

# Cash Flow Planning

**With this program, the user can generate an annual profitability and cash flow plan for a farm operation.**

The information needed to run this program can come from:

- An individual's farm records
- Completed crop and/or livestock budgets
- Current balance sheet (farm and non-farm)
- Lease and rental agreements
- Current depreciation schedule
- Loan records (schedule of principal and interest payments, interest rates and other loan terms)
- Income and real estate tax records
- Estimates of annual family living expenses
- Other sources of income

The user is required to provide estimates of costs, yields, and financial and tax information. The following information is required:

**Crop Enterprises** Acres, yields, prices, direct variable costs, and undistributed crop costs.

**Livestock Enterprises** Number of units produced, number of units sold, death loss, replacement animals kept, average weight per unit sold, average net price received per unit sold, quantities and price of feed required, and direct variable costs.

**Total-Farm Undistributed Costs** Hired labor, machinery repairs, building repairs, property and liability insurance, cash rent on land, fuel and oil, real estate taxes, utilities, miscellaneous costs, annual depreciation on machinery and equipment, and annual depreciation on buildings and improvements.



**Balance Sheet and Financial Information** Cash on hand, current assets for both farm and non-farm; farm and non-farm current, intermediate- and long-term loan payment schedules and interest rates; annual family living expenses and non-taxable cash receipts.

**Non-Farm Income and Costs** Family-living expenses, non-farm income and expenses, health and life insurance, non-taxable receipts, and investments.

### **Input Forms**

This section of the User's Guide provides instructions and suggestions to help the user enter cash-flow data on the paper-input forms (found in the **Appendix** at the end of this documentation) with minimal assistance. Explanations of the type of information needed for each section are provided. Descriptive titles as well as section numbers are used to facilitate quick access to specific topics as needed.

Copies of the input forms are located in the **Appendix**. A blank set of the forms should be completed before entering data into the program. Make photocopies of the forms in the **Appendix** and save the **Appendix** copy as the original.

The input forms are designed to simplify the process of gathering data for the projected cash flow analysis and organize data into the right sequence for entry into the computer.

The input forms consist of a **Cover Sheet** and five pages, front and back. Page information is further broken down into sections. The numbering system is such that the page will be listed first, then the section. For example, **1-3 Crop Expense Payment Schedule** includes information from **Section 3** on **Page 1**.

Shown below is a numerical list of the pages and sections included on the input forms found in the Appendix. Sections are grouped according to purpose and can help the user identify where he or she is in the program.

#### ***Page-Section***

##### **Page 1 Crop Production Data**

- 1-1 Crop Budget, Acres Owned/Rented/Yields
- 1-2 Crop Costs
- 1-3 Crop Expense Payment Schedule
- 1-4 Rental Agreement Adjustments

**Page 2 Crop Sales, Inventory and Financial Information**

- 2-1 Crop Price Estimates
- 2-2 Crop Inventory
- 2-3 Crop Sales Schedule
- 2-4 Accrual and Financial Information

**Page 3 Livestock Information**

- 3-1 Livestock Price Estimates
- 3-2 Livestock and Commercial Feed Inventory
- 3-3 Livestock Sales Schedule
- 3-4 Livestock Purchases Schedule
- 3-5 Feed Usage Per Unit of Production
- 3-6 Inventory Adjustments
- 3-7 Feed Purchases

**Page 4 Unallocated Items and Loan Information**

- 4-1 Undistributed Costs
- 4-2 Other Income
- 4-3 Loan Payment Schedule - Direct Entry
- 4-4 Loan Payment Schedule - Straight Amortization
- 4-5 Capital Purchases

**Page 5 Government Payments**

- 5-1 Government Program Payments Calculator
- 5-2 Loan Deficiency Payment Transactions

The following list of 29 questions may help the user identify the information needed to complete the input forms. The number before each question designates the **Page** and **Section** of the input form (see **Appendix**) where the data will be entered. It may be helpful to review the questions before filling out the forms.

***Page-Section***

- 1-1** Of the crops to be grown, what is your share of the acreage and the estimated yield of each?
- 1-2** What are the estimated total costs per expense category per acre (yours plus landowners)?
- 1-3** What percent of each production expense will you pay each month?
- 1-4** Did you list total costs per acre that will not be shared with the landowner in the same proportion as the yield is shared?
- 2-1** What price per bushel or per unit do you expect to receive each quarter for

the crops sold?

