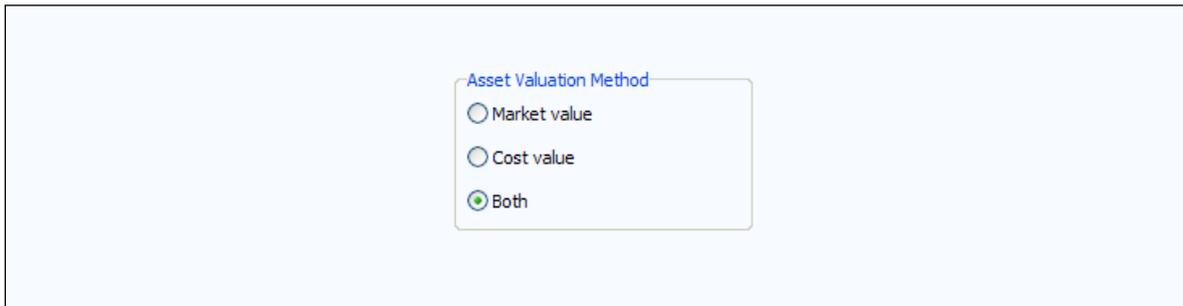
- Contract grower livestock enterprises should not include Contract Grower Expenses. Include actual expenses incurred in the actual expense category. For example, Livestock Supplies.
- Contract Grower Expense is used for enterprises entered for the Contractor (livestock owner).
- Include income received for contract livestock production as ‘Contract Income’ in the livestock enterprise analysis.
 - Previous recommendation was to add this income as a livestock transferred out value.
 - Cost of production will now be calculated correctly when utilizing contract income.

Section IV:

BALANCE SHEET INSTRUCTIONS

Entering Data in the FINPACK Balance Sheet

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, like savings, checking, CD’s (Certificates of Deposit), money market accounts, etc. Use **Detail** to make a detailed list.

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. Accumulate expenses related to planting cover crops for soil nutrient enhancement using the Cover Crop Expense category. Lime fertilizer expenses should be a prepaid expense. The expense should then be allocated to the respective field/crop for a subsequent number of crop years, per the operator’s discretion. Use **Detail** to select the expense category to help identify the total expense incurred in the FINAN enterprise analysis.

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 first row is highlighted in yellow.

Description	Expense Category (Optional)	Quantity	Value Per Unit	Value
Vitamin Premix	Purchased feed	9	438.90	3,950
Corn Gluten	Purchased feed	32	117.50	3,760
Seed	Seed			52,200
Fertilizer	Fertilizer			33,720
Chemicals	Crop chemicals			20,808

Growing Crops - Example: Winter Wheat (cost of inputs). Also, expenses related to planting cover crops for sale or feed use should be considered a growing crop. Use **Detail** to select the expense category.

Accounts Receivable - Examples: Insurance payments, money owed from others, estimated Disaster payments to be received next year, LDP'S where paperwork is done but the check is not received. 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 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 Jan. 1 & the market price is higher than the repayment rate, show the equity gain as an account receivable. Projected ARC or PLC payments should not be included until Marketing Year Price has been established.

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 other categories listed in the Current Assets section of the Balance Sheet.

Crops - Always enter the Quantity, Value/Unit and Value. Enter crops under CCC loan as normal crop inventory, valued at market value or loan rate, whichever is higher. 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 inventory is "priced" or under contract, use the contract price less estimated expenses for storage and delivery.

For year-end advances on crops sold for the following year, convert the dollars received on the advance to units of crop based on the percentage of the sale received. Reduce the grain inventory by this number of units. Price used in the calculation for determining bushels should be the underlying contract price.

Organic crops. There are no longer organic versions of crops (crop, organic). Instead, organic crops are designated by selecting the checkbox after the crop list. This designation will be seen on output. Any crop can be identified as organic. The organic designation will flow to other parts of FINPACK.

Crop	Organic	Description	Quantity	Value Per Unit	Value
Corn	<input checked="" type="checkbox"/>	contracted Feb	10,000 bu.	11.00	110,000
Corn	<input type="checkbox"/>	contracted March	8,000 bu.	6.25	50,000

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 including youngstock and replacements. 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 animal's life. 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 Market and 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 with market value and apply economic depreciation in future years. See *Entering Capital Leases on the Balance Sheet* for leased assets. Use **Detail** to enter a detailed list. **%** Use the feature to take a percent 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 changer	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 ²³	10 %
Vehicles	10 – 20 %
Office Equipment	30 %

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

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 the remaining value yet to be expensed on investments in perennial crops. Use **Detail** to enter detailed list.

Long Term Farm Assets

Farm Land - Use **Detail** to enter Acres, Value/Acre, Cost Value and Market Value. Do not change Market Value unless a significant change occurs. **DO NOT** change the **cost value** of land. This will cause a Net Worth Discrepancy.

Farm Buildings and Improvements - 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, building fixtures, or improvements* 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. Enter both the Cost and Market Value. Example: Co-op equities.

Capital Purchases and Capital Sales - Details regarding the purchase and sales of Breeding Livestock; Machinery and Equipment; Titled Vehicles; Land; Buildings and Improvements; Other Intermediate Assets and Other Long Term Assets can be recorded on the Balance Sheet. Use **Detail** to enter this information. Then, details of these transactions for the year can be selected within Capital Purchase and Sales entry in FINAN. **“Show sold assets”** checkbox is available in all intermediate and long term asset detail. Checkbox needs to be selected to display the “Year Sold” and “Sale Price” columns.

The recommended entry of traded assets can be found on page 34.

Per accounting standards, all leased assets should be valued on the balance sheet with an offsetting lease liability. The recommended entry of leased assets is found on the next page and the end of this section.

Detail: Machinery and equipment

Show sold assets

Description	Model Year	VIN / Serial No.	Year Purchased	Purchase Price	Percent Ownership	Cost Value	Market Value	Year Sold	Sale Price
ROUND BALE RACK	2006		2006		100.00	905	2,932		
WAGON	2006		2006		100.00	1,144	7,331		
10X61 AUGER	2006		2006		100.00	1,499	3,665	2017	2,000
Wagon	2006		2006		100.00	1,200	7,331		
12 Ton Gear	2007		2007		100.00	645	1,466		
Chopper	2007		2007		100.00	5,054	14,661	2017	10,000
Hay Buster (33%)	2007		2007		100.00	2,209	4,398		
Hay Buster	2007		2007		100.00	3,609	14,661		
Silage Bagger	2005		2008		100.00	5,811	10,996	2018	6,000
Used Semi	2004		2008		100.00	4,843	9,530		
Semi Grain Trailer	2004		2008		100.00	3,875	8,797		
Jaylor Mixer	2006		2006		100.00	8,717	10,400	2016	10,385
JD 8110	2004		2009		100.00	47,830	73,306		
Spl. Row Planter-Trd '16	2010		2010		100.00	35,000	41,000	2016	41,039
JD 9670 STS	2010		2011		100.00	111,995	187,336		
JD 612C Corn Head	2009		2011		100.00	22,882	46,264		
Parker Grain Cart	2012		2012		100.00	10,359	14,289		
JD Loader	2012		2012		100.00	5,979	8,247		
JD 726 Mulch Finisher	2008		2012		100.00	20,417	28,162	2018	18,000
Tractor	2008		2012		100.00	107,916	149,129		
JD 332E Skidloader	2013		2013		100.00	35,164	43,653		
Westfield Auger	2013		2013		100.00	15,484	20,234		
Loftness Stalk Chopper	2013		2015		100.00	15,795	17,599		
Meyer 8865 Manure Sprdr	2012		2015		100.00	22,275	24,819		
JD Top Air Sprayer	2013		2016	56,700	100.00	56,700	59,850		
JD Planter	2014		2016	146,000	100.00	131,400	132,979		
Patz TMR Mixer	2016		2016	28,350	100.00	28,350	29,925		

Personal Assets

Personal Assets – these should be detailed as well. Enter the personal house in this category.

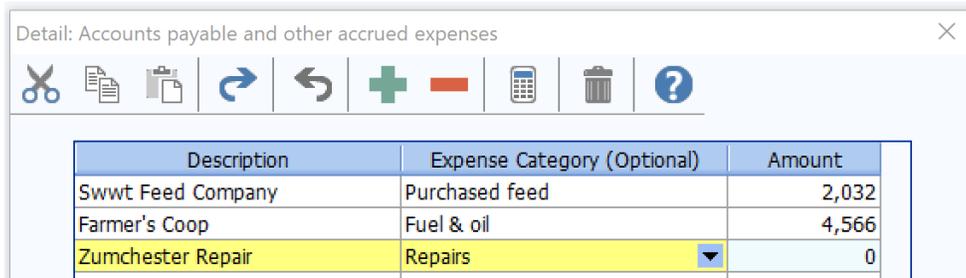
Equity

Contributed Capital – enter any applicable contributed capital in this area. Use detail as needed.

LIABILITIES

Current Farm Liabilities

Farm Accounts Payable and Other Accrued Expenses - 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
Swwt Feed Company	Purchased feed	2,032
Farmer's Coop	Fuel & oil	4,566
Zumchester Repair	Repairs	0

Current Farm 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 balance as Current Loan here. If not, include in Accounts Payable.

Intermediate Farm Liabilities

Intermediate Farm Loans - 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 set-aside payments should be listed as separate loans without accrued interest or payments, 0% interest.)

Farm Leases – Both *Finance* and *Operating* leases with terms greater than 12 months are now to be reported on the balance sheet per FASB and FFSC Accounting Standards. This includes all leases, with limited exceptions. The main exception in agriculture is land rental arrangements. These can be treated as operating expense rather than balance sheet assets. For more information see z.umn.edu/leases.

Entering Finance and Capital Leases on the Balance Sheet:

- 1) Report the asset value in the appropriate asset category and depreciate on cost balance sheet as discussed in 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 Farm Liabilities

Long-Term Farm Liabilities - List loans with 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 set-aside payments should be listed as separate loans without accrued interest, or payments, 0% interest.)

Personal Liabilities

Income and self-employment taxes payable should be estimated and included as personal income taxes payable. Be sure to enter on both beginning and ending Balance Sheets. List credit cards as accounts payable if they are not included as cash outflows in FINAN.

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.

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 must be included for all farms except “pass-through entities,” LLCs and S Corporations for which income is passed through to owner for tax purposes. Use the detail feature to calculate deferred liabilities on the Market Balance Sheet.

	Amount
Deferred taxes on current inventories	349705 ...
Deferred liabilities on capital assets	123,748
Total	473,453

Deferred Liabilities include:

- 1) Taxes due on **current inventories** (grain, market livestock, etc.) include both income and self-employment taxes. Enter the cost basis of purchased feeder as well as the amount of CCC loans treated as income and already taxed.

Detail: Deferred taxes on current inventories

Market value of current inventories		1,436,439
Payables and accrued expenses	(-)	
Purchase cost of feeder livestock	(-)	407,896
Government crop loans already taxed	(-)	
NOL carryovers and other adjustments	(-)	
Taxable current inventory value	(=)	1,028,543
Estimated marginal tax rate (%)	(*)	34.00
Deferred taxes on current inventories	(=)	349,705

Close

- 2) Taxes due on gain from **capital assets** sold (land, stock, machinery, etc.) includes capital gains tax calculated on the difference between market value and 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.

Detail: Deferred liabilities on capital assets

	Market Value	Tax Basis	Selling Cost %	Estimated Gains
Breeding livestock		0		
Machinery and equipment	1,099,984	725,975		374,010
Titled vehicles	112,159	81,945		30,214
Other intermediate assets				
Land	1,258,300	1,225,800		32,500
Buildings and improvements	514,278	361,726		152,552
Other long term assets	2,401	2,401		
Stocks and bonds				
Retirement accounts	10,000	10,000		
Personal business investment				
Personal real estate	115,000	115,000		
Other personal long term assets				
Total taxable capital gains				589,277
Estimated marginal tax rate (%)		(*)		21.00
Total deferred taxes on capital assets		(=)		123,748
Total selling costs		(+)		0
Total deferred liabilities on capital assets		(=)		123,748

Close

- 4) The chart on the following pages should be used in determining the appropriate tax rate.

Approximate Average Deferred Tax Rates

MINNESOTA

Average Deferred Tax Rate on

Total Deferred Income	Current Deferred Income	Non-Current Deferred Income
	<i>Federal^a and State</i>	<i>Federal^b and State</i>
\$15,000	15%	0%
\$20,000	15%	0%
\$30,000	15%	0%
\$40,000	17%	0%
\$50,000	20%	1%
\$60,000	21%	2%
\$70,000	22%	2%
\$80,000	23%	3%
\$90,000	24%	6%
\$100,000	25%	7%
\$110,000	26%	9%
\$120,000	26%	10%
\$140,000	26%	11%
\$160,000	26%	13%
\$180,000	26%	14%
\$200,000	26%	15%
\$250,000	26%	16%
\$300,000	26%	17%
\$350,000	27%	18%
\$400,000	35%	19%
\$450,000	35%	20%
\$500,000	35%	21%
\$1,000,000	41%	25%
\$2,000,000 and over	44%	28%

a. Includes Federal Income Tax, Social Security Tax and State Income Tax.

b. Excludes Social Security Tax.

Approximate Average Deferred Tax Rates

NORTH DAKOTA

Average Deferred Tax Rate on

Total Deferred Income	Current Deferred Income	Non-Current Deferred Income
	<i>Federal^a and State</i>	<i>Federal^b and State</i>
\$15,000	15%	0%
\$20,000	15%	0%
\$30,000	15%	0%
\$40,000	17%	0%
\$50,000	18%	0%
\$60,000	20%	0%
\$70,000	20%	0%
\$80,000	21%	1%
\$90,000	22%	2%
\$100,000	22%	4%
\$110,000	22%	5%
\$120,000	22%	6%
\$140,000	22%	7%
\$160,000	22%	8%
\$180,000	22%	9%
\$200,000	22%	10%
\$250,000	22%	11%
\$300,000	22%	12%
\$350,000	22%	13%
\$400,000	29%	13%
\$450,000	29%	13%
\$500,000	30%	14%
\$1,000,000	34%	18%
\$2,000,000 and over	37%	20%

a. Includes Federal Income Tax, Social Security Tax and State Income Tax.

b. Excludes Social Security Tax.

Entering Leases on the Balance Sheet

There are two types of leases: 1) **Operating leases**, which generally have a shorter life than the asset being leased, and 2) **Finance leases**, sometimes called capital leases, which often span a substantial part of the life of the asset. In agriculture, land rental arrangements are the most common type of operating lease. While accounting standards suggest that some operating leases should be listed on the balance sheet, the [Farm Financial Standards Council's \(FFSC\) Financial Guidelines for Agriculture](#) recommend that land leases be treated as operating expenses rather than balance sheet assets.

Our accounting friends give us no such break on finance leases. A finance lease is often used as a direct substitute for purchasing and financing the asset with borrowed money. Therefore, they should be included on the Balance Sheet according to current accounting guidelines. The major criteria for determining if a lease is a finance lease are:

- 1) *The lease transfers ownership of the property to the lessee at the end of the lease term, or*
- 2) *The lessee has an option to purchase the asset that is reasonably certain to be executed, or*
- 3) *The lease term covers the major part of the remaining economic life of the asset.*

Refer to Appendix G of the Financial Guidelines for Agriculture for more information on finance lease criteria.

Once it is decided to place a leased asset¹ on the balance sheet, the question becomes how to value the lease and how to determine the lease liability. The asset value should be the present value of the stream of lease payments. The lease liability is determined by amortizing the lease at the stated interest rate. If an interest rate is not stated in the contract, it is suggested that the current rate for traditional loans for similar assets types be used. Sounds complicated? Fortunately, the FINPACK Loan Calculator can make it easy (or at least easier).

Example

This is the same example illustrated in the Farm Financial Standards Guidelines except we have converted it to January 1 payments for simplicity.

- 5 annual payments of \$11,991 with the first payment paid in advance;
- Interest rate of 10%
- Lease commences on January 1, 2022

¹ The *Financial Guidelines for Agriculture* uses the term “Right of Use Asset” for leased assets entered on the balance sheet.

Asset Valuation

Use the loan calculator  to find the present value of the 4 remaining payments:

- First payment date: December 31, 2022
- Payment frequency: Annual
- Loan Period: 4 years
- Scheduled Payment \$11,991
- Solve for the present value by clicking  on Amount Borrowed. The present value of the future payments is \$38,009.