- 2-2** How many bushels and/or tons of each grain or feed are on hand at the beginning of the year?
- 2-2** What is the estimated price for feed and grains on hand?
- 2-2** For roughages, how much will be left on hand at the end of the year?
- 2-3** How many bushels of grain or tons of hay are to be sold in each month?
- 2-4** What are your beginning bank, operating loan, savings account, and accrual balances?
- 3-1** What price do you expect to receive or pay for livestock sold or purchased?
- 3-2** How many cwt. of livestock and commercial feed is on hand at the beginning of the year?
- 3-2** What is your price per cwt. for each livestock and/or commercial feed on hand?
- 3-3** What are your estimated livestock sales in cwt. or head per month?
- 3-4** What are your estimated livestock purchases in cwt. or head per month?
- 3-5** How many bushels of corn per cwt. livestock produced do you plan to feed?
- 3-5** How many lbs. of commercial feed per cwt. livestock produced do you plan to feed?
- 3-5** What is the price of commercial feed?
- 3-5** Will the rate of use of corn and commercial feeds be uniform each month?
- 3-7** Do you need to purchase corn for feed?
- 3-7** Do you need to purchase feed for other livestock? If yes, how many dollars' worth each month?
- 4-1** What are your total annual cash costs not listed as variable costs for crops on Page 1?
- 4-1** What percent (of these costs) will be paid each month?
- 4-2** What other farm (i.e., custom work, government payments, etc.) or non-farm receipts will you have each month?
- 4-3** What is the loan balance for each outstanding loan at the beginning of the year and how much is the accrued interest?
- 4-4** What is the payment schedule for each of loan?
- 4-5** What capital purchases will be made?
- 5-1** Will I receive government payments this year? If yes, what is the payment

rate per bushel? When will these payments be received? What is the acreage and program yield for each parcel of land farmed?

- 5-2** Will I receive Loan Deficiency Payments (LDPs) this year? If yes, what is the LDP rate? When will I lock in an LDP rate and on how many bushels will LDPs be received?

Because this program requires a great deal of input data to operate properly, completing the paper input forms allows the user to operate the program most effectively.

When completing the input forms, refer to historical financial and production records as well as business plans formulated for the coming year. It is best to assemble as much of this information as possible before beginning. Also be prepared to spend a substantial amount of time. The entire process of compiling and entering information requested by the program may take **3-12 hours** depending upon the size and complexity of the operation. The quality of results directly relates to the accuracy of the input assumptions used. Taking time and planning carefully are recommended.

In some situations, not all sections of the input form will be completed. For example, the cash-grain farmer does not need to fill out the livestock forms. Skip any forms and/or section that do not apply to the farming operation. These sections will become apparent as one proceeds.

Completed input forms will help the user enter data more quickly and permits some double checking of data before the program calculations are run. (A complete set of input forms is available in the **Appendix**. However, we recommend making a photocopy of the forms each time a set is needed and keeping those in the User's Guide as clean originals.)

The following pages describe each **Section** of the **Cover Sheet** and **Pages 1, 2, 3, 4 and 5** of the paper input forms.

### **Cover Sheet**

Complete the name, address, and preparer's name as specified on the cover page of the input forms.

Next, enter the month and year that the cash flow projection analysis begins. If preparing a cash flow for the period 1/1/2000 to 12/31/2000, enter **1** for month and **2000** for the year. Any reference to Month 1 on the input forms will relate to the beginning month indicated here. For example, if the cash-flow period began in July, enter 7 for the month of the beginning cash-flow date. In this case, all

references to Month 1 on the input forms would relate to July.

## **Input Form Completion**

### ***Page 1: Crop Production Data (Sections 1-1, 1-2, 1-3 and 1-4)***

**Page 1** of the input forms is used to describe the anticipated cropping plans for a given crop enterprise during the upcoming crop year. This description is given in both production-level and economic terms.

Page 1 consists of four separate sections. Each section has a unique function, but is related to the others in terms of how it must be completed. Below is a description of the information needed in each section as well as a discussion of the relationship that exists between Sections 1-1, 1-2, 1-3 and 1-4.

Each different crop type should be represented on a separate copy of the Page 1 input form. For example, if corn, wheat and soybeans will be planted, fill out three separate copies of the Page 1 (Sections 1-1, 1-2, 1-3 and 1-4) input form. List set-aside acres as a separate crop enterprise so the seed and other miscellaneous costs for these acres will be included in the cash-flow projection.

### **Section 1-1: Crop Budget Acres Owned/Rented/Yields**

This section assists the user in gathering information to describe the expected productivity of different parcels of land. It also defines the percent of that crop entitled to be kept by the user at harvest. Each line represents a parcel or a group of similar parcels of land. One line may be used for each parcel of land. However, one line may be used to represent more than one parcel only if the following four conditions are met:

- All acres will be harvested in the same month.
- All acres have the same estimated yields.
- All acres have the same cropping costs.
- All acres have the same rental agreements.

Otherwise, use separate lines as needed to accurately describe the specific cropping terms of each parcel. The number of lines used to describe a given crop enterprise depends on the uniformity of the crop yields, costs, and rental agreements.

**Section 1-1: Land Class Description**

This description should uniquely identify a parcel or parcels of land with a given yield, rental agreement and crop cost estimates. Such descriptions may include: cash rent, crop share, sandy soil, back 40, hundred bushel, etc.

**Section 1-1: Acres Owned**

For each parcel described in the first column, enter the number of tillable acres owned. With owned acres, the program assumes that the user receives 100% of the crop harvested and pays all of the cropping costs. If all or a part of the ground on this line is rented, enter only the tillable-acres owned in this column.

**Section 1-1: Rental Agreement/Acres**

For each parcel described in the first column, enter the total (operator plus landlord) number of tillable acres rented. This will include crop-share or cash-rental agreements. If part of the land on this line is owned, enter only the number of rented acres in this column. Note that both rented and owned land can be included on one line in this section. The distinction is made between the two by the acreage allotments made here.

**Section 1-1: Rental Agreement/Operator Percentage**

If an “acres rented” figure has been entered for the current line, the user should use this column to enter his or her share of the harvested crop. For example, use 100% if the rental agreement is cash rent, 67% for 1/3-2/3 crop share, 60% for 2/5-3/5 crop share, or 50% for 50/50 crop share.

**Section 1-1: Yield in Bushels Per Acre**

Enter the anticipated yield in bushels per acre.

**Section 1-1: Memo Area: My Share of Production**

Completion of this column is optional. However, it is recommended that this space be used to record the number of bushels to be received at harvest.

This figure will not be entered into the computer, but these totals may be helpful later when the number of bushels available to sell are estimated on

**Page 2, Section 2-3.**

**Section 1-1: Harvest Month Number (#)**

Enter the number of the month in which the parcel(s) likely will be harvested.

Remember, **Month 1** is the beginning month on the “Cover Page” of the input forms. For example, if January is month 1 of this report and the crop will be

harvested in September, enter 9. If, however, month 1 of this report is July and

the crop will be harvested in September, enter 3. The month entered here will be

used when converting the harvested crop to crop inventory.

### **Section 1-2: Crop Costs**

In this section, record crop costs for each parcel of land described in Section 1-1. Enter the total per-acre cost (operator plus landlord) for each input for each parcel.

Once data are entered, the computer automatically calculates the user's share of the total cropping costs for the rented acres. The percent of costs will be based on the operator's percent of crop production as entered in Section 1-1.

It is extremely important that the total cost per acre is entered for each cost item, including the landlord's share where applicable.

**Note:** Use Section 4-1 of Page 4 to enter estimated total costs for drying and storage, crop insurance, machine hire and other crop expenses instead of using the dollar-per-acre amounts in this section. These expenses may be entered in either Section 1-2 of Page 1 or in Section 4-1 of Page 4. Do not enter amounts for the same expenses in both sections .

### **Section 1-3: Crop Expense Payment Schedule**

Section 1-3 has one column for each month in the projection year and one line for each crop expense. This section shows the anticipated payment schedule for each crop expense entered in Section 1-2. For each crop expense category, estimate the percent of cost likely to be incurred during each month. After distributing each crop cost, make sure each line totals to 100 percent.