New or Existing Loan?	<input checked="" type="radio"/> New	<input type="radio"/> Existing
First Payment Date	12/31/2022	
Payment Frequency	Annual	
Loan Period in Years	4	
Amount Borrowed	38,009.86	=
Interest Rate	10.000	
Scheduled Payment	11,991.00	
Annual Payment	11,991.00	

Figure 1: FINPACK Loan Calculator Amortization

The final step is to add the initial payment. The initial balance sheet value of the leased asset is \$11,991 plus \$38,009 = \$50,000.

Description	Model Year	VIN / Serial No.	Year Purchased	Purchase Price	Percent Ownership	Cost Value	Market Value
Other machinery - 2015					100.00	22,439	29,099
Other machinery					100.00	25,243	31,001
Wagon (used at auction)			2014		100.00	5,049	6,548
Skid steer	2014	USE-326E	2016	38,900	100.00	24,246	31,443
Combine					100.00	119,814	132,849
Tractor	2012		2013		100.00	59,787	73,658
Old listing					100.00	154,513	224,283
Planter	2012	Kinze	2017	84,995	100.00	55,765	72,288
John Deere 569	16		2018	41,000	100.00	29,889	37,800
Tractor 4WD	2017		2020	252,500	100.00	252,500	252,500
Tractor Lease	2020		2021	50,000	100.00	50,000	50,000

Figure 2: FINPACK Balance Sheet Machinery Detail List

The recommendation is to amortize or depreciate this value using a straightline approach over the term of the lease. The important thing is that the asset value should be zero at the end of the lease.

Lease Liability

The initial lease liability is the present value of the remaining payments, \$38,009 from the previous loan calculator example.

Lender	Description	Interest Rate	Principal Balance	Accrued Interest	Annual P & I Payment	Month Due	Final Year	Principal Due in 12 Months	Intern. Balance
Fifth National Bank	Machinery	4.50	39,340	2,357	16,348	3	2023	12,767	26,573
Ford Credit	Truck	4.25	6,683		6,841	1	2021	6,683	
Fifth National Bank	Oper Refi	6.00	38,411	3,069	20,688	3	2022	16,070	22,341
Fifth National Bank	Tractor 4WD	3.25	202,000	8,202	32,784	10	2027	19,035	182,965
Hometown Implement	Tractr Lease	10.00	38,009	...	11,991 ...	12 ...	2026	8,137	29,872

Figure 3: FINPACK Balance Sheet Intermediate Liabilities Data Entry

It may be helpful to print the Payment Schedule from the loan calculator to determine the principal, interest expense, and the principal balance after each lease payment. Alternatively, the loan calculator can be used each year to calculate the present value of the remaining payments.

Payment Schedule				
Date	Payment	Principal Portion	Interest Portion	PrincipalBalance
12/31/2022	11,991.00	8,137.22	3,853.78	29,872.64
12/31/2023	11,991.00	8,962.25	3,028.75	20,910.39
12/31/2024	11,991.00	9,870.92	2,120.08	11,039.47
12/31/2025	12,158.75	11,039.47	1,119.28	0.00

Figure 4: FINPACK Loan Calculator Payment Schedule

Financial Analysis and Cash Flow

Once entered on the balance sheet, it is important not to double count the lease expense. For finance leases, depreciation and interest are the only expenses related to the lease. However, producers are very likely to erroneously include lease payments in operating expenses. Financial lease payments are not expenses and should not be entered as such when completing a financial analysis (Schedule F Cash to Accrual or FINAN) or a cash flow projection. Depreciation expense is calculated based on the change in the asset value. Interest expense needs to be manually added if the producer's records do not include this amount. Interest expense can be taken from the repayment schedule or, if not available, the interest portion of the payment can be calculated based on the principal reduction. For example, for year 1 of this example:

$$\begin{array}{rcl}
 \text{Total lease payment} & - & \text{Principal payment} & = & \text{Interest expense} \\
 \$11,991 & - & (\$38,009 - \$29,872) & = & \$3,854
 \end{array}$$

The Financial Guidelines for Agriculture are published by the Farm Financial Standards Council and can be accessed at <https://ffsc.org/>.

Section V:

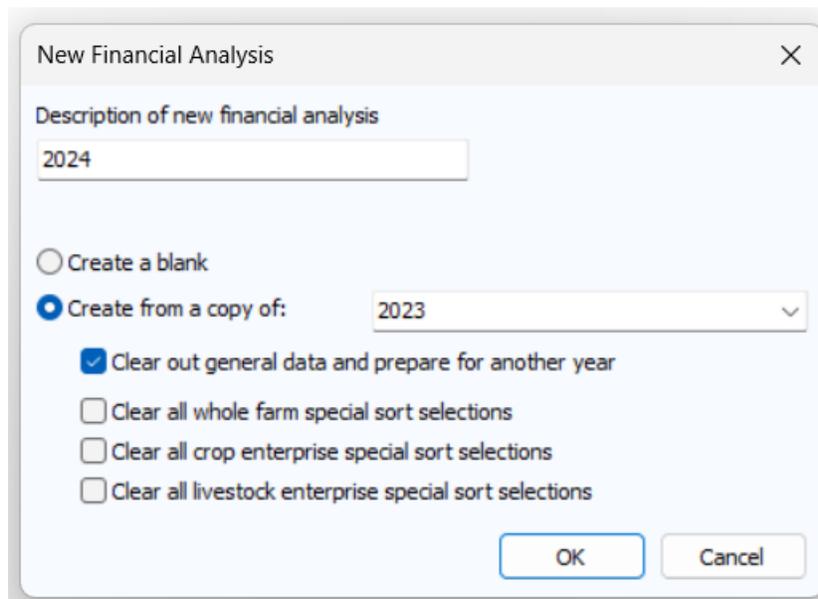
FINAN (FINANCIAL ANALYSIS) INSTRUCTIONS

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, bolded black numbers indicate detail.

Data File Name – Use a unique file name. Remember, when a member of the database review team calls with a data problem you need to be able to identify the farm by this name.



The analysis name must be entered here. Recommendation: 2xxx Analysis It can be changed later.

If possible, copy a previous year’s analysis. When copying a previous analysis, it is suggested to check “Clear out general data and prepare for another year.” Additionally, **determine if special sort selections for whole farm, crop, and livestock enterprises should be removed.**

During the copying process, clearing the general data will delete all data 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 remains.

General Information

Year of analysis	2022
Beginning balance sheet	January 1, 2021
Ending balance sheet	January 1, 2022
Cash flow plan for comparison (optional)	

Enterprise Analysis (optional)

Crop

Livestock

Market Channel

Value Added / Nonfarm

Show group summary information

Analysis complete, include in Portfolio Risk Analyst

- 1) Enter analysis year. Select the beginning and ending balance sheet for the analysis year.
- 2) Select Enterprise Analysis types to include.
 - a. Options include: Crop, Livestock, Market Channel, and Value Added/Nonfarm.
 - b. Only those enterprise types selected here will be available for related operating expense allocation purposes and enterprise analysis data entry.
- 3) Check "Show group summary information"
- 4) When you have completed the analysis, check "Analysis complete, include in RankEm."

Summary Information

- 1) Select proper type of business organization.
- 2) Enter the producer's unique Farm ID. Once established, the ID for a specific farm should not be changed. *Exception:* When the next generation takes over an existing farm and the senior generation mostly exits management of the farm, a new farm ID should be assigned. If you do not know the correct ID system for your location, contact your database leader.
- 3) State and County - Enter State and County name from pick lists.
- 4) An operator is generally defined as one family relying on the farm for family income and receives income in the form of farm earnings or owner wages (for corporations). A spousal unit are generally considered one operator. Additional family members or partners are operators if they are not paid as hired labor. It is possible to enter decimals for *part-time operators* but unless the producer spends less than 50% of their time on the farm, there should be at least one operator.
- 5) All data is required by RankEm. Be sure to enter Acres Owned, Number of Operators to the tenth, and All Operators' Year of Birth and Years Farming.

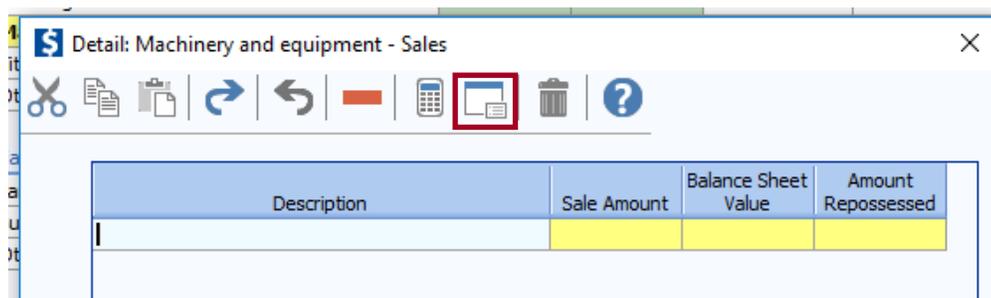
Type of business	Sole proprietor	▼
Farm ID		12345678
State	Minnesota	▼
County	Goodhue	▼
Total acres owned		98
Number of operators		1
Operator number 1		
Year born		1962
Year started farming		1983
Operator number 2		
Year born		0
Year started farming		0
Operator number 3		
Year born		0
Year started farming		0
Operator number 4		
Year born		0
Year started farming		0
Operator number 5		
Year born		0
Year started farming		0
Special sorts	None	...
Analyst Name	I. M. Analyst	
Summary Group	MN State College & University Red River Valley	▼

- 6) Special Sorts: Whole farm special sorts should reflect the **Primary Operator** in the analysis. Identify organic farms, farms in organic transition, specialty crop farms, and those that are MN Water Quality Certified.
- 7) Analyst Name: Enter your name as the FINPACK user who prepared this analysis. Be consistent in the name you use. Analyst Name is displayed in RankEm to identify the analyst if questions or outliers exist that need correction. Analyst name is deleted before data is uploaded to FINBIN.
- 8) Summary Group: Select the regional report group for this farm, MN State College & University North, South, Red River Valley, or Southwest Minnesota Farm Business Management Association.

WHOLE FARM DATA ENTRY

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 Balance Sheet Value of asset sold. With this, FINAN will calculate the gain or loss on the sale. Use “Select from Balance Sheet Items” icon on toolbar in Sales and Purchase detail. This allows you to bring purchases and sales entered on Balance Sheet into FINAN from all farm capital asset categories.



To select items from the Balance Sheet to include in FINAN, the user must be in the correct capital asset cell in the table to bring in purchases or sales of that asset type. By checking “**Include**”, the assets will automatically be brought into detailed entry.

Include	Make / Model	Model Year	VIN / Serial No.	Percent Ownership	Market Value	Year Sold	Sale Price
<input checked="" type="checkbox"/>	Sprayer			100.00	20,000	2016	20,226
<input checked="" type="checkbox"/>	Jaylor Mixer	2006		100.00	10,400	2016	10,385
<input checked="" type="checkbox"/>	Spl. Row Planter-Trd '16	2010		100.00	41,000	2016	41,039

By checking “Include” and pressing the “Close” button, the assets are brought into detailed entry.

- 3) Enter any **assets repossessed** under Capital Sales detail.
- 4) **Breeding Livestock** – Be careful that you do not double count capital sales. Enter sales here or in 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 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) **Buildings and Improvements** – Include Buildings, Building Fixtures, Tile, and other Land Improvements.
- 7) **Other Long-Term Assets** – Include Patronage, stock redemption, or retirement as a sale.
- 8) **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.
- 9) **Recommended procedure for trade-ins**
 - a) The capital purchase will equal cash (boot) paid plus the sale value received for asset traded. This value entered as the cost value of newly acquired asset on the Balance Sheet.
 - b) The sale amount entered on the Balance Sheet and in FINAN will equal the value received for the traded asset from the dealership or other purchaser.
 - c) In FINAN, the amount entered as the “balance sheet value” is the cost value of the traded asset. If using “Select from Balance Sheet items” feature, FINPACK will automatically enter the cost value coming from the balance sheet for the traded asset.

-
- d) Market value of the newly acquired asset equals the estimated current market value.
 - e) If sales details are entered on Balance Sheet for traded asset, the item can remain on the balance sheet. Entering sales this way removes traded/sold item from printed asset list & the value of traded/sold asset is removed from total cost and market value of asset group.

10) Recommended procedure for property insurance indemnity claims – total loss situations:

- On the Balance Sheet
 - The “totaled” asset is marked as sold on balance sheet, thus removing the value. Enter Year Sold/Traded and Sale Price in detailed entry for the capital asset lost. The Sale Price entered equals the insurance indemnity amount received.
- In the Financial Analysis (FINAN)
 - The insurance indemnity payment received is entered as a capital sale for the appropriate asset category in FINAN. Insurance funds received are entered as the Sale Amount. The cost value of the asset is entered as the Balance Sheet Value in capital sale detailed entry. (Use ‘Select from Balance Sheet’ wizard in FINAN to bring these details entered on the balance sheet into capital sales data entry.)
- If a replacement asset is purchased, this new asset is entered on the balance sheet and in FINAN like any other asset purchase.
- If a “totaled out” asset is repurchased enter as explained above. The repurchased asset is entered on the balance sheet as a newly purchased asset.

11) Recommended procedure for property insurance indemnity claims – partial loss situations:

- On the Balance Sheet
 - The damaged property’s cost value should be reduced by the amount of the insurance indemnity received. Presumably, the market valuation will be reduced similarly. **Note** – using the “sales” feature on the balance sheet will not work in this case, as including a year sold/traded and a sales value will remove the entire asset value from the balance sheet.
 - If improvements were made to fix the damaged asset, include these as a capital purchase on the balance sheet. Enter the improvement amount on its own line, with purchase price and cost valuation being equal (before annual depreciation). The improvement’s market value will presumably be valued similarly.
- In the Financial Analysis (FINAN)
 - The property insurance indemnity received for the partial loss is to be entered as a building and improvement (or appropriate asset category) capital sale.
 - A capital purchase is entered for the dollar value of improvements made.

-
- 12) **Lump sum easement payments** (including those for pipelines, wind turbines, and conservation easements) – treat the lump sum payment received for easements of any kind as a capital sale on the impacted parcel. This sale will reduce the cost value of the parcel and may or may not impact the market value.

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 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:

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

CROP SALES:

Enter per crop; gross quantity of crop sold, & gross income received. Enter gross proceeds here and enter expenses deducted from the sale as farm expenses. **Exception:** *Do not enter a quantity for sugar beets.* For organic crops, select the 'Organic' checkbox next to the selected crop to indicate the crop is organic.

Include gross sales of crops that were under CCC loan. Do not include money borrowed on CCC loans and treated as income for tax purposes. Include the funds received for yearend grain advances as a grain sale in the year received. Sale quantities equate to the number of units the balance sheet inventory was reduced by. All year-end grain advances should be treated as a crop sale and not as other income. Price used in the calculation for determining bushels should be the underlying contract price.

LIVESTOCK SALES:

Animal Sales – Enter number sold, total live weight pounds sold, and gross income received of market livestock. Enter gross proceeds here and enter expenses deducted from the sale as farm expenses. Record Cull Livestock in Cull Livestock section, not here. (Weights should be entered on a live weight

basis. If sold on carcass weight and the yield is unknown, convert live weight based on a 75% yield for pigs and 63% yield for cattle.)

For livestock sold on ledger contracts, increase, or decrease cash sales by the change in 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 FARM INCOME:

Miscellaneous Crop Income – Enter any miscellaneous crop income. At this time, include carbon related payment income from *non-government sources* (like Indigo Ag) as miscellaneous crop income.

Cull Breeding Stock – Enter income received from Cull Breeding Stock sales. 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.

CCC Market Loan Gain – Include all LDP payments and CCC loan market gains received during Analysis Year. (LDP & Market Loan Gain income accounts have now been combined.)

Crop Government Payments – ARC and PLC payments present a special problem because the payment amount isn't known until marketing year end. This uncertainty makes it difficult or even impossible to accurately match income to production year. Therefore, ARC/PLC payments should be recognized as income in year received rather than estimating the amount accrued to each production year.

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

Livestock Government Payments – Include dairy DMC & MN DAIRI 2.0 payments as well as other livestock related payments. Include ELAP, LFP, LIP, PMVAP, ELRP Phase 2, ODMAP, and MLP payments received in 2023. For more details, see the [What's New section](#) of this manual.

Conservation Government Payment – Enter government payments related to conservation efforts. SHIPP, EQIP, CSP, and other cost share program payments entered here are for annual payments related to conservation production practices. Also enter PCCP (Pandemic Cover Crop Program) payments received in 2022 here. [See below for more details on EQIP and other cost-share payments.](#)

Other Government Payments – Enter any other government payments, such as disaster payments, and payments from these 2023 programs: IRA Section 22006 and Section 22007, ERP Phase 2, PARP, CFAP 2 for underserved producers, & FSCSC. For more details, see [What's New section](#) of this manual.

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

Contract Livestock Income – Enter all cash income received for contract livestock production services. Then complete a Livestock Enterprise analysis for the contract grower production. Enter income information in detailed entry here to select this information in the applicable livestock analysis.

Renewable Energy Income – Enter all renewable energy related income for the farm like solar and wind.

Farm Rental Income – Enter all rental income received by the farm.

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

Livestock Insurance Income – Enter LGM, LRP, and DRP payments here. Also enter any business interruption insurance proceeds received as Livestock Insurance Income.

Cash Withdrawn from Hedging Accounts – Enter all cash withdrawn from hedging accounts. See the special note on hedging transactions below.

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

- Property Insurance income has been removed. Enter small insurance indemnity payments received (**\$20,000 or less**) as Other Farm Income. [Proper handling of Property Insurance claims](#) involving capital assets is detailed on pages 37 and 38.

Special Note for EQIP, MN AGRI (Agricultural Growth, Research, and Innovation) Livestock Investment Grants & Other Cost-Share Payments: Proper methodology depends on use of funds.

- Funds used for capital investments (i.e. depreciable, multi-year assets) – Treat the cost-share income as a capital sale and use the funds to purchase the capital asset. This is the preferred approach for cost-share funding for feedlots and other large capital purchases. This minimizes the distortion of net farm income and enterprise profitability. On the ending balance sheet, the asset's cost value should reflect the total purchase less the government cost-share payment, less the annual depreciation. The market value will reflect the full asset value. This balances cash flow but will exclude the cost share payment from net farm income without distorting depreciation.

Example: Total cost of feedlot is \$100,000, EQIP cost-share is \$48,000. Enter \$100,000 capital purchase (buildings and improvements) and \$48,000 capital sale. Ending balance sheet cost value is \$49,400 ($\$100,000 - \$48,000 = \$52,000 * 95\%$ to depreciate over 20 years). The market value is the estimated amount the addition of the feedlot increased the property's market value.

-
- Funds received as reimbursement for annual conservation related expenses – Treat cost-share funds received as income in the whole farm analysis. The funds received offset operating expenses for particular enterprises. Specifically, these payments should be entered as Conservation government payments in the Other Farm Income area. Allocate the payment to the appropriate enterprise(s), including the payments as Other Income for crop enterprises and Government Payment Income for livestock enterprises.

FARM EXPENSES:

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

- If an expense is negative due to refunds, etc., submit a Unique Situation report to your database review with justification. Farms with unexplained negative whole farm expenses will be deleted.
- If major unpaid resources are provided to the operation by a family member, it is recommended to include a charge for the estimated value of those resources (hired labor, custom hire, machine lease, land rent for ex.) with an offsetting personal income entry to balance cash. Or include a value for Accounts Payable Forgiven for a particular expense (found in Accrual Adjustments to Expenses data entry). ([See page 17 for more information.](#))
- If expenses were deducted from sales of grain, livestock, or livestock products, include the gross sales as income and include all expenses for trucking, commission association dues, and marketing fees here.

Specific expense categories:

- Seed treatments: include in Seed expense
- Free seed, chemicals, etc.: enter the value received as Seed/Chemical/etc. expense, with offsetting Other Farm Income
- Fertilizer and chemical application: include as Custom Hire expense
- Micronutrients and biologicals used for crops: include as Fertilizer expense
- Soil testing and grid sampling: include as Fertilizer expense
- Organic Crop Protection: replaces Non-chemical crop protection expense
- Employee benefits: include as Hired Labor expense
- Worker's Compensation Insurance: include as Hired Labor expense
- Silage bags for Silage Crops: include as **Packaging and Supplies** expense

-
- Silage bags for High Moisture Corn: include as **Storage** expense
 - Precision farming expenses: if they do not fit elsewhere, include as Misc. Crop Expense
 - CSP related expenses: enter in the appropriate expense category. **Soil testing** and **grid sampling** should be included in **fertilizer**. **Cover crops** are analyzed as their own enterprise and should include all cover crop related expenses in the applicable expense category – seed, chemical, etc.
 - DHIA: DHIA is in the expense chart of accounts if you have the FINPACK set up files installed.
 - Cash salaries, wages, and benefits to operators: Enter in Owner Wages and Benefits expense and reduce Value of Operator Labor and Management
 - Feed additives and supplements: include as Purchased Feed expense
 - Livestock implants: include as Veterinary expense
 - Livestock rendering: include as Custom Hire expense
 - Manure handling: include as Custom Hire expense, if hired
 - Hoof trimming – include as Custom Hire expense
 - Milk hauling – include as Trucking and Hauling expense. For the **dairy enterprise analysis**, trucking and hauling expense should only include milk hauling expenses.
 - Milk marketing, cull cow hauling, cull cow marketing – include as Marketing expense
 - Truck Expenses –
 - **Farm trucks** – split out expenses related to repairs, fuel, and vehicle tabs (included these as a misc. expense) accordingly, if possible. If this is not possible, use judgement and include the farm truck expenses as repair or miscellaneous expenses.
 - **Semi/Grain trucks** – fuel, repairs, etc. are considered Hauling & Trucking expenses.
 - **Non-farm/over the road trucking** – income and expenses related to non-farm trucking operations should not be included in the farm analysis. These are personal business income & expenses. If desired, include a **Value-Added** enterprise.

Purchased Feed – Use detailed entry 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

Description	Type of Feed (Optional)	Quantity	Value
Corn - Dairy	Corn	5,343 bu.	17,365
PVM - Dairy	Protein Vit Minerals	204 ton	32,256
Total			49,621

Close

Interest – Use Detail to list interest paid on individual loans. This will automatically transfer to the interest breakdown on the enterprise analysis based on the loan’s balance sheet entry.

Detail: Interest

Loan	Description	Amount
Accounts Payable		
Fifth National Bank	Operating	1,975
Fifth National Bank	Barn	6,817
Fifth National Bank	Cattle	6,866
Fifth National Bank	SW 80 Ac	12,910
Fifth National Bank	New 80 Ac	18,713
John Deere Credit	332E	2,122
Fifth National Bank	Mach.	455
Total		49,858

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 and instructor to decide whether these transactions result in farm (or non-farm) income. Treatment should be consistent from year to year and consistent with treatment of the business investment on the balance sheet. Payments received 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 investment profitability.

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 12 + beginning balance sheet value (Box 10) – ending balance sheet value (Box 11). If the result is positive, enter as cash withdrawn from hedging accounts and if negative, enter as hedging account deposits.

Special note on Ditch/Tile Assessments: Landowners may receive a ditch assessment as part of their real estate taxes. These costs are the result of county or judicial ditch project costs completed. These assessments should be removed from the Real Estate Tax expense annually and entered as a Building and Improvement purchase. The Building and Improvement capital purchase would be entered on both the Balance Sheet and financial analysis (FINAN).

PERSONAL INCOME:

Enter all cash **non-farm** income received during the analysis period. If personal business income, enter the net value. If desired used detailed entry to list gross business revenues and the appropriate expenses to arrive at the net value.

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 or input expense and offset the purchase by also entering the value here.

Family Living Expense – Enter cash family living expenses including personal share of utilities, insurance, real estate taxes, and any other 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 family living expenses. **For partnerships, use detailed family expenses or enter the 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 RankEm Summary reports the estimated value of labor and management is always combined with Owner Wages and Benefits to make farms of different ownership structure comparable.

For sole proprietors and partnerships, the recommended rate is: **\$30,000**/full time operator plus 5% of value of farm production. This is a guideline only; adjust for very small or very large farms.

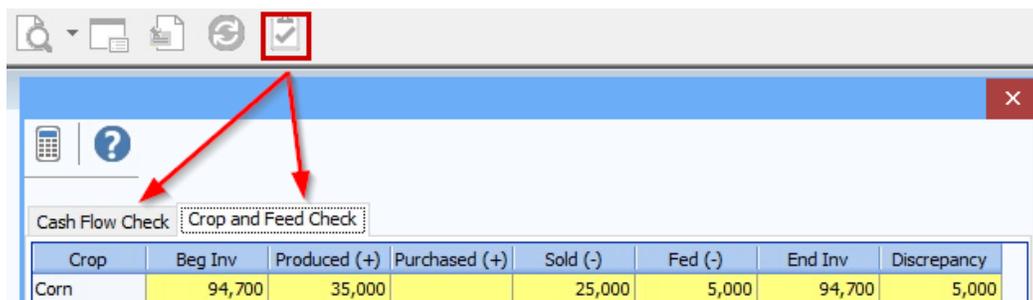
Formula: $\$30,000 + 5\%$ (Value of Farm Production).

Other adjustments:

- For entities, if owner compensation is included in Owner Wages and Benefits expense, enter zero OR, if the amount included is abnormally low or high, make an adjusting entry here to bring the total value of Owner Labor and Management in line with other farms.
- 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.

VIEW CASH FLOW CHECK AND CROP & FEED CHECK:

At any time, click the check-mark icon  on the toolbar to view the cash flow check or the crop and feed check. The dialogue box that appears has two tabs, providing the ability to look at either check.



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. These suggestions assume only on-farm work. Adjust if operators are employed off the farm as well.

* **Note** – this section is noted as Optional. Labor hours are **NOT** optional in an FBM FINAN.

Adjust for part-time situations as needed. Remember to include the spouse and other family members' labor hours. Also, consider the allocation between crop and livestock enterprises when reviewing labor hours for accuracy. For entities, if Owner Wages and Benefits expense is included, include owner/operator hours in Full Time Hourly Labor. (This input is critical to the hours of work listed on the analysis in each individual enterprise.)

For dairy operations – 1 FTE is typically about 2400 hours. A guide to reviewing accuracy is 1.2 million pounds of milk are typically produced per FTE or there are typically about 50 cows per FTE.

Farm labor types include **Unpaid operator and family labor**, **Salaried and Management**, **Full time hourly** (previously full time hired labor), and **Seasonal hourly** (previously other hired labor).

Use detailed data entry for any of labor hour category for assistance with estimating labor hours.

	Days	Hours Per Day	Monthly Total
January	3		
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
Total			

ACCRUAL ADJUSTMENTS TO RELATED OPERATING EXPENSES:

This section adjusts the cash expenses to arrive at the amount actually incurred for the analysis year. Recommendation: Enter detailed expense categories for prepaid expenses, growing crops, accounts payable, and accrued interest on 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.

$$\text{Cash Interest Paid} + \text{Ending Accrued Interest} - \text{Beginning Accrued Interest} = \text{Interest on Debt.}$$

Interest on Debt needs to be allocated to operating, intermediate and long term.

RELATED OPERATING EXPENSE ALLOCATIONS:

Enter the proportion of the total for each allocated expense to the appropriate enterprise analysis activated in the analysis, including crop, livestock, market channel and value added 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 100% share arrangement with the renter paying 100% of expenses. **Delete** this enterprise before submitting.

CROP ENTERPRISE ANALYSIS

Helpful Crop Definitions for Crop Enterprise Analysis:

Cover Crop – a crop seeded in the fall to cover the soil over winter and provide agronomic benefits. The purpose of the fall seeded crop drives the definition. Fall seeded crops planted for production purposes (winter wheat, winter rye) are not considered cover crops.

Base Crop – the crop planted **following** a cover crop.

Nurse Crop – a spring planted crop that **protects** a more vulnerable crop as it emerges. Example: nurse crops are often planted with alfalfa hay and sugar beets. Nurse crops are not considered cover crops.

Handling Special Production Situations in Crop Enterprise Analysis

Cover Crop Analysis

- Always analyze the cover crop as its own crop enterprise. The cash crop/base crop and cover crop are analyzed separately, in separate enterprises. The base crop is planted following cover crop termination/harvest.
- The Cover Crop is the Double Crop type. Acres and tenure type must match for the cover crop and base crop/cash crop that are being combined and analyzed together. The Cover Crop enterprise should not include Land Rent, Real Estate Taxes, or Long Term Interest expense.
- Cover crops are analyzed in the year when production is complete.
 - Accumulate expenses related to fall seeding as Growing Crop or Prepaid Expense on the ending balance sheet for that year.
 - Analyze the cover crop in the following year's analysis, when production is complete, whether the cover crop is harvested, grazed, or simply terminated.
 - Use the related Crop type for the analysis. For cover crops this will be the individual crop type if a single species is planted. If a cover crop mix is planted, utilize the best fit between **cover crop grazing (AUM)**, **cover crop mix (\$)**, or **cover crop rye mix (\$)**.
 - **Note:** Cover Crop Agronomic - not an acceptable crop type and will be **deleted**.
- Many cover crop enterprises **will not** have production. This is expected since many are never harvested or grazed and instead are terminated.
- Seed, chemical, machinery costs, etc are entered as individual expense items for the cover crop and base crop enterprise being analyzed. Fertilizer is a Base Crop expense.
- Combine the Cover Crop with the Base Crop enterprise in Crop Enterprise Analysis data entry.

- Conservation payments received related to planting a cover crop should be allocated to the cover crop enterprise. These are Other Income for the enterprise. This would include CSP and EQIP payments. PCCP (\$5/acre crop insurance cover crop subsidy) is allocated to cover crop.
- Traditional government program payments (ARC/PLC) should be allocated to the base crop/cash crop only. These are included as Crop Government Payments.
- Designate the Cover Crop as a “**Cover Crop**” (select yes) in Other Crop Information data entry. Designate the Base Crop / Cash Crop as “**Grown After Cover Crop**” (select yes) in Other Crop Information data entry. Base crop types designated as “Cover Crop” will be deleted. Base crops are **Normal** crops. They are not designated as Double Crop and are not Established.
- Consider other metrics & special sorts as needed for both the cover crop & base crop.
- Cover Crop expense is not an expense category. Enterprises with this expense will be **deleted.**

Intercropping Practices

- Definition: the practice of growing multiple crops in the same field at the same time.
- How to Handle in Crop Enterprise Analysis

Option 1: Intercropping a second species for soil health purposes

- Example: soybeans planted with oats
- In this example, the second crop is planted with the primary crop for soil health and weed control purposes. This secondary crop is terminated with normal weed spraying during the season.
- **Analysis treatment:**
 - Enter as one crop enterprise analysis where the primary crop includes the expenses of the secondary crop.
 - Expenses related to the secondary crop are included in the primary crop expenses. For example, seed cost for oats as a secondary crop are included in the soybean seed cost.
 - It is assumed there are no other chemical or machinery costs, as the secondary crop is terminated with a normal spraying practices for the primary crop. If this is not the case, and extra inputs are utilized to terminate the secondary crop, increase the allocation factor for the enterprise and include any additional expenses occurred for the operations.

Option 2: Intercropping 2 crops that are planted and harvested at the same time.

- Example: “Peaola” (peas and canola) or “Soyola” (soybeans and canola) are planted and harvested at the same time. Production is separated after harvest.

-
- In this example, both crops have production and are double cropped on the same acres.
 - **Analysis treatment:**
 - Complete 2 crop enterprise analyses. The crop considered the double crop is the one planted to assist the normal crop. For Peaola, the canola is planted to prevent lodging of peas. Therefore, peas are the normal crop, and canola is the double crop.
 - Each crop enterprise should include production and each enterprise will have their respective expenses allocated. Consider whether allocation factors should be reduced for each crop, given the shared cropping services.

Relay Cropping Practices

- Definition: a multiple cropping system that consists of planting a second crop into a standing first crop prior to harvest. The first crop is harvested earlier in the production year, before the second crop is fully grown.
- How to Handle in Crop Enterprise Analysis
 - Example: soybeans and pennycress, soybeans and winter camelina.
 - In this example, both crops will have production and are harvested from the same acres. The pennycress or camelia are planted first, with soybeans planted into the established crop before it is harvested.
 - **Analysis treatment:**
 - Complete 2 crop enterprise analyses. The first crop harvested is the ‘normal’ crop and the second crop harvested on that acre is designated the ‘double crop’.
 - Each crop enterprise will include production and each enterprise will have their respective expenses allocated. Consider whether the allocation factor should be reduced for the second crop that is ‘relay planted’, given shared cropping services.