### **Section 1-4: Rental Agreement Adjustments**

A wide variety of rental agreements exist in which cropping costs are not shared in the same proportions as the harvested bushels. The program normally allocates the expenses listed in Section 1-1 in the same proportions as the crop is shared.

However, in Section 1-4, this assumption can be altered by indicating the percent of each expense in Section 1-2 for which the user will be responsible. Complete this form only if crop expenses exist that are not shared in the same proportions as the harvested bushels. When completing this Section, enter percentages only for specific cost items that are shared in different proportions than the crop.

Please note that the lines in Section 1-4 correspond to those in Sections 1-1 and 1-2. So, if adjustments are entered for the land tracts described on line three of Section 1-1, use the same line in Section 1-4 as well.

**Page 2: Crop Sales, Inventory and Financial Information (Sections 2-1, 2-2, 2-3 and 2-4)**

The financial information needed to complete Page 2 of the input forms include the following items:

- Projected crop prices
- Beginning crop inventory
- Crop marketing plans
- Operating loan information
- Savings and checking account information
- Estimated depreciation
- Accrual balances

Use Section 2-1 to record price estimates for crops to be sold in the projected year, Section 2-2 to establish beginning and ending inventory values, and Section 2-3 to indicate when crops will be sold during the year.

Before completing Sections 2-1, 2-2 and 2-3, make a crop marketing plan. This plan includes the specific timing of the crop sales, the price per bushel (ton) to be received, the number of bushels (ton) to be sold, and the crop inventory information.

Also, it may be helpful to complete the “Crop Inventory” information in Section 2-2 before completing the “Crop Sales Schedule” in Section 2-3. An accurate estimate of the bushels on hand at the beginning of the year is needed in order to estimate the bushels to be sold during the upcoming year. It also is helpful to use the totals from the section titled “Memo Area: My Share of Production” from Section 1-1 in order to help estimate the number of bushels of new crop sales.

For Section 2-4, enter information regarding savings and checking accounts, operating loans, estimated depreciation and beginning- and end-of-year accrual balances. Note that some of the figures recorded here are non-cash items (accrued items and depreciation). These are necessary to generate the projected income statement included in the output.

### **Section 2-1: Crop Price Estimates**

Use this section to record estimates of grain prices for each quarter of the upcoming crop year. Note that each line on this section represents a different quarter of the year and each column represents a different type of crop enterprise. Thus, the intersection of any line and column will designate the grain price per bushel for the given quarter and the type of grain specified.

Only enter projected crop prices in the columns that are applicable to the specific farming operation. Any or all of the following six crop categories can be used:

- Corn
- Soybeans
- Wheat
- Other Crop #1
- Other Crop #2
- Other Crop #3

The three “Other Crop” columns are provided for crops or roughages that do not fit into the corn, soybean or wheat categories. For example, the anticipated price per bushel received for oat sales could be recorded as “Other Crop #1.” In addition, prices entered in the “Other Crop” column(s) may be expressed in units other than dollars per bushel. The user, however, must be consistent throughout the input form in the manner in which the other crop categories are defined. Make sure that price/unit sales, inventory and production are all the same unit of measurement: bushels (bu.), pounds (lbs.), hundredweight (cwt.), or tons. Failure to maintain this consistency will lead to inaccurate output.

Note that there are two columns each for corn and soybeans; one is labeled “priced” and the other is labeled “unpriced.” “Unpriced” columns should be used to input estimated prices for the portion of the grain currently not covered by some type of contract. For those bushels that have been forward-priced, enter the net contracted price in the “priced” columns. For example, a forward soybean contract of \$6/bu. would be entered in the priced soybean column, while an estimated price of \$5.50 for soybeans sold on the cash market would be entered in the unpriced column

### **Section 2-2: Crop Inventory**

Information from this section is used to compute crop inventory values and derive the adjustments necessary to generate the projected income statement. This section is divided into two parts; one for grains and one for roughages. In both cases, the estimated per-unit values of each commodity are required as well as the actual quantity on hand.

The entries for the grain portion include beginning-of-year value per bushel, beginning quantity of bushels, and end-of-year value per bushel for each of the commodities produced. The ending inventory will automatically be calculated based on how much crop is produced, sold, and fed during the year. The user should enter only his or her portion of the inventory on hand. For example, if some grain is being stored that belongs to the landlord, do not include that portion in these inventory amounts.

**Note:** For any adjustments to inventory (example: seed beans), see the information about Section 3-6, “Inventory Adjustments”.

For roughages, enter the same information as for crops, except also include an estimate of ending inventory. Remember to use consistent crop names throughout the entire input sheet. For example, if alfalfa is indicated as roughage #2 on Page 1, then alfalfa inventory in this section also should correspond to roughage #2.

### **Section 2-3: Crop Sales Schedule**

This section is used to record the user’s projections of the number of bushels (tons) that will be sold in each month. Each column represents a different crop enterprise, while each line represents a different month.

Note that each column heading in Section 2-3 corresponds to the columns in Section 2-1. The bushels input in Section 2-3 and the corresponding price-per-bushel input in Section 2-1 are used to calculate the dollars of crop sales for each period. For example, wheat sales in Month 8 will be calculated by multiplying the wheat bushels entered in Month 8 by the wheat price entered in Quarter 3. As noted earlier, if units other than bushels are being used, be consistent with price/unit, production units and inventory units.

The crop sales section for unpriced commodities may be changed using

Load % Sales  
Calculator

. Typically, a user will define sales as a proportion of the crop harvested, instead of as specific units. Thus, when yields vary, sales are based on a pre-set proportion of the crop. To use the calculator, select the commodity to be sold. The total production for the commodity in the current year is displayed, as well as the percentage sold next to the corresponding month as entered in Section 2-3. Enter changes next to the corresponding month. The entry may be a percentage of total production or a total amount of units. Finally, select the button that represents how the sales should be calculated: **Enter as %** or **Enter as Values**.

After completing this section, carefully review estimated prices in Section 2-1 to ensure that prices are listed for each crop type indicated in Section 2-3.

**Section 2-4: Accrual and Financial Information**

This section is used to enter bank account information, operating loan information, and accrual balances. Each item of information in this section is described in detail below. All beginning balances should relate to the period designated as the “Beginning Cash Flow Date” on the “Cover Page” of the input forms.

**Section 2-4: Beginning Checking Balance**

Enter the checking account’s beginning balance in this space.

**Section 2-4: Minimum Checking Balance**

Many banks require that a minimum checking account balance be maintained. If the user’s checking account has a minimum balance or if the user does not want the balance to fall below a certain level, record that minimum amount here. The program will not allow the checking account balance to drop below this minimum.

**Section 2-4: Maximum Checking Balance**

The maximum checking balance amount indicates the checking account level that triggers excess cash to be transferred to the user’s savings account. If the ending checking account balance in any one month exceeds this number and the operating loan balance is zero, then cash will be transferred from checking to savings. Only the minimum checking balance will remain in the checking account.

**Section 2-4: Beginning Operating Loan Balance**

Enter the total balance of any current operating loans here. This balance will be reduced or increased each month as dictated by the cash remaining at the end of the period. This assumes that there are not fixed payments of principal and interest due on this loan. If the operating loan does have a fixed repayment schedule, use Section 4-3 “Loan Payment Schedule - Direct Entry” to record the information.

**Section 2-4: Beginning Operating Accrued Interest Balance**

The beginning operating accrued interest balance on the operating note must be recorded if an operating loan balance has been entered above. The beginning accrued interest balance is the amount of interest that has accumulated as of the first day of the planning period.

**Section 2-4: Operating Loan Interest Rate**

Record the interest rate that will be charged on the operating money borrowed during the planning year. This interest rate should be recorded even if the beginning operating loan balance is zero.

**Section 2-4: Current Savings Balance**

Record the savings account balance at the beginning of the planning period in this section.

**Section 2-4: Minimum Savings Balance**

If the savings account should not fall below a certain dollar amount, record that amount here.

**Section 2-4: Savings Interest Rate**

Enter the interest rate earned on any accumulated savings balances.

**Section 2-4: Month(s) Operating Interest To Be Paid**

The user has the option of designating the month or months during which the interest on the operating note will be paid. Place a "1" beside months that correspond to the months in which the interest should be paid. Interest will be accrued during the months in which no payment is indicated. Accrued interest balances at the end of the year will be reflected as adjustments on the projected income statement.