Crop Returns Data Entry:

Crop Name – Use the crop list (“Down arrow” Pick List). If the crop needed is not listed, contact your database leader. User added crops, those not in the master list, won’t be included in summary reports.

- **Hay enterprises** –
 - Use one of the recommended hay crop enterprise types for the crop enterprise analysis.
 - Hay, alfalfa
 - Hay, mixed
 - Hay, clover
 - Hay, grass
 - **“Hay”** should not be the crop type used in the enterprise analysis. It is acceptable to use “Hay” as the crop type on the balance sheet and cash flow projection.

- Within FINAN Crop and Feed Check, all hays are combined. *Exception* - Hay, Small Grain. This crop analyzes small grain & hay crop as one. Crop Type is Normal (not established).
- For haylage, baleage, and other wet forages (other than corn silage), it is preferred the dry hay crop type be used in the analysis. Convert the forage production to dry hay equivalents using the formula found under Total Production.
- **Wheat, Kernza** – is a perennial crop, therefore, year 1 production should be marked establish.
- **Organic transition crops** should be listed as conventional crops until fully organic certified.

- All crops can now be designated as **organic**. Select the 'Organic' check box for organic crops being analyzed in the Crop Enterprise Analysis.

Crop Enterprise Analysis

	1
Crop	Corn
Organic	<input checked="" type="checkbox"/>
Description	Thomas
Field ID	
Type	Normal

- For specialty crops enterprises grown using organic practices, but are not certified organic, consider the crop in Organic Transition by designating Organic Transition as “yes” in Other Crop Information data entry.

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.

Field ID – Use this description line to identify fields overtime to monitor the impact of cover crop production. The same field ID should be used across a farm. A suggestion is to use the FSA farm number here in order to tie all of the individual fields together for a farm unit.

Crop Enterprise Analysis

	1
Crop	Corn
Description	
Field ID	
Type	Normal
Acres owned	Establish
Acres cash rented	Double Crop
Acres share rented	DC, Estab
Your Share (%)	Irrigated
Total production (your share)	Irrig, Estab
Value per unit	Irrig, DC
Total product value	Irr, DC, Est
Hedging gain or loss	Normal

Type – Use only if applicable. The default type is a normal crop.

- **Hay establishment** should be entered separately from full production hay and coded establishment. If seeded with a nurse crop, such as oats, enter **alfalfa in a separate column** from the nurse crop and code as **establishment/double crop**. (The *nurse crop* is *Normal*). Use your judgment in allocating seed, fertilizer, and other direct expenses between enterprises. Overhead allocations should reflect the effort or use of equipment for the two enterprises. A suggested approach is to enter a minimum of 2/3 of the normal allocation to the nurse crop and ½ the normal allocation for the hay crop. For example, if the normal allocation factors are 30 for oats

and 60 for alfalfa, enter 20 for the oat enterprise and 30 for alfalfa establishment. Fixed per acre allocation items, like real estate taxes, should be reduced to .5 across impacted enterprises.

- Be sure to code **irrigated crops** – they should not be summarized with dryland acres.
- Analyze **straw & stover production** as a **Secondary Product** of the small grain, corn, or soybean enterprise. If analyzed as its own enterprise, the straw or stover enterprise **must** be identified as Double Crop. Normal crop type straw/stover enterprises will be deleted.

Acres Owned – Either total crop or each field owned.

Acres Cash Rented – Either total crop or each field cash rented. Custom hire enterprise acres should be entered on rented acres or as Value-Added Enterprise. These acres should not have a real estate tax or long-term interest expense allocation. Custom hire enterprise acres are excluded from Total Crop Acres.

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

- Enterprises with 100% and 99% share rented acres will be deleted.
- If major unpaid resources are provided to the operation by a family member, it is recommended to include a charge for the estimated value of those resources (hired labor, custom hire, machine lease, land rent for ex.) with an offsetting personal income entry to balance cash. Or include a value for Accounts Payable Forgiven for a particular expense (found in Accrual Adjustments to Expenses data entry). Use one of these approaches for ‘gifted’ land rent.
[\(See page 17 for more information.\)](#)

Your Share – Choose % production from crop share rental arrangements. (100% if owned or cash rent.)

Total Production – Bu, Cwt, Tons, and total volume produced for this field or crop. Use the FINPACK unit.

- Convert **haylage** to dry matter (DM) hay equivalents using this formula.
 - $(\% \text{ dry matter of wet crop} \div \% \text{ dry matter of hay equivalent}) * \text{wet production}$
 1. Ex: 100 tons of haylage: $(.35 \text{ DM haylage} \div .85 \text{ DM hay}) * 100 = 41.2 \text{ tons}$
 2. **Download** (File > Download > Microsoft Excel) the spreadsheet at z.umn.edu/DryMatterEquivalentsCalculator as a useful conversion tool.
- Convert **high moisture corn** to dry corn equivalent. Convert earlage to dry corn equivalent.
 - **Corn snaplage / earlage value** = estimate bushels per ton x corn price. Guide: 36.6 bu/ton.
- **Peas, Field** have a production unit of bushels. Convert lbs./cwts. to bushels if needed.
- **Edible bean crops** have a production unit of hundredweights (cwt.).

- **Baling Pastures** – If pastures are baled for animal feed, include the production as a **Secondary Product** in the pasture enterprise analysis. **DO NOT** add another enterprise called double crop hay for this production in the crop enterprise analysis.
- For **SHIPP, CRP, Custom Work, Prevented Planting, and Rented Out**, enter dollars received as crop insurance income, other income, or with the dollar value as the total production entry and \$1.00 for Value Per Unit. Note: in Summary and FINBIN reports, only gross revenue is displayed.
- **Specific notes related to Prevented Plant (PP):**
 - Use Prevented Planting crop type for prevent plant acres in crop enterprise analysis.
 - PP acres *need* to have both crop insurance income (gross value) and crop insurance expense values. *Do not* include only net crop insurance income with no expense.
 - If forage or another crop is harvested from PP acres, the production should be included as a second harvested product for the enterprise (use detailed entry). Production should be converted to dry equivalents. Alternative approaches are to enter this production as a separate double crop enterprise or enter the value as “**Other income**” in the Prevented Planting enterprise.
- 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>Mature bull</i>	<i>1.30</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 pasture feed expense to the beef enterprise analysis.

If pastures are baled for animal feed, include the production as a second harvested product (use detailed entry) on the pasture acres.

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 the Livestock Enterprise.

If the crop includes a combination of the above options (production sold in the fall, production contracted for future delivery, unpriced production, and production fed before year end) calculate the weighted average value per unit of the production to arrive at the value per unit. Use this spreadsheet to calculate the average value per unit.

An average value per unit calculator can be **downloaded** (File > Download > Microsoft Excel) at z.umn.edu/AverageCropValueCalculator for your use.

- **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, **crop government payments** (ARC and PLC), and any **other crop related income**. 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).

Use the “Select from...” icon  in detailed entry to select income amounts entered in Other Farm Income detail in the whole farm analysis. This applies to the following income categories: **crop insurance, CCC market loan gains, LDP payment, crop government payment, other government payment, conservation government payment, and miscellaneous crop income.**

How other crop income maps from Other Farm Income detailed entry in the whole farm analysis:

Crop Enterprise Analysis

Crop		1
Description		
Type	Normal	
Acres owned		
Acres cash rented		
Acres share rented		
Your Share (%)		100
Total production (your share)		...
Value per unit		...
Total product value		
Hedging gain or loss		...
Crop insurance income		...
LDP income		...
Crop government payments		...
Other income		...
Combine with ent. number		

- Crop insurance income
- CCC market loan gain
- LDP payment income
- Crop government payments
- Other government payments
- Misc. crop income
- Conservation government payments

- Crop insurance income
- CCC market loan gain
- LDP payment income
- Crop government payments
- Other government payments
- Misc. crop income
- Conservation government payments

Cash patronage dividends received in a year should be allocated to the appropriate enterprise. (Any equity redemption received in a year is a capital sale and would not be treated as income in the whole farm or any applicable enterprise.)

Include **Guaranteed Payments** received for canning crop enterprises (sweetcorn or peas) as Other Income in the crop enterprise analysis. In this case there will be no production income for the canning crop experiencing a failure for the production year.

Special notes:

- Because of the uncertainty of ARC and PLC payments, Crop Government Payments should be allocated to the year received rather than the production year.
- Allocation of Government Payments:
 - **ARC and PLC payments** are entered here but included in the output report as a “below the line” adjustment, meaning they’re added to the net return at the bottom of the report. Allocate payments over all tillable acres, except crops not contributing to base acres such as edible beans or other vegetables. Allocate by farm unit if possible.
 - **Note:** Payments received for IRA Section 22006 and 22007, CFAP 2 for underserved producers, ERP Phase 2, and PARP **are not** allocated to the crop enterprise analysis.
- CSP payments and related expenses: Income and expenses related to the CSP government program are allowed in the enterprise analysis for crop acres and applicable livestock operations. Income received related to crop enterprises is included as “**Other Income**”. These funds are allocated to applicable crop acres. Expenses related to the CSP program (typically soil testing, grid sampling, or cover crop related expenses) should be included as fertilizer, seed, or other appropriate expense and allocated to applicable acres. If CSP government program funds are received for practices related to pasture management of the specific livestock enterprises, funds received are included as “**Government Payment**” income. CSP related expenses should be included as Government program expense under Direct Livestock Expenses.

Direct Crop Expenses:

Enter the accrual adjusted expense amount for each crop in dollars. For like enterprises, enter the total cost in one column. You can then assign it equally to the other fields using a “-X” in the other enterprise(s), where X refers to the column in which the total was entered. For example, enter the first corn enterprise in column number 2. Enter the total seed cost for all corn in this column. For each

succeeding corn enterprise, enter -2 for the seed expenses to distribute the total equally (per acre) to all corn enterprises. (Crops do not have to be listed side-by-side for this to function properly.)

Seed – Seed expense. Also include:

- Seed treatment expenses.
- Assign a realistic expense for home-grown seed used. (Usually market price, plus cleaning treating and hauling).
- For canning crop enterprises, include the actual seed cost paid by the farmer. If there is no seed cost (as the seed is provided by the canning company), enter a zero seed cost. If the farmer had to pay for seed, include the expense paid.
- For hays, seed expenses should appear only on establishment enterprises and not on 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.

- Soil testing and grid sampling are included as fertilizer expenses.
- Micronutrients and biologicals for crop production are a fertilizer expense.
- Custom manure application costs should be split equally (50/50) between the livestock and cropping enterprises. For cropping enterprises, this expense should be allocated as fertilizer expense. (Livestock enterprises should allocate this cost as custom hire.)
- Lime fertilizer expenses should be accumulated on the balance sheet as a prepaid expense. The expense should then be allocated to the respective field/crop for a subsequent number of crop years, per the operator's discretion. If lime is spread in the spring, for the current crop, then a portion of the initial cost would be treated as a prepaid expense on the next Jan. 1 balance sheet (again, per the operator's recommendation). If lime is prepaid in the fall, the entire cost is treated as a prepaid expense and allocation begins the following crop year.
- Corn fertilizer allocation to soybeans: If no fertilizer was applied to soybeans, but fertilizer was applied to corn to supply nutrients for next year's soybean crop, a portion of the corn fertilizer should be allocated to soybeans. The recommended allocation is 50% of the corn P & K expense OR 25% of total corn fertilizer expense if P&K cannot be broken out.
- Prevented planting: Acceptable approaches for fertilizer applied to Prevent Plant acres:
 1. If the producer plans to reduce phosphorus and potash applications in the following year to use up these nutrients, accumulate these amounts in prepaid expense on the ending balance sheet to be allocated in the following year's analysis.
 2. If not, charge all fertilizer applied to prevent plant acres to the Prevented Planting crop.

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 “**Crop insurance income.**”

Drying Fuel – Amount of drying fuel for the crop. Edible beans and other specialty crops may have small amounts of drying expense. Silages should not include drying expenses.

Custom Hire – Fertilizer, chemical and aerial applications. Sugar beet freight charges. Hauling, trucking, and marketing expenses for forages and silages. Cost of product applied (fertilizer, chemical, seed) should be separated from custom hire application expense.

Hauling & trucking expenses for silage crops are a custom hire expense, NOT hauling & trucking expense.

Hired Labor – All hired labor expense for non-salaried workers who do not have management responsibility should be allocated as a direct expense between the applicable enterprises. Their labor is directly related to the enterprise production.

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. Silages should not include any marketing expenses.

Storage – Cost of storage for cash crops. Bags for high moisture corn **ARE** considered a **storage expense** for enterprise consistency purposes in the corn enterprise analysis.

Packaging and Supplies – The cost of bags, etc for **silages** is a Packaging and Supply expense. Silages should not include a storage expense.

Precision farming expenses – if these expenses do not fit elsewhere, include as **Misc. Crop Expense**. Expenses in this category should be kept to a minimum.

Preservatives and Inoculants – preservatives and inoculants used for forages and silages should be entered as a **Misc. Crop Expense**. **DO NOT** use the Drying or Storage expense categories for these expenses on forage and silage crops.

Organic Certification Fees – organic crops **MUST** include organic certification fees. Conventional crops should not include this expense.

Truck Expenses – the type of truck expense dictates how the expense is handled in the analysis.

- Farm Trucks – split out expenses related to repairs, fuel, and tabs (included as a miscellaneous expense) accordingly, if possible. If this is not possible, use judgment and include the farm truck expenses as repair or miscellaneous expenses.
- Semi/Grain Trucks – fuel, repairs, etc. are considered Hauling and Trucking expenses.
- Non-Farm/Over the Road Trucking – income and expenses related to non-farm trucking operations shouldn't be included in the farm analysis. Include a Value-Added enterprise if desired

Misc. Crop Expense – *the use of this expense category should be kept to a minimum.* Include a Unique Situation submission for unusually high miscellaneous crop expenses for an enterprise.

Use the “Select from...” icon  in detailed direct expense data entry to select direct crop expense amounts entered in Direct Crop Expense detail in the whole farm analysis.

Allocated Crop Expenses:

Enter allocation factors that weigh the expense portion allocated to each crop on a per acre basis.

Toggle  to view in Dollars (\$). Entries must be made as allocation factors. If you see references to percentages versus allocation factors you do not have a uniform benchmarking setup file installed. See [Section VIII: FINPACK Benchmark Setup File Installation](#) for more information.

Default Allocation – The [Standard Allocations](#) will automatically appear when a crop is selected, but adjustments can be made to any individual expense line if warranted.

Hay Enterprise Default Allocations

- Hay, Alfalfa; Haylage, Alfalfa; Hay, Mixed; Haylage, Mixed; and Hay crops assume **3 cuttings** for the year. Adjust allocation factor if needed, based on the actual number of cuttings for the year.
- Hay, Grass, and Haylage, Grass assume **2 cuttings** for the year. Adjust allocation factor if needed, based on the actual number of cuttings for the production year.

Cover Crop Enterprises Default Allocations

- Change the default allocation factor for single crops used as a cover crop and terminated (for example Rye). Reduce the default factor by 50%. Ex: Rye becomes 15 vs the default of 30.
- If the **cover crop is harvested or grazed there is no adjustment made to the allocation factor.**

Impact of Custom Hire Operations on Allocation Factors

- When a crop enterprise is produced using custom hired operations, either a portion or total, adjust the allocation factor accordingly. Use judgment when making this change. Consider how specific expenses are handled, if needed. For example, is the farm providing fuel or is that included with the custom hire operations? For crop enterprises that are custom harvested, the recommendation is to reduce the default allocation by 50%.
- Custom work enterprises should not have real estate taxes or long-term interest expenses allocated to them. Enter custom work enterprises as rented acres.

Other Crop Information:

This information will be used to provide additional details in the state database.

Previous Crop – If the entire field was planted to the same crop in the previous year, select 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 – Select the tillage method, row spacing, and other production practices, if consistent practices were used across the entire field. If inconsistent practices were used, leave blank.

Note: It is as important to specify that a specific practice was not used. For example, if no GMO seed was used, be sure to select No for GMO Technology.

Tillage System Options – Select the tillage type employed across the field. Choose from the following:

- Moldboard – flip 8-10 inches of soil
- Chisel/Deep Till – stir 8-10 inches of soil
- Minimum Till – chop and fluff 2-3 inches of soil; method doesn't turn over soil, leaves residue
- No Till – no disturbance to soil bed
- Ridge Till – planting in ridges built during cultivation of previous year's crop
- Strip Till – disturbing on the portion of the soil that is to contain the seed row
- <No Answer> - use this when multiple tillage systems are used or no one system can be designated for all acres included in the analysis.