**Section 2-4: Estimated Depreciation**

Record the total expected depreciation for buildings, livestock, and equipment during the planning year.

**Section 2-4: Other Accrual Balances**

Estimate the value of any accounts receivable or payable that are expected at the beginning and end of the planning year. These items can be difficult to estimate. If the user feels that these balances will not change substantially during the year, it may be best to leave these lines blank. Also estimate beginning- and end-of-year prepaid expenses.

***Page 3: Livestock Information (Sections 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7)***

This section of the program gathers information regarding livestock enterprises. If the user does not raise any livestock, he or she should skip all Page 3 sections and start with Page 4, Section 4-1.

Sections 3-1 through 3-4 are used to gather information regarding livestock prices, inventory, timing and quantity of sales, and animal purchases. The remaining sections are used primarily for specifying feed requirements.

As it may have been apparent on the Page 1 "Crop Production Data" forms (Sections 1-1 through 1-4), a production plan may be helpful before completing the Livestock Sections. This includes knowing how much the user intends to produce, what the inventory is expected to be, when he or she expects to sell or

buy animals, and what prices he or she expects to receive during each quarter.

### **Section 3-1: Livestock Price Estimates**

This section contains the user's estimates of livestock and livestock product prices during each quarter of the planning period. Prices received for sales are recorded in the top half of this section while the prices paid for purchased animals are entered on the bottom half.

Start by recording the estimated sales prices for each quarter for the applicable classes of livestock. Note that all animal prices are per hundredweight (cwt.), with animal products priced as indicated in the respective column headings. If sales prices have been contracted for a portion of production, a weighted average of the contracted price and the expected market price should be entered.

Complete the bottom half with the expected purchase prices for livestock for each category.

### **Section 3-2: Livestock and Commercial Feed Inventory**

This section records the information needed to adjust the projected income statement for livestock and feed inventory changes. The value of inventory is calculated using the input of quantity and price for each type of livestock that the user has on inventory at the beginning and end of the planning period.

There are two columns each for the beginning and ending inventory information. Enter the per-hundredweight inventory value at the beginning of the year in the first column. This is the market price for that class of livestock on the date that the planning period is to begin. In the second column, enter the total hundredweight of livestock on inventory at this beginning date. Note that the total quantity is to be entered in hundredweight. For example: 150 head of hogs at 200 lbs. each is a total of 30,000 lbs and would be entered as 300 cwt. A worksheet to accumulate the weights and values of all livestock on hand will be needed to get the total weight and average value when livestock inventory includes animals of different ages, weights and values. The program multiplies total weight times average value to obtain total value.

Complete the next two columns in the same way. Use figures that reflect the anticipated prices and inventory at the end of the planning period. Unlike the grain enterprises, ending inventory quantities and values are not calculated for livestock. Under constant production schedules, the ending inventory can be simple to calculate, since it should be about the same as the beginning inventory except for price changes. If a change in the level of production is expected,

The following may help when considering all the factors that affect the ending inventory:

**Beginning Inventory (cwt.)**

- + **Cwt. Purchased**
- + **Cwt. Produced**
- **Cwt. Death Loss**
- **Cwt. Consumed**
- **Cwt. Sold**
- = **Ending Inventory (cwt.)**

At the bottom of this section is a line for recording the inventory of commercial feed. This includes purchased feeds - not grains and roughages - which are accounted for with crop inventory. Enter the quantity and price in terms of cwt. for the beginning and end of the period. Note that, if the ending inventory calculated by the program is less than the amount indicated in this section, additional feed will have to be purchased to make these amounts consistent.

**Section 3-3: Livestock Sales Schedule**

This section is used to estimate the quantity of each category of livestock sold each month. Note that the column headings are identical to those for livestock sales price estimates entered in Section 3-1. Total revenues for each period are calculated using the inputs from these two sections.

The units used can be either in number of head or in cwt. sold per period. If the "number of head" figure is used, a conversion factor must be included. This conversion factor simply indicates the number of cwt. per head sold. For example, a 225-lb. hog would have a conversion factor of 2.25, indicating that each head sold represents 2.25 cwt. This conversion factor is entered on the bottom line for each livestock category used. If sales are entered in cwt., no conversion factor is necessary.