Cover Crop related – identify both the cover crop enterprise and benefitting base/cash crop here.

- Cover Crop – identify any cover crop acres as Yes.
- Grown After a Cover Crop – identify base/cash crop planted after cover crop with Yes designation.

Special Sorts – Use special sorts where appropriate. **Joint venture** is *required* 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. If the whole field or a major portion was replanted, delete from the averages.

LIVESTOCK ENTERPRISE ANALYSIS

Livestock Enterprise:

Use the “drop-down” livestock 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 a member of the database review team for your area. Be sure to use the proper enterprise.

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 the 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.

New Note: Enter contract grower income as Contract Income (not Transferred Out value). Cost of production calculations will be accurately calculated.

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.

Livestock Inventory tab:

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 from Sales**’ icon from the detailed entry 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 use the ‘**Select from**  **Sales**’ icon to select from previous entries for feeder livestock purchases (from whole farm Direct Livestock Expense detail), sales (from whole farm Livestock Sales detail), and cull sales or contract livestock income (from whole farm detail on the Other Farm Income page).

Born – Enter the number of animals born alive. See the specific recommendations per livestock species later in this section.

Sold – Enter number sold, total live weight pounds sold, and gross income received of market livestock. Weights should be entered on a live weight basis. If sold on carcass weight and the yield is unknown, convert live weight based on a 75% yield for pigs and 63% yield for cattle.

Cull Sales – Downers should be included with culls, not died.

Transferred Out – Beef Calves from Cow-Calf 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 separate.

See Livestock category specifics ([Dairy & Dairy Replacements](#), [Beef](#), [Hogs](#), and [Grow/Finish](#) enterprises) further in this manual for more details.

TRANSFER TABLE

Enterprise Description	Number	Pounds	Value
Beginning and Ending Inventory - Breeding Livestock	Cows on hand Bulls Bred Heifers Open Heifers kept to breed	<i>Exclude for Dairy, Beef, and Sheep breeding stock.</i>	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	<i>Exclude for Dairy, Beef, and Sheep breeding stock.</i>	Amount paid
Transferred in (Once a cow, always a cow; Calves get born into dairy cow & transferred out)	Head Amount	<i>Exclude for Dairy, Beef, and Sheep breeding stock.</i>	Breeding stock at cost; otherwise Market Value
Sales (except Culls)	Number of Head including sales for breeding stock	Weight (<i>except dairy</i>)	Cash Receipts
Culls	Cull cows, dairy, beef, hogs, etc.	<i>Exclude for Dairy, Beef, and Sheep breeding stock.</i>	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)		

Product Sales and Other Income tab:

Sales – The quantity and value should be the livestock products produced and sold during the analysis year. Use detailed entry and then the **Select from sales** icon  to select from whole farm entries.

These sales are specific to the livestock enterprise type. Use the chart below as a guide.

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

Fed – This entry is specific to dairy analysis. Report the quantity and value of milk fed to calves here.

Hedging Gain or Loss – include livestock specific hedging gains/losses. (For losses, enter negative value).

Government Payments – Include livestock specific government payments like DMC, GRP, EQIP, and CSP here. ([See previous CSP/EQIP recommendations for annual operating expenses if needed](#)).

Contract Income – Include income received by contract growers for their livestock production services.

Other Income – Include other income sources for the enterprise here.

Use the “**Select from Whole Farm**”  feature to efficiently bring whole farm income values to the other income for the applicable livestock enterprise analysis. Information entered in Other Farm Income detailed entry can be selected for use as Other Livestock Income in the following manner:

Livestock Inventory		Product Sales and Other Income		Other Information	
	Milk Quantity			Value	
Sales	...	lb.			...
Used in the home		lb.			
Fed		lb.			
Hedging gain or loss					
Livestock insurance income					
Government payments					
Contract income					
Other income					

- Livestock insurance income
- Livestock government payments
- Contract livestock income
- Misc. livestock income

Cash patronage dividends received in a year should be allocated to the appropriate enterprise. (Any equity redemption received in a year is a capital sale and should not be treated as income in the whole farm or any applicable enterprise.)

For Breeding Bulls (leased out) - split out as a separate enterprise and show lease income. Use Detail to document entries.

Other Information tab:

Data entered on this tab is specific to the enterprise being evaluated. Be sure to enter the applicable Other Information data requested for each livestock enterprise type. This information (like avg. number of head, normal total gain, & offspring production related) drives the enterprise efficiency factors.

- **Avg no. head** – drives per head (middle) column for breeding-type enterprises.
- **Normal total gain** – drives per head (middle) column for grow-finish type enterprises. (Gross margin value here = normal total gain entered.)

The *Other Information* entered and related efficiency factors generated for livestock enterprises is an important review point for the accuracy of the livestock enterprise being evaluated. Pay special attention to this information. Inaccurate efficiency factors are a common error that leads to enterprises being deleted from the database. (Helpful hint: use Benchmark Reports in [FINBIN](#) for a typical range of acceptable values for the efficiency factors related to a specific livestock enterprise.)

FEED FED:

Enter the quantity and value of each feed fed. (This information is used in enterprise efficiency factor calculations.) **Toggle**  to enter price per unit instead of total value.

Valuing Home Grown Feed: value all homegrown commodities fed with their **opportunity cost** (est. avg. market value) & **not** the farm's cost of production value.

Use **View Cash flow and Crop & Feed Check** toolbar icon  to view crop and feed check any time.

- It is preferred to enter haylage and other wet forages in dry matter (DM) equivalents and not their “as fed” form. This includes high moisture corn and baleage.
 - Formula for converting to dry equiv. = $(\% \text{ DM wet crop} \div \% \text{ DM dry crop}) * \text{wet production}$
Example for converting 100 tons of haylage at 65% moisture to dry equivalents:
 $(.35 \text{ dry matter haylage} \div .85 \text{ dry matter hay}) * 100 = 41.2 \text{ tons}$
Download (File > Download > Microsoft Excel) the spreadsheet at z.umn.edu/DryMatterEquivalentsCalculator as a useful conversion tool.
- [See previous AUM discussion related to pasture](#). Use same value for AUM production & feeding.

Common Feedstuffs	Unit
Beet pulp	Ton
Complete ration	Ton
Corn gluten	Ton
Cottonseed	Ton
Creep/starter	Ton
DDGS, dry	Ton
DDGS, wet	Ton
Milk	Lbs.
Milk replacer	Lbs.
Pasture	AUMs
Protein, vitamins, and minerals	Ton
Stover	Ton
Straw	Ton
Whey (dry)	Ton
Whey (liquid)	Gallon

DIRECT LIVESTOCK EXPENSES:

Enter the total accrual adjusted dollar amount of each expense listed.

Breeding – Embryo transfer costs are breeding expenses.

Veterinary – include all veterinary related expenses here. This includes expenses associated with dairy genomics. Accumulate here and allocate between the enterprise being tested (Dairy vs Repl Heifers).

DHIA – DHIA costs of a Dairy Cow enterprise should be entered using the DHIA expense category.

Silage Bags – should be considered a Direct Crop Expense & included using those recommendations.

Marketing Expenses – include only costs incurred in marketing and marketing decisions for livestock operations. This includes brokerage fees; advertising; state & national deductions; and other marketing tool fees. Do not include milk hauling expense here. (The exception is cull cow hauling, include that here.)

Do not include the gains or losses received from hedging transactions here. Hedging gains or losses are entered under "[Product Sales and Other Income](#)". Expenses entered here are brokerage fees only.

Hauling and Trucking – charges related to hauling and pickup of livestock and livestock products. For dairy enterprises, this category should be used exclusively (only) for milk hauling.

Manure Application – Custom application costs should be split equally (50/50) between the livestock and cropping enterprises. The livestock portion of these expenses should be allocated as a custom hire expense. (The cropping portion of the expense is fertilizer.)

Hired Labor – All non-salaried labor should be allocated as a direct expense. Salaried workers, especially those with management responsibility, should be entered as overhead expense and allocated between crops and livestock. See the specific Livestock category for more detailed information later in this section.

Livestock Rendering – include all expenses related to livestock rendering as Custom Hire.

Livestock Contract Grower Enterprises – Any livestock enterprise identified as **Contract Grower** **SHOULD NOT** include Contract Grower Expenses. Include expenses incurred in the **ACTUAL** expense category. For example, Livestock Supplies.

Miscellaneous Expense categories should have **limited values** entered in them, especially in the enterprise analysis.

ALLOCATED LIVESTOCK EXPENSES:

This data entry is used to allocate expenses between livestock enterprises. This data entry is used for expenses where exact dollar amounts are difficult to determine. The allocation process relates to the intensity of the livestock enterprise. For example, management of a dairy cow takes much more time, effort, and intensity on a daily basis as compared to a laying hen. Therefore, the allocation factor on a per head basis is 85 for a dairy cow versus .43 for a laying hen.

Pay special attention to the notation at the top of data entry here. This will indicate whether you are entering Percentages or per head Allocation Factors. If you see Percentages, you do not have the standard benchmarking setup file installed for your location. See [Section VIII](#) for more information.

Note: Benchmark Setup Files include Allocation factors. These can be turned on and off under Tools > Options. For Percentages, enter the % of the total of each expense listed between the applicable enterprises. 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 Allocation Factors](#) are used. The defaults can be overridden for the enterprise as a whole or on a per expense basis.

View the resulting actual expenses in dollars by clicking the **toggle** icon  from the toolbar. Changes cannot be made when viewing expenses in dollars. [Toggle back to make changes.](#)

SPECIFIC LIVESTOCK ENTERPRISE ANALYSIS RECOMMENDATIONS

SPECIAL NOTES FOR DAIRY and DAIRY REPLACEMENT ENTERPRISES:

General Notes

- 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. Calves are born in the dairy enterprise and transferred out to the dairy replacement and/or dairy steer enterprises.

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

- Be sure to combine the Dairy Replacement Heifer enterprise with the Dairy enterprise to enable the “Dairy Combined” report in the output. Do so in the enterprise selection table:

2 - Dairy Replacement Heifers

Enterprise name	Dairy Replacement Heifers
Description	
Gender	
Contract	
Shared	No
Combine with ent. number	1
Special sorts	None
Delete from summary	No

When dairy and dairy replacement enterprises are combined, the cost of the entire dairy replacement enterprise, net of revenue adjustments, is charged to the dairy enterprise in the Gross Margin calculation. This cost is labeled **Dairy Replacement Cost**. Using this approach, the dairy herd is charged the true cost of replacements instead of an arbitrary transfer price.

- List all heifers as breeding stock and cull cows will remain in the Dairy enterprise.
- Calves are born in the primary dairy enterprise. Those sold are sold directly from the dairy herd. All others are transferred, females to dairy replacement enterprise and males to dairy finishing enterprise at market value (suggested value \$100.00/head).
- **MILK BASE/QUOTA FOR COOPERATIVES –**
 - Any milk base/quota purchases are considered a **capital purchase** the year purchased, likely using the Other Long Term Assets category. Because of limited marketability, cost value and market value should be the same value.
 - Any milk base/quota allocated to the farm from the cooperative would not be valued on the balance sheet at all.
 - Treat milk base/quota sold back to the cooperative as a **capital sale** in the year sold.
 - If purchased milk base/quota is reduced by the cooperative because of consistent underproduction, treat this as a **loss of asset value** in the year the base is “lost”.
 - Treat any milk pricing impacts related to production over the farm’s base/quota as a lessor milk price for the period(s).
- Unique situations within the dairy enterprise (like embryo sales, bull royalties, milk bottling) should be separated from the “normal” dairy enterprise. For these situations, include a **Value-Added enterprise** to analyze that piece of the operation. Income from unique situations can be included in the whole farm analysis but segregate from the dairy enterprise analysis.
- **Special Sorts:**
 - Related to Dairy Margin Coverage Program include:
 - DMC – 1 year sign up
 - DMC – 5-year sign-up

Product Sales and Other Income

- Milk price used in the analysis should be **gross dollars**. The milk check deductions should be entered in the appropriate expense category, namely **marketing**. The net milk check should not be entered as the milk revenue.

Other Information

- **Required fields:** Average Number of Cows, Total pounds of protein sold, Total pounds of fat sold, Number of milking units.
- **Energy Corrected Milk (ECM)** will now be included in the dairy enterprise analysis output.
Formula: $ECM = (0.323 \times \text{milk lbs}) + (12.82 \times \text{fat lbs}) + (7.13 \times \text{protein lbs})$.

- **Barn Capacity** will only be included in the Historical Database for the farm.
- All other entries (average SCC, Average DIM, etc.) are to be entered if known. It is better to leave these values blank if unknown than estimate the values.
 - All of these “**Other Information**” entries will be included in the farm’s Historical Database, RankEm Summary, and FINBIN output, if a value is included.
 - **SCC (somatic cell count)** should be entered as a whole number, **do not** enter in thousands. Example: Enter 100,000 **not** 100.
- Cows per milking unit - Milking unit is one milking machine or one robotic milker. Output displays “Cows per milking unit”. Replaces barn capacity metric in FINBIN summary & benchmark reports.

Direct Livestock Expenses

- **Breeding:** If the amount spent to breed replacements is known, allocate the specific dollar amount to the replacement enterprise. Otherwise, use a split of 2/3 breeding expense to dairy (or main livestock enterprise) and 1/3 to replacements.
- **DHIA:** DHIA costs of a Dairy cow enterprise should be entered using the DHIA expense category.
- **Hauling and Trucking:** charges related to hauling and pickup of livestock and livestock products. For dairy enterprises, this category should be used exclusively (only) for milk hauling.
- **Marketing:** Only include expenses related to milk marketing, such as checkoffs and deductions. **DO NOT** include milk hauling expenses here. (The exception is cull cow hauling, enter that here.)
- **Contract Grower Expenses:** Any livestock enterprise identified as **Contract Grower should not** include Contract Grower expenses. Include the actual expense category. Example, Lvstk Supplies.
- **Hoof Trimming:** include as **Custom Hire** expense.
- **Labor:** allocate all labor as a direct expense in order for easiest benchmark comparison.

Allocated Livestock Expenses

- **Utilities:** allocate all utilities as an overhead expense. (Do not enter a direct expense distribution.)

Feed Fed

- **Milk replacer** should be included in the Dairy Replacement enterprise, not the Dairy.
- Limit types of feed fed to the following for Dairy & Dairy Replacement enterprises:
 - Hay, Alfalfa or Hay, Grass (both on a dry hay basis)
 - Corn Silage
 - Corn (convert high moisture corn and earlage to dry equivalent)
 - PVM or Complete Ration – this includes Corn Gluten, Soybean Meal, Canola, etc.

Labor Hour Guide

The guide below is useful in determining if the **Labor** data entry information is accurate in whole farm data entry. **Note:** one FTE (Full Time Equivalent) = 2,080 hours per year.

- **Robotic Herds** typically have 1.7 to 2.2 million pounds of milk production per FTE
- **Conventional Herds** typically have under 2 million pounds of milk production per FTE. A general guide is 500,000 to 1.7 million pounds per FTE

SPECIAL NOTES FOR BEEF ENTERPRISES:

General Notes

- 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, use the **“Cow-calf with backgrounding” special sort**.
- 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.
- **Other Information data entry:** Data entered in the third tab of the livestock inventory table is always important and often the source of enterprise errors. Review the Pregnancy, Calving, and Weaning information in the Other Information section of the output.

SPECIAL NOTES FOR HOG ENTERPRISES:

General Notes

- **Born** – for pig production enterprises, enter the number born alive.
- Live to carcass weight conversion factor will default to 75% if left blank.

SPECIAL NOTES FOR GROW/FINISH ENTERPRISES

- **When entering sales** - Enter number sold, total live weight pounds sold, and gross income received. Weights should be entered on a live weight basis. If sold on carcass weight and the yield is unknown, convert live weight based on a 75% yield for pigs and 63% yield for cattle.
- **Average Number of Head** and **Total Normal Gain** are required entries in the third tab of the Livestock Inventory table. Total normal gain should be entered as total pounds gained, not an average daily gain value.
- Feed additives and supplements are a **Purchased Feed** expense.
- Livestock implants are included as a **Veterinary** expense.
- Use the following as a guide for grow/finish livestock enterprise types:

BEEF	
Beef Cow/Calf / Calf Sales	Up to 650 lbs
Backgrounding	650 to 1,000 lbs
Finishing	Over 1,000 lbs

DAIRY AND DAIRY/BEEF CROSS STEERS	
Feeders	Less than 500 lbs
Backgrounding	500 to 1,000 lbs
Finishing	Over 1,000 lbs

HOGS	
Wean Pigs	Less than 15 lbs
Feeder Pigs	35 to 60 lbs
Finish Pigs	Over 200 lbs

SHEEP	
Feeder Lambs	Less than 60 lbs
Market Lambs	Over 100 lbs

Note: If animals are sold at abnormal sale weights, **delete** the enterprise from the database.

Calculations of Livestock Cost of Production with Revenue Adjustments

Livestock Cost of Production Revenue Adjustments

	Breeding Lvst Product Sale (Dairy) Cost of Prod Per Cwt. of Milk Prod	Breeding Lvst Sale by Wgt (Beef Cow-Calf) Cost of Prod Per Cwt. Produced	Breeding Lvst Sale by Carcass (Farrow to Finish) 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

	Breeding Lvst Sale per Head (Farrow to Wean) Cost of Prod Per Hd Sold/Trans	Finishing Lvst Sale by Wgt (Beef Finishing) Cost of Prod Per Cwt. Produced	Finishing Lvst Sale Per Head (Dairy Replace.) 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

MARKET CHANNEL ENTERPRISES

There is a specific manual that has been developed related to Market Channel Enterprise Analysis. Market Channel enterprise analysis is intended to determine the profitability of individual markets versus individual crops sold. For example, CSA versus a roadside stand versus farmers market 1 versus farmers market 2.

This type of analysis is intended for those producers with diversified markets. These operations likely have multiple crops grown on small acreages. Therefore, crop enterprise analysis may be difficult, as they track revenues based on market channel as opposed to individual crops produced. If desired, a crop enterprise analysis can also be completed on individual crops sold through channels to evaluate the profitability of the individual crop.

A thorough manual dedicated to Market Channel Analysis has been developed and is available on [CFFM's FINPACK Benchmarking for Educators](#) webpage.

AQUACULTURE ENTERPRISES

FINAN now has the capability to analyze aquaculture enterprises, specifically seaweed and oysters.

Seaweed enterprises are considered a type of crop enterprise and are analyzed in this area of FINAN.

Two kinds of **oyster** enterprises can be analyzed. This includes water column production and bottom culture production.

See the [Aquaculture specific closeout manual](#) for details on analyzing these types of enterprises.

VALUE ADDED/NON-FARM ENTERPRISES

Use the Value Added/Non-farm Enterprise Analysis to analyze value added co-op investments, custom work, and nonfarm enterprises such as trucking and seed sales. The Value Added/Non-farm enterprise analysis option can be initiated **General Information** data entry for FINAN.

Year of analysis	2022
Beginning balance sheet	January 1, 2021
Ending balance sheet	January 1, 2022
Cash flow plan for comparison (optional)	

Enterprise Analysis (optional)

Crop
 Livestock
 Market Channel
 Value Added / Nonfarm

Show group summary information

Analysis complete, include in Portfolio Risk Analyst

Enterprise – The first step in Value Added/Non-farm analysis is to select the enterprise type from the drop-down list. Select the enterprise that most closely describes this activity. “Other” is available if none of the available enterprises describe the activity to be analyzed.

Value Added/Nonfarm Analysis

	1
Enterprise	<div style="border: 1px solid black; padding: 2px;"> Agritourism Crop custom work Crop nonfood products Energy production Ethanol production Feed dealer Feed mill/grain handling Food sales [X] [More] </div>
Description	
Unit	
Quantity	
Gross Revenue	
Cost of goods sold	
Total investment	

Enterprise types – the intent is for the enterprise types in Value added/Non-farm analysis to be self-explanatory. The exception is “Other”. Use this enterprise type as needed for unique enterprises that do not fit the list below. Available enterprise types in this analysis area include:

- Agritourism
- Crop Custom Work
- Crop nonfood products
- Energy production
- Ethanol production
- Feed dealer
- Feedmill/grain handling
- Food sales
- Genetic premium
- Lease out farm assets
- Lvstk nonfood product
- Manure handling
- Other
- Seed dealer
- Trucking
- **Direct Meat Sales**

IMPORTANT NOTE: Contract Livestock is no longer a value-added enterprise option.

Previous contract livestock enterprises analyzed as a value-added enterprise have been converted to “Other”. Please evaluate contract livestock enterprises as a **Livestock Enterprise**.

Unit and Quantity – The Unit entered is the custom divisor for column 1 of the report output. The quantity entered is the divisor for the report. (The number of custom units entered.) The Unit title entered will be used in the column heading. Examples: miles for trucking, shares for co-op investments.

Gross Revenue – Enter the total gross revenue received for the value added/non-farm enterprise.

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. This can also be used to transfer the costs of production from the crop or livestock enterprise analysis. For example, a milk bottling enterprise might include the gross sales of bottled milk and then a transfer of the cost of production from the livestock enterprise analysis into this entry.

Total Investment – This will be used to calculate the Rate of Return on Assets for this enterprise. If the enterprise uses farm equipment, use some reasonable allocation method to estimate the proportional value of farm assets measured against this enterprise. For example, estimate how many hours per year the assets are used for normal farm versus value added/non-farm enterprises.

Here is an example of a Crop Custom Harvesting operation, paid on a per acre basis.

Value Added/Nonfarm Analysis

	1
Enterprise	Crop custom work
Description	Custom Harvesting
Unit	Acres
Quantity	200
Gross Revenue	10,000
Cost of goods sold	
Total investment	25,000

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 to Value Added in Related Operating Expense Allocation data entry.

Allocated Expenses – Enter the percentage of the Value Added/Nonfarm allocated expenses from whole farm data entry applicable to each enterprise. This will include the allocated portion of labor and management charge, as well as labor hours for the value added enterprise.

Value Added/Non-Farm Enterprise Analysis Output

The analysis output information will have 3 columns of information, including the per unit divisor entered for the enterprise, per \$100 gross revenue, and enterprise total. The per \$100 gross revenue values are what will be utilized for benchmarking purposes.

The simple example below includes both direct expenses and allocated expenses for our custom harvesting example enterprise.

Value Added/Non-Farm Enterprise Analysis -- Crop custom work, Custom Harvesting

	<i>Per Acres</i>	<i>Per \$100 Gross</i>	<i>Enterprise Total</i>
Acres	1.00	2.00	200
Revenue			
Gross revenue	50.00	100.00	10,000
Cost of goods sold	-	-	-
Gross margin	50.00	100.00	10,000
Expenses			
Insurance	6.00	12.00	1,200
Supplies	8.23	16.45	1,645
Other expenses	1.34	2.68	268
Fuel & oil	15.95	31.89	3,189
Repairs	11.63	23.27	2,327
Machinery depreciation	4.06	8.11	811
Total expenses	47.20	94.40	9,440
Net income	2.80	5.60	560
Unpaid labor & management charge	2.50	5.00	500
Net return over labor & management	0.30	0.60	60
Estimated labor hours	0.50	1.00	100
Total investment	125.00	250.00	25,000
Rate of return on assets	0.2 %	0.2 %	0.2 %

Section VI:

ORGANIC & SPECIALTY CROP FARM ANALYSIS

Balance Sheet Considerations

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

Whole Farm Special Sorts in the Analysis

If all enterprises produced on the farm are certified organic, identify as **Organic Farm (total)**. If some but not all enterprises are certified organic, identify as **Organic Farm (partial)**. **Organic Transition** is intended for farms **first** transitioning from conventional to organic farming. A farm is either Organic or in Organic Transition. **Do not** select both whole farm sorts. Even if an organic farm is transitioning more acres to organic production, the whole farm special sort remains **Organic Farm**. If the farm produces fruits or vegetables for fresh markets, identify the producer as a **Specialty Crop** Farm. If not certified, but using organic practices, use the **Organic Transition** special sort.

Summary Information

Type of business	Sole proprietor
Farm ID	9876543
State	Minnesota
County	Redwood
Total acres owned	74.5
Number of operators	1
Operator number 1	
Year born	1962
Year started farming	1982
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	Totl organic
Analyst Name	Pauline Van Nurden
Summary Group	MN State College & University North

Detail: Whole Farm Special Sorts

Include	Description
<input checked="" type="checkbox"/>	Organic farm (total)
<input type="checkbox"/>	Organic farm (partial)
<input type="checkbox"/>	Organic transition
<input type="checkbox"/>	Specialty crop farm
<input type="checkbox"/>	Custom operator
<input type="checkbox"/>	Plain sect farm (PA)

Whole Farm Analysis

Crop Sales – All crops can now be designated as **organic**. Select the ‘Organic’ check box for organic crops being analyzed in the Crop Enterprise Analysis.

Crop	Organic	Description	Quantity Sold	Income Received	Price Per Unit
Soybeans	<input checked="" type="checkbox"/>		1,000 bu.	34,557	34.557 bu.
	<input type="checkbox"/>				

For specialty crops grown using organic practices, but are not certified organic, consider the crop in Organic Transition by designating Organic Transition as “yes” in Other Crop Information data entry.

Livestock Sales – There is **no** organic designation for Animal or Product sales.

Direct Crop Expense

- **Organic Crop Protection** is used for all expenses related to crop protection products used for organic weed, insect, or other pest control. There should be **no** Crop Chemical expense used for organic crops.
- **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.

Direct Livestock Expense

- **Purchased Feed.** Use the organic commodity type option if the operation purchases commodity feedstuffs for livestock. Ex: Hay, alfalfa with the organic box checked.

Detail: Purchased feed

Description	Type of Feed (Optional)	Organic	Quantity	Value
Hay	Hay, Alfalfa	<input checked="" type="checkbox"/>	40 ton	12,000
		<input type="checkbox"/>		

Related Operating Expense

- **Organic Certification.** Organic enterprises **must** include this expense.

Crop Enterprise Analysis

Organic Enterprise Identification – Identify the organic crop to be analyzed using the **Organic** checkbox in Crop Enterprise Analysis data entry. Any crop can be designated as an organic crop with this update.

Crop Enterprise Analysis	
	1
Crop	Soybeans
Organic	<input checked="" type="checkbox"/>
Description	
Field ID	
Type	Normal
Acres owned	
Acres cash rented	
Acres share rented	
Your Share (%)	100
Total production (your share)	... bu.
Value per unit	... bu.
Total product value	
Hedging gain or loss	...
Crop insurance income	...
LDP income	...
Crop government payments	...
Other income	...
Combine with ent. number	

Crop Value – Value per unit used should follow the same guidelines as suggested for conventional crops in the Closeout Manual; the sale value for products already sold and the ending inventory value for products held in ending inventory.

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 second, third enterprises as double crops.
- If some crop was left in the field because of lack of markets, report the quantity sold.

Specialty Crop Enterprise Identification –

- 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.

Direct Crop Expenses – Organic crop production should use the following expense in the organic enterprise analysis:

- **Seed and Plants.** If the farm is using home grown seed, a realistic price should be included as a seed expense. This includes market price plus cleaning, hauling, etc. Seed expense should not be \$0 for organic acres.
- **Organic Crop Protection.** Organic acres should have this expense if crop protection products were used. Acres with Crop Chemical expense *will be deleted!*
- **Organic Certification.** Organic crops should have a portion of this annual fee allocated to them.

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.

Other Crop Information

- **GMO Technology** should have the ‘No’ radio button selected.
- **Organic Transition.** Certified organic acres should list ‘No’, like convention acres. See below for instruction on acres in [organic transition](#).
- **Manure.** Select the proper manure use for the acres.
- **Special Sorts.** Remember to review the other available special sorts. Pay particular attention to the following: Cover crop; Grown with cover crop; CSP/EQIP/Conservation; Type of fertilizer used (if commercial used); Amount of fertilizer used.
- **Delete from summary.** Refrain from using this option on organic acres. The goal is to have as many organic acres in the database as possible.

Special Note for Crop Acres Transitioning to Organic

- If crop acres are in the process of transitioning to organic use the conventional crop type, not the organic option. For example, use “corn” not “corn, organic” until acres are certified organic.
- Acres in organic transition should utilize **Organic Crop Protection** *not* Crop Chemical expense.
- In **Other Crop Information** data entry, select “Yes” for acres in **Organic Transition**.

Livestock Enterprise Analysis

Enterprise Identification – Identify certified organic enterprises as **Organic** using the **Special Sorts**. If transitioning to certified organic production, select the **Organic Transition** special sort. This is the only way organic & organic transition livestock enterprises are identified.

1 - Dairy

Enterprise name	Dairy
Description	
Gender	
Contract	
Shared	No
Combine with ent. number	
Special sorts	Organic
Delete from summary	No

Detail: Livestock Special Sorts

Include	Description
<input checked="" type="checkbox"/>	Organic
<input type="checkbox"/>	Organic transition
<input type="checkbox"/>	Dairy initiatives
<input type="checkbox"/>	DMC - 1 yr sign-up

Delete from summary. Refrain from using this option on organic livestock enterprises. The goal is to have as many organic enterprises in the database as possible.

Livestock and Product Sales. Income received should reflect the actual income received for organic livestock sales.

Feed Fed

- Home produced organic feed should be valued at estimated market value for organic feed of the same quality.
- All organic livestock enterprises should have '**Pasture, Organic**' or '**Pasture, Intensive Organic**' as a Feed Fed. Pasture aum's for feed are produced in the Crop Enterprise Analysis.

Feed Fed

Feed	Unit	Description	Amount Remaining	1-Dairy	
				Quantity	Total Value
Pasture, Organic	aum		475		

Direct Livestock Expenses

- **Organic Certification.** Organic enterprises must include a portion of this annual fee allocated to them.

Section VII:

COVER CROP ANALYSIS

In this section you will find information specific to entering cover crop information in the crop enterprise analysis. In general, follow the same guidelines as suggested throughout the Closeout Manual.

Note: The cover crop is **ALWAYS** analyzed as its own crop enterprise. The cash crop/base crop and cover crop are to be analyzed separately, as their own individual crop enterprises. They are then 'combined' to display the 'base crop with cover crop' report in FINAN.

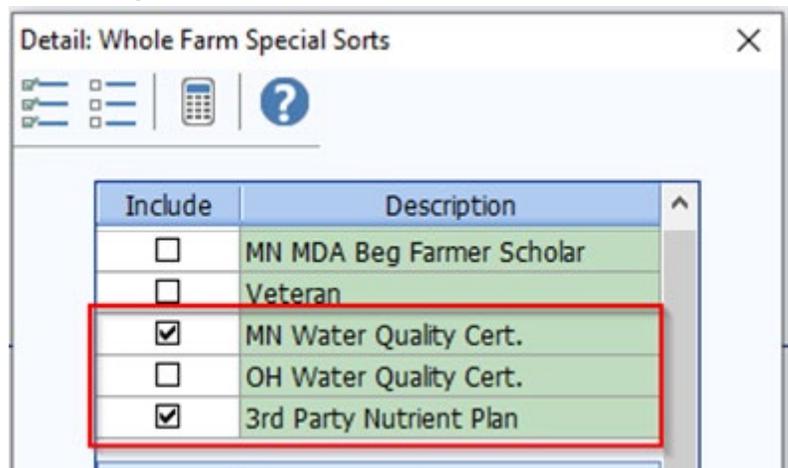
Balance Sheet Considerations

Accumulate expenses related to fall seeding of cover crops on the ending balance sheet in one of two ways – either as a **Prepaid Expense** or as a **Growing Crop**.

- **Prepaid Expense and Supplies** - Accumulate all expenses related to planting cover crops using the individual expense categories needed (for example seed). The expense should then be allocated to the respective field/crop the following year. Use **Detail** to select the expense category to help identify the total expense incurred in the FINAN enterprise analysis.
- **Growing Crops** – Another option is to include expenses related to planting cover crops as a growing crop. In data entry, **Quantity** equals the number of acres and **Value per Unit** is the cost of inputs. Use **Detail** to select the expense category.

Whole Farm Special Sorts in the Analysis

Consider if the the following special sorts that apply to the farming operation: **MN Water Quality Certified** and **3rd Party Nutrient Management Plan**.



Whole Farm Analysis

CROP SALES:

If a cover crop is produced and sold, enter the commodity sold like any other commodity. This includes entering gross quantity of crop sold and gross income received. Enter gross proceeds here and enter expenses deducted from the sale as farm expenses.

OTHER FARM INCOME:

Conservation Government Payment – Many cover crop acres qualify for additional funds. Remember to enter government payments related to conservation efforts in the whole farm analysis.