Recheck all entries in this section and Section 3-1 to ensure that the necessary prices have been indicated. Be sure that for each month in which sales have been recorded, a corresponding price has been entered. Any inconsistencies here will result in the improper calculation of sales amounts.

**Section 3-4: Livestock Purchases Schedule**

This section is very similar to the previous one, except that here the timing and quantity of livestock purchases will be estimated rather than sales. Note that the column headings correspond to the bottom half of Section 3-1. Enter the expected purchases on a number-of-head or a per-cwt. basis. Remember that a conversion factor must be entered if the number of head sold are being entered. Check entries here with those in Section 3-1 to ensure consistency.

### **Section 3-5: Feed Usage Requirements**

Use Sections 3-5 through 3-7 to record the expected feed usage. To allow flexibility, different methods of entering this data are available. For that reason, do not use all of the sections included on this page.

Use Section 3-5 to input feed consumption on a unit of feed required per unit of animal production. If this method is chosen, the top part should be used to enter the bushels of corn and/or pounds of commercial feed required to produce the indicated amount of animal product (i.e., cwt. or dozen). The last line on the top portion is where the cost of the commercial feed per pound can be recorded.

In the bottom part of Section 3-5 specify the feeding schedule if consumption is not expected to be uniform each month. If the feeding schedule is expected to be uniform, skip this part. If there will be a substantial variation, enter the percent of the total consumption expected to occur in the respective periods. Add up the columns when finished to be sure they total 100 percent.

### **Section 3-6: Inventory Adjustments**

This section may be used instead of Section 3-5. Record here the total amount of feed expected to be fed for the year instead of on a per-unit-produced basis. Record the total amount of each grain or roughage type on the blanks provided. Be careful to use the same units as were used in the production section. For example, if tons were used in the production section, tons should be used here as well. Also, be consistent when using the "Other Crop" categories. If "Other Crop #1" was alfalfa earlier, it be alfalfa here too.

After this data are entered, this section will reflect feed usage. If this causes more feed to be fed than is on inventory, the inventory amount will show a negative figure. This was allowed to account for those situations where the user may want the inventory to be negative. For example, a hog finisher may feed a portion of the landlord's grain, but not repay it until after the end of the year.

This section may also be used to make inventory adjustments that are not feed related. For instance, if a certain amount of seed beans from inventory is normally used, enter the number of bushels in this section.

**Note:** Positive entries will be treated as subtractions from the inventory.

### **Section 3-7: Feed Purchases**

This section allows the user to project planned purchases of corn and other feeds. In the first column, record the number of additional bushels of corn to be purchased on the line corresponding to the appropriate period.

The “Other Feed Purchases \$” column can be used to:

- Enter miscellaneous feed purchases not defined in the previous sections, i.e., feed for horses, sheep, etc.
- Manually enter estimated monthly feed purchases in addition to Section 3-5, where lbs. of commercial feed per cwt. produced were entered.

**Note:** The “Other Feed Purchases \$” entry should be made in terms of the dollar value of the purchases, not the number of units purchased.

A review of the different options available for entering feed usage in Sections 3-5 through 3-7 follows.

### **Section 3-5 Through 3-7: Feed Purchases – Corn Usage**

To enter corn usage, choose between using either Section 3-5 or 3-6. Do not enter information in both sections.

In brief, use:

**Section 3-5** and input bushels of corn to be fed per cwt. of livestock produced.

**Or**

**Section 3-6** and input total bushels of corn to be fed in the “Inventory Adjustments” section for the planning year.

### **Section 3-5 Through 3-7: Feed Purchases – Commercial Feed Purchases**

To record commercial feed purchases, choose between using either Section 3-5 or Section 3-7. Do not enter information in both sections.

In brief, use:

**Section 3-5** and input lbs. of feed to be fed per cwt. of livestock produced along with a price per pound of feed. The computer program will indicate when purchased feed is needed.

**Or**

**Section 3-7** and input estimated dollars as “Other Feed Purchases \$” for each month. This figure could be used to enter information about oats, hay, etc., that were not accounted for in “commercial feed” in section 3-5.

**Page 4: Unallocated Items and Loan Information  
(Sections 4-1, 4-2, 4-3, 4-4, 4-5)**

The previous pages of the input forms have involved information that has been specific to individual enterprises. In Page 4, however, information about the undistributed items associated with total-farm and non-farm enterprises is recorded. This includes income and expense categories as well as information pertaining to any outstanding loans.

**Section 4-1: Undistributed Costs**

Record total farm and non-farm expenses in Section 4-1. For each of the expenses, enter the total amount for the year in the first column. In the subsequent columns, enter the percent that will be incurred during each month. If the costs will be distributed evenly throughout the year, put a "1" in the column headed with an "A" and leave the rest of the columns on that line blank. This indicates to the program that the total across all 12 months should be evenly allocated.

**Note:** Expense titles marked with an asterisk (\*) denote expenses that may have been previously entered on other Pages. Be careful not to enter the per-unit cost of such items on Page 1 and then again in Section 4-1. For example, suppose \$5 per acre were entered for crop insurance in Section 1-2. Only the amount of insurance that was not accounted for previously should be entered, such as the expense for automobile or liability insurance, in Section 4-1.

**Check Total** is an optional line. Use it to be sure all expenses are accounted for or have been entered correctly into the computer. This total can be verified with the total generated by the computer. When finished recording the amounts for all expenses, go back and check to see that each line has a total amount entered with costs allocated in one of the following ways:

In percentages in the appropriate periods. (Be sure all lines add up to 100%.)

With a "1" in the second column indicating that the costs will be distributed evenly throughout the year.

**Section 4-2: Other Income**

In this section, cash receipts not previously included on the crop or livestock sections of the previous input pages are recorded. Estimate the dollars that will be received for each category in the column corresponding to the appropriate period.

The top line of this section, "Government Payments," is included so that the total amount received in government payments may be entered. However, if entering government payments for each unit of production is preferred, this may be done

in Page 5. The bottom line of this section, “Borrowed Money,” is included so that the borrowing of any additional funds throughout the year may be projected. Do not include estimated borrowing for capital purchases or operating expenses. Money borrowed for capital purchases is recorded in Section 4-5. Operating funds are borrowed and repaid monthly based on available cash.

### **Section 4-3: Scheduled Loan Payment (Direct Entry)**

This section provides space to record information regarding any loans that are outstanding and are not made on a straight amortization basis. (Section 4-4 is used for loans with a constant interest rate and straight amortization.)

Room is provided for one short-term and 10 intermediate- or long-term loans in Section 4-3. If the user has more loans than space allows, combine similar ones and enter them on one line. Also, do not enter information here regarding the operating loan entered in Section 2-4. Use the first line for any additional short-term loans.

Enter a description for each loan in the first column, followed by the balance at the beginning of the year in the next column. Use the third column to record the interest rate currently charged. In the column titled “Yrs Out,” enter the number of years that remain before the loan will be paid off. Next, enter the estimated accrued interest for the beginning and end of the year. In the appropriate period(s), enter the amount of the principal and interest that will be paid during the planning year.

**Note:** All loan payments on Lines 2 through 16 in Sections 4-3 and 4-4 will be treated as intermediate- and long-term obligations when the program calculates debt-repayment capacity. Do not include any short-term notes (annual CCC notes, feeder livestock notes, etc.) on these lines. These items should be combined and listed on Line 1 of Section 4-3 or included in the operating loan balance of Section 2-4. A more detailed discussion on capital debt repayment capacity is found in the “Interpreting Cash Flow Output” section of this document.

### **Section 4-4: Loan Payment Schedule (Straight Amortization)**

Section 4-4 also can be used to enter loan information. In this case, the computer will calculate payment schedules for straight amortization loans. This section will work only if the loan is amortized using a constant interest rate. If this is not the case, information should be entered in Section 4-3.

Section 4-4 allows five separate loans to be recorded on Lines 12 through 16. For each loan, enter the beginning balance, the interest rate, the number of years outstanding, the payment type (12, 4, 2, 1 see below), and the number of the month in which the first payment will be made. Payment types are defined as:

- 12 = monthly payments (12 payments/year).
- 4 = quarterly payments (4 payments/year).
- 2 = semi-annual payments (2 payments/year).
- 1 = annual payment (1 payment/year).

### **Section 4-5: Capital Purchases**

Complete Section 4-5 only if one or more capital purchases are anticipated during the upcoming