- SHIPP, EQIP, CSP, PCCP and other cost share program payments are entered here for conservation production practices.
- If funds are received as an annual payment for conservation related production practices –
 - Treat the cost-share funds received as income in the whole farm analysis. The funds received offset operating expenses for particular enterprises.
 - These payments should be entered as **Conservation government payments** in the Other Farm Income area of the whole farm analysis.
 - Allocate the payment received to the appropriate **Cover Crop** enterprise(s). These payments are included as **Other Income** in the crop enterprise analysis in the year the cover crop is analyzed.
 - **Note:** these payments may be received in the fall, when seeding occurs. Include as income when received in the whole farm analysis. Funds are allocated to the cover crop enterprise when analyzed the following year. (Use FINPACK Notes as an optional tracking method.)

FARM EXPENSES:

Direct Crop Expenses – Enter all actual cash farm expenses paid during the calendar year.

DO NOT use ~~Cover Crop Expense~~. This expense chart of account has been removed & shouldn't be used!

Cover Crop - Crop Enterprise Analysis

All cover crops are analyzed as their own crop enterprise, no matter if used for feed, sale, grazing, or soil enhancement/agronomic purposes. **Cover crops are analyzed in the year production is complete.** Expenses for fall seeded cover crops are accumulated on the balance sheet as Growing Crop or Prepaid Expense. Then, analysis of the cover crop enterprise happens in the following year's analysis.

CROP DATA ENTRY:

- **Crop** – Use the crop type from the pick list that best matches the cover crop in the analysis. Select the individual crop if a single species is planted. If a mix is planted, utilize the best option: **cover crop grazing** (unit: AUM), **cover crop mix** (unit: \$), or **cover crop rye mix** (unit: \$).
- **Field ID** – enter a Field ID for both the cover crop & grown after cover crop enterprises. Leave this Field ID description consistent for each year’s analysis to allow tracking cover crop related fields over time to determine long term impacts of using cover cropping practices.
- **Type** – the cover crop enterprise should be identified as Double Crop.
- **Acres and Tenure** – both acres and tenure type (rented, owned, share rented) must match for the cover crop and base crop/cash crop that are being combined and analyzed together.
- **Production** – if a cover crop is harvested or grazed, indicate the production received from the acres. If the cover crop is solely for agronomic and soil enhancement purposes and terminated in the spring, there will be no production. This is expected and acceptable.
- **Other Income** – allocate any conservation payments received related to planting cover crops as **Other Income**. These may have been received the prior year, when the cover crop was planted.
- **Combine with enterprise number** – combine the cover crop with the base crop/cash crop planted after. The base crop/cash crop is analyzed separately, as its own enterprise.

	1	2
Crop	Cover crop mix	Corn
Description	Cover crop acres	Grown w/ Cover Crop
Field ID	John's 40	John's 40
Type	Double Crop	Normal
Acres owned	40	40
Acres cash rented		
Acres share rented		
Your Share (%)	100	100
Total production (your share)	\$	7,680 bu.
Value per unit	\$	5.72 bu.
Total product value		43,930
Hedging gain or loss		
Crop insurance income		
LDP income		
Crop government payments		
Other income	800	
Combine with ent. number	2	

DIRECT CROP EXPENSES:

- There is no longer a ~~Cover Crop expense~~ in the direct crop expense chart of accounts. Do not use this expense in the cover crop analysis!
- Seed, chemical, machinery costs, land rent, etc. are to be entered as individual expense items for the cover crop being analyzed.

Direct Crop Expenses

	Amount Remaining	1 Cover cp mix Cover crop acres John's 40 Double Crop 40 Acres
Seed and plants		1,000
Fertilizer		
Crop chemicals		300 ...
Crop insurance		
Drying expense		
Storage		
Packaging and supplies		
Custom hire		
Hired labor		
Land rent		
Machinery leases	350	
Utilities	250	
Hauling and trucking		
Consultants		
Transaction fees		
Marketing		
Miscellaneous		

ALLOCATED CROP EXPENSES:

- Review the [allocation factor](#) used and adjust if needed.
- Real estate taxes and long term interest should not be included on owned acres for the cover crop enterprise. These should be allocated to the base crop only.

OTHER CROP INFORMATION:

- **Cover Crop** – select 'Yes' for the cover crop enterprise
- **Other Crop Information** – review the other crop information being collected and enter the appropriate data for the enterprise.
- **Special Sorts** – consider any special sorts needed for the enterprise.

Grown After Cover Crop or Base (Cash) Crop - Crop Enterprise Analysis

Analyze the base crop/cash crop enterprise as normal. The crop to be analyzed with the cover crop is the one that **follows** the cover crop termination.

CROP DATA ENTRY:

- **Crop** – Use the base crop/cash crop from the pick list.
- **Field ID** – enter a Field ID for both the cover crop & grown after cover crop enterprises. Leave this Field ID description consistent for each year's analysis to allow tracking cover crop related fields over time to determine long term impacts of using cover cropping practices.
- **Type** – the grown after cover crop or base/cash crop enterprise should be identified as Normal.
- **Acres and Tenure** – both acres and tenure type (rented, owned, share rented) must match for the cover crop and base crop/cash crop that are being combined and analyzed together.
- **Crop Government Payments** – allocate any traditional government program payments (like ARC/PLC) to the base crop/cash crop.
- **Combine with enterprise number** – the cover crop is combined with the base crop/cash crop. No data entry is needed for the base crop/cash crop.

ALLOCATED CROP EXPENSES:

- Review the allocation factor used and adjust if needed. If using a single crop as a cover crop, change the default allocation by 50%. For example, rye as a cover crop would be 15 (vs 30 by default). If using a cover crop mix as the crop type there is no need to change allocation factors.
- Consider whether real estate taxes and long term interest should be included on owned acres for both the cover crop and base crop enterprises. If yes, split between the cover crop and base crop enterprises.

OTHER CROP INFORMATION:

- **Grown After a Cover Crop** – select 'Yes' for the base crop enterprise
- **Other Crop Information** – review the other crop information being collected and enter the appropriate data for the enterprise.
- **Special Sorts** – consider any special sorts needed for the enterprise.

Other Crop Information

Crop	Cover crop mix	Corn
Description	Cover crop acres	Grown w/ Cover Crop
Field ID	John's 40	John's 40
Type	Double Crop	Normal
Total acres	40	40
Previous Crop	None Selected	Soybeans
Field County		
Tillage system	<input type="radio"/> Moldboard <input type="radio"/> Chisel/deep till <input checked="" type="radio"/> Minimum till <input type="radio"/> No till <input type="radio"/> Ridge till <input type="radio"/> Strip till <input type="radio"/> <No Answer>	<input type="radio"/> Moldboard <input type="radio"/> Chisel/deep till <input checked="" type="radio"/> Minimum till <input type="radio"/> No till <input type="radio"/> Ridge till <input type="radio"/> Strip till <input type="radio"/> <No Answer>
Row width	<input type="radio"/> < 10 <input type="radio"/> 10 - 18 <input type="radio"/> 19 - 25 <input type="radio"/> 26 - 32 <input type="radio"/> > 32 <input checked="" type="radio"/> <No Answer>	<input type="radio"/> < 10 <input type="radio"/> 10 - 18 <input type="radio"/> 19 - 25 <input checked="" type="radio"/> 26 - 32 <input type="radio"/> > 32 <input type="radio"/> <No Answer>
GMO Technology	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> <No Answer>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> <No Answer>
Organic transition	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> <No Answer>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> <No Answer>
Manure	<input type="radio"/> Manure only <input checked="" type="radio"/> Manure and commercial <input type="radio"/> No manure <input type="radio"/> <No Answer>	<input type="radio"/> Manure only <input checked="" type="radio"/> Manure and commercial <input type="radio"/> No manure <input type="radio"/> <No Answer>
Cover crop	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> <No Answer>	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> <No Answer>
Grown after a cover crop	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> <No Answer>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> <No Answer>
Special sorts	CSP/EQIP/Con	CSP/EQIP/Con, Spot tile, 10: ...
Delete from summary	No	No
	1	2

SAMPLE COVER CROP ANALYSIS OUTPUT

Crop Enterprise Analysis

	<i>Cover cp mix Double Crop Cover crop a John's 40 Owned</i>	<i>Corn Grown w/ Cov John's 40 Owned</i>	<i>Corn After CovCp John's 40 Owned</i>
Returns			
Acres	40.00	40.00	40.00
Unit	\$	bu.	bu.
Yield per acre	-	192.00	192.00
Share of production (%)	100.00	100.00	100.00
Value per unit	-	5.72	5.72
Total product value	-	1098.24	1098.24
Other crop income	20.00	-	20.00
Gross return per acre	20.00	1098.24	1118.24
Direct Expenses			
Seed and plants	25.00	117.50	142.50
Fertilizer	-	145.00	145.00
Crop chemicals	7.50	28.75	36.25
Crop insurance	-	18.75	18.75
Drying expense	-	8.75	8.75
Hauling and trucking	-	5.63	5.63
Consultants	-	5.00	5.00
Miscellaneous	-	6.25	6.25
Fuel & oil	4.82	17.68	22.50
Repairs	4.96	18.17	23.12
Operating interest	0.94	3.44	4.38
Total direct expenses	55.71	362.41	418.13
Return over direct expenses	-35.71	735.83	700.12

COVER CROPS SEEDED AND GRAZED IN THE FALL

- If a cover crop is seeded and grazed in the fall when planted the production will be included the next year's analysis. In this case, the production may include grazing from the fall and spring, prior to termination. These AUM's produced should be totaled and included as described above.
- AUM's from fall cover crop grazing should still be fed to the livestock enterprise(s) in the correct year grazing occurred.
- **Note** – AUM's produced and fed may be off in a given year with this methodology. This will cause discrepancies in the Crop and Feed Check. In this case, accept these discrepancies. The goal is to properly analyze the total value of the cover crop enterprise.
- Handle the expenses and other cover crop logistics as described above.

COVER CROP EXAMPLE

Scenario: There is an 82-acre field in Kandiyohi County. Cover crop mix was planted on 40 of those acres during the fall of 2020. The cover crop was terminated in the spring of 2021. Corn was planted on all 82 acres following the cover crop termination. Cover crop mix was planted again on the same 40 acres in fall of 2021.

2020 Analysis Procedures

Jan. 1, 2021 Balance Sheet

Value the growing cover crop on the balance sheet as a **Prepaid Expense** or **Growing Crop**.

Include input costs to date in the valuation. Example seed and fertilizer.

The Cover Crop Mix enterprise is not analyzed in the 2020 analysis!

2021 Analysis Procedures

Jan. 1, 2022 Balance Sheet

- **Remove Prepaid Expense** or **Growing Crop** value for fall 2020 seeded cover crop from the balance sheet.
- **Add Prepaid Expense** or **Growing Crop** value for the fall 2021 seeded cover crop to the balance sheet.

- The 2020 cover crop inputs will be used in the accrual adjustments for the 2021 crop enterprise analysis.
- The 2021 cover crop inputs will be used in the accrual adjustments for the 2022 crop enterprise analysis.

2021 FINAN (Financial Analysis)

Step 1:

Cover Crop Mix Cover Crop Data Entry

- Enter the cover crop as a *separate enterprise*.
- Include *Acres & Tenure* to match base crop that follows. Designate as **Double Crop**.
- No crop production/income to include since spring terminated.
- *Conservation type payments* are allocated to the cover crop as **Other Income**.
- Enter applicable **Direct Expenses** for the cover crop (ex: seed, chemical, etc).
- Allocate related operating expenses per allocation factors. Adjust if needed.
- **Combine** cover crop enterprise w/ base crop to get combined cover crop report.

Step 2:

Corn Crop Base Crop Data Entry

- Analyzed like *other corn acres* in enterprise analysis.
- *Split fields as needed* if cover crop only planted on a portion of the acres. Base crop acres and cover crop acres must match.
- *Allocate FSA Commodity Program* payments as **Government Payments** (ex: ARC/PLC).
- *No cover crop expenses* are included with the base crop.

Step 3:

Other Crop Information Data Entry

- Cover crop enterprise: Select Yes for "Cover Crop".
- Corn crop enterprise: Select Yes for "Grown after a Cover Crop".
- Select applicable Other Crop Information and Special Sorts for each crop enterprise

Section VIII:

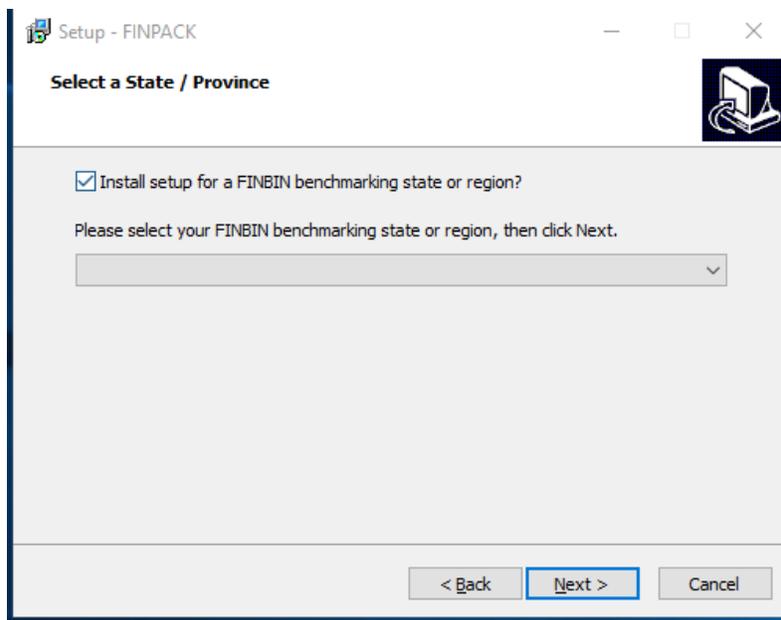
FINPACK BENCHMARK SETUP FILES

Installing the Uniform Benchmarking Setup Files for FINPACK

There is ***not*** a separate installation step to download the Uniform Setup files for FINPACK.

As a part of the FINPACK Installation, you will be asked if you want to “**Install setup for FINBIN benchmarking state or region?**”.

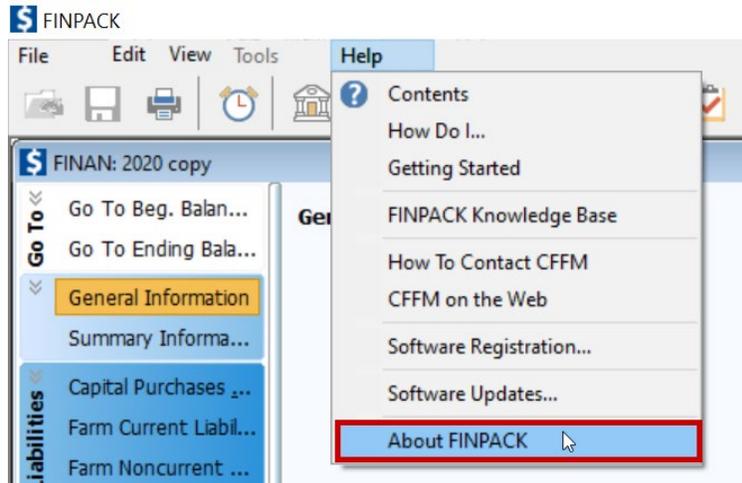
After selecting the checkbox, you will also have to use the dropdown to select the benchmarking state or region you are affiliated with.



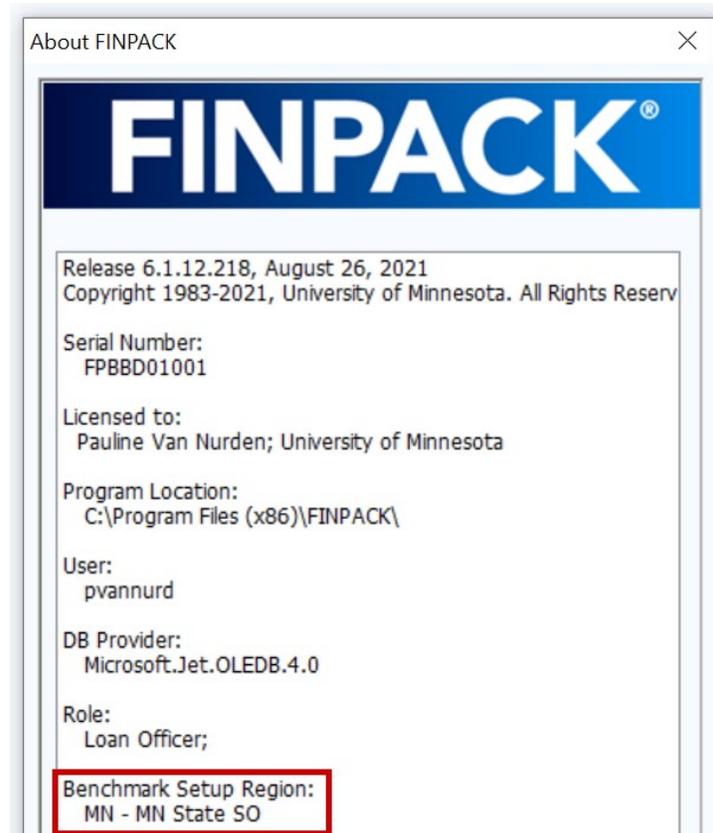
NOTE: This process replaces the need to download set files from the CFFM website. Furthermore, when you download an update during the year your setup file configuration will remain.

Verifying Benchmark Group Setup is Installed in FINPACK

In FINPACK, go to **Help > About FINPACK** to verify uniform setup files for your FINPACK installation.



In the About FINPACK dialog box, look for “**Benchmark Setup Region**”. If this does not appear in the dialog box information you do not have uniform benchmarking set up files downloaded. If this is the case, you will need to **re-install FINPACK** and follow the steps above.



Section IX:

FINPACK VAULT BEST PRACTICES

Getting Started with the FINPACK Vault

The FINPACK Vault is the secure file backup tool for your FINPACK files. This tool is also used by database leaders to aggregate farm financial data for the database and reports annually. There are several guides and a quick start video found at <https://www.cffm.umn.edu/finpack-benchmarking-for-educators/>. These will help you get started using the Vault and with Vault Conflict resolution.

Vault Best Practices Include:

- Back up your FINPACK data file to the Vault periodically throughout the year. When accessing the Vault, be sure to have a strong internet connection.
- Archive FINPACK files that you no longer need on a day to day basis. The default data folder where you house FINPACK files should contain active FINPACK files only. Archived files should be stored in a separate folder, outside of your default FINPACK data folder.
- If receiving a FINPACK file from another instructor be sure contact CFFM and database leadership about transferring the file through the Vault. DO NOT move files via flashdrive, email, or other methods. This will lead to Vault File Conflicts. Once a file is transferred, the initial instructor needs to delete the FINPACK file from their FINPACK data folder.

Section X:

IMPORTING FINAN DATA

Exporting from Accounting Software

FINPACK interfaces exist for several accounting software packages including Quicken, EasyFarm, PCMars, and UltraFarm. Each system will export the cash transactions for the period in a file format that can be imported into FINAN. At this time, only cash transactions are included. Most systems export totals for each chart of accounts category.

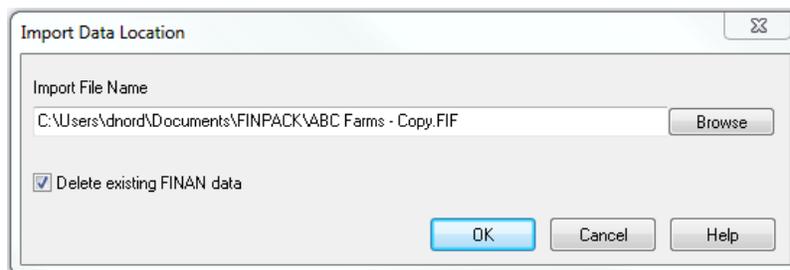
Note: PCMars and FINPACK have created a tighter integration, allowing the balance sheet data to be imported as well. Find more information on this process by [watching this recording](#).

The exported file will have a file extension of **‘.fif’ (FINPACK Interface File)**. If the export file does not include this extension, rename the file to add the .fif extension. Refer to the individual accounting system documentation for instructions on exporting data for FINPACK.

Selecting the FINPACK Interface File

Begin by creating your FINAN for the accounting period, either by creating a blank FINAN or copying last year’s analysis. On the FINAN General Information page, select the beginning and ending balance sheets (balance sheet data is not imported). Then select Edit + Import Data from the main menu.

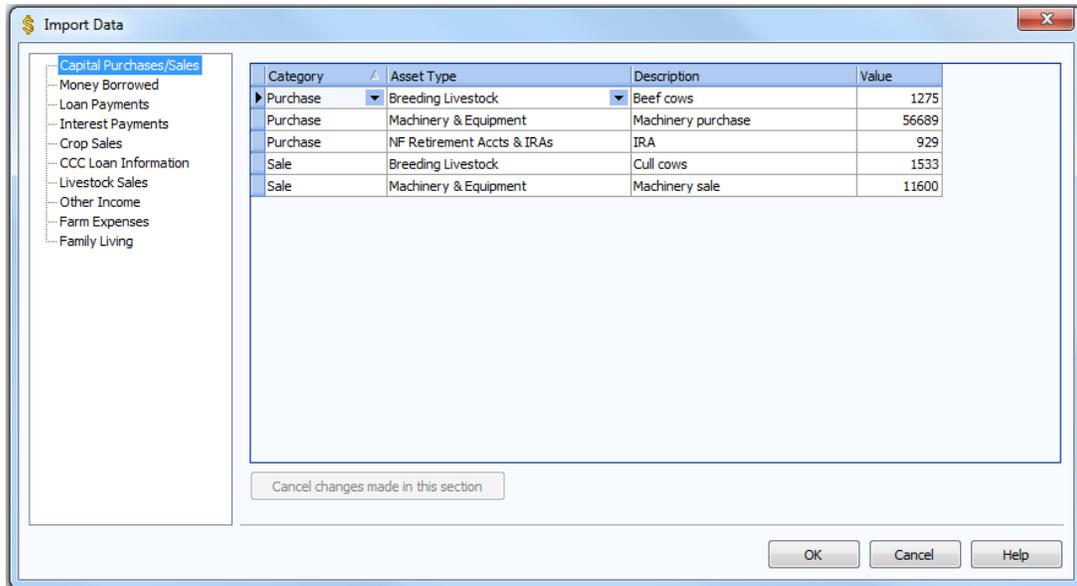
You will be prompted for the file location. If the correct file name for this farm is not displayed, click Browse to find the correct file.



The default setting is to delete all existing cash transaction data from the FINAN input. If you uncheck this option, imported transactions will be added to existing transactions. This may be useful for farms that keep more than one set of accounts.

Checking and Correcting Chart of Accounts Mapping

When the FINPACK Interface File is selected, the data will be displayed by category and chart of accounts location as shown below. At this point you have the ability to check and edit the destination of the imported data in FINAN. Scroll through the FINAN data entry page titles on the left to review and edit the data mapping.



Column 1: Category – This is the FINAN Whole Farm data entry category destination for the transaction data. The category can be changed to move data to a different location in FINAN. If the new category moves the data to a different page, the record will disappear from the current category listing once you move to a different record (as it is moved to the new page).

Column 2: This is the **chart of accounts destination** for each transaction. The major purpose of this page is to allow you to change the destination to accurately import the transaction data into FINAN.

Column 3: Description – This is the description of the account from the accounting software.

Column 4: Value – This is the dollar amount that will be imported. Values can be changed here in the unusual situation that a correction is needed. Value changes are temporary until the data is imported or the import is Cancelled; changes are not saved in the '.fif' file.

When you have verified the data mapping for each page of FINAN data entry, click OK. When the data has been successfully imported, the FINAN will close and you will need to re-open it to view and edit the FINAN data.

Importing Errors

If errors are found in the import file, an error message will be displayed, and specific amounts will not be imported. Errors usually indicate that the chart of account being mapped to in FINAN is not active in your copy of FINPACK. You will have to manually enter these amounts in FINAN to correct the problem.

Section XI:

ALLOCATION FACTORS

Allocation Factor Overview

FINAN enterprise analysis uses allocation factors to allocate certain expenses that are impractical to input on an enterprise by enterprise basis because exact expense dollar amounts are difficult to determine. The factors weight the relative intensity of different livestock or crop enterprises versus each other. For example, management of a dairy cow takes much more time, effort, and intensity on a daily basis as compared to a laying hen. Therefore, the allocation factor on a per head basis is 85 for a dairy cow versus .43 for a laying hen. On the crop side, an example is corn with an allocation factor of 55 and corn silage with an allocation factor of 70. Here, the crops are similar, but chopping, hauling, and storing corn silage takes more time, effort, and machine power than combining corn.

Use these allocation factors as a guide. Consider changing the allocation factor of an enterprise when farm practices warrant. If the farm uses more or less time, effort, and machinery power to produce a crop or livestock enterprise than normal, adjust the factor accordingly.

Crop Allocation Factors

Crop	Default Allocation
Alfalfa Seed	60
Barley	30
Barley, Malting	30
Beans, Black Turtle	50
Beans, Dark Red Kidney	50
Beans, Great Northern	50
Beans, Light Red Kidney	50
Beans, Lupin	50
Beans, Navy	50
Beans, Pink	50
Beans, Pinto	50
Beans, Small Red	50

Buckwheat	30
Camelina	30
Canola	30
Cordwood	60
Corn Silage	70
Corn	55
Corn, Ear	55
Corn, Seed	55
Corn, White	55
Cover Crop Grazing	15
Cover Crop Mix	15
Cover Crop Cereal Rye Mix	15
CRP (Establish 20)	5
Custom Work	30
Fallow	15
Flax	30
Grass seed	40
Hay	60
Hay, Alfalfa*	60
Hay, Grass **	40
Hay, Mixed *	60
Hay, Small Grain	40
Haylage, Alfalfa *	60
Haylage, Grass **	40
Haylage, Mixed *	60
Haylage, Small Grain w/ Peas	40
Hulless Oats	30
Oatlage	35
Oats	30
Pasture	5
Pasture, Intensive	20
Peas Field	30
Peas, Processing	30
Pennycress	30
Potatoes	300
Potatoes, Seed	300

Prevented Planting	20
Pulpwood	30
Rented Out	5
Rice, Wild	30
Rye	30
SHIPP (Establish 20)	5
Sorghum Silage	55
Sorghum, Grain	50
Soybeans	30
Stover	30
Straw	10
Sugar Beets	120
Sunflowers	40
Sunflowers, Confectionary	40
Sweet Corn	35
Timber	7
Triticale	30
Triticale Silage	35
Wheat	30
Wheat, Spring	30
Wheat, Winter	30
Wheat, Kernza	30

Special Notes Regarding Crop Allocation Factors:

* Hay, Alfalfa; Haylage, Alfalfa; Hay, Mixed; Haylage, Mixed; and Hay crops **assume 3 cuttings** for the year. Adjust allocation factor if needed, based on actual number of cuttings for the production year.

** Hay, Grass and Haylage, Grass **assume 2 cuttings** for the year. Adjust allocation factor if needed, based on actual number of cuttings for the production year.

When a crop enterprise is produced using **custom hired operations**, either a portion or total, adjust the allocation factor accordingly. For crops custom harvested, recommendation is to reduce the default allocation by 50%.

Consider changes to the Standard Allocation Factors on **double crop, cover crop and related situations**. For example, if a crop is used as a cover crop and terminated reduce the allocation factor by 50%. For example, rye used as a cover crop and terminated, change the allocation factor to 15 (from 30). If the cover crop is harvested or grazed do not change the default allocation factor.

Livestock Allocation Factors

LIVESTOCK ENTERPRISE	DEFAULT ALLOCATION
Beef, Cow-Calf	18
Beef, Replacement Heifers	7
Beef, Feeders	4.5
Beef, Background Beef	4.5
Beef, Custom fed	3
Beef, Finish Calves	9
Broilers, Contract	8
Chickens, Egg Production	.43
Dairy	85
Dairy Replacement Heifers	15
Dairy/Beef Cross Steers, Feeders	4.5
Dairy/Beef Cross Steers, Backgrd.	4.5
Dairy/Beef Cross Steers, Finishing	7
Dairy Steers, Feeders	4.5
Dairy Steers, Backgrounding	4.5
Dairy Steers, Finishing	9
Hogs, Contractor	85
Hogs, Farrow to Finish	27
Hogs, Farrow to Weaning	13
Hogs, Feeder Pig Production	17
Hogs, Finish Feeder Pigs	3
Hogs, Weaning to Feeder	1
Hogs, Weaning to Finish	4
Honey Production	4
Horses, Breeding Mares	4
Sheep, Feeder Lamb Production	4.5
Sheep, Lamb Finishing	1.5
Sheep, Market Lamb Production	7

Section XII:

SPECIAL SORTS

Special sorts are important for the separation of various data and comparing like types of operations with specific variations. Select all special sorts that apply. **Place special emphasis on Whole Farm Sorts.**

Whole Farm Sorts

Organic Farm (total)

Organic Farm (partial)

Organic Transition

Specialty Crop

Custom Operator

Beginning Farmer

Includes farmers/ranchers that have been in operation 10 years or less.

Limited Resource/Socially Disadvantaged Producer

Includes producers who have been historically underserved including Minority (Native American, Asian, African American, or Hispanic), Women, and Limited Resource producers. Limited resource producers are those with farm sales are less than \$226,300 in 2023. *Use specific Beginning Farmer and Veteran sorts for those producers with those designations.*

Veteran

MN Water Quality Certified Farm

Cover Crop Project (participant)

Used with farms participating in cover crop related programs with EDF and/or MN MOSH.

Climate Smart Project (participant)

Used with farms participating in climate smart projects. Climate smart is defined as produced using practices that reduce greenhouse gas emissions or sequester carbon.

Environmental & Structural Water Quality Controls

3rd Party Nutrient Management Plan

Crop Enterprise Sorts

Most of the crop sorts have been moved to the Production Practices on the first screen of the Crop Enterprise Analysis. For sugar beets, be sure to use the Joint Venture sort for rented beet base. Use other special sorts as appropriate.

- Drainage, pattern tile
- Drainage, spot tile
- Drainage, no tile
- Following fallow
- Joint venture
- Nitrogen, 28% UAN
- Nitrogen, urea
- Nitrogen, anhydrous
- 0 - 60 lb. Nitrogen
- 61 - 100 lb. Nitrogen
- 101 - 140 lb. Nitrogen
- 141 - 180 lb. Nitrogen
- > 180 lb. Nitrogen
- Side dressed fertilizer
- Auto-steer/Swath control
- Variable rate seed
- Variable rate fertilizer
- Variable rate chemicals
- 2nd yr. continuous crop
- 3+ years continuous crop
- CSP/EQIP/Conservation Practices
- Ethanol corn variety (Ex. Enogen brand)
- Subsurface Nutrient Placement

Livestock Enterprise Sorts

Use only the marked sorts each type of enterprise. Place special emphasis on the **bolded** items.

	Dairy	Beef Cow-Calf	Beef Finishing	Hogs	Dairy Replace	Dairy Finishing
Organic	X	X	X	X	X	X
Organic transition	X	X	X	X	X	X
Dairy initiatives	X					
3x milking	X					
Tie stall Barn	X					
Free Stall Barn	X					
Sand bedding	X					
Compost bedding	X					
Rotational Grazing	X	X			X	
Robotic milking	X					
DMC – 1-year sign-up	X					
DMC – 5-year sign-up	X					
Raise replacements	X				X	
Per-Head-Per-Day Contract	X				X	
Buy/Sell Replacements	X				X	
Calf Auto feeders	X	X	X	X	X	X
Dry lot		X				
Share lease		X				
Finish, Females Only			X			
Finish, Males Only			X			
Finish, Split Sex			X	X		X
Location, Single Site				X		
Location, Multiple Sites				X		
All-In-All-Out Site				X		
Weaning, 21 Days or Less				X		

	Dairy	Beef Cow-Calf	Beef Finishing	Hogs	Dairy Replace	Dairy Finishing
Weaning, Over 21 Days				X		
Segregated Early Weaning				X		
Wean to Finish Barn				X		
Auto-Sort Barn				X		
Ventilation, natural				X		
Ventilation, total power				X		
Ventilation, tunnel				X		
Ventilation, curtains/minimum power				X		
Hoop barn				X		
Large Pens > 80 head				X		
Small Pens < 30 head				X		
Feeding DDGs	X	X	X	X	X	X
Grassfed	X	X	X		X	X
Embryo Transfer (ET)	X	X			X	
Spring calving		X				
Summer calving		X				
Fall calving		X				
Winter calving		X				
Cow-calf with backgrounding		X				
Seedstock production		X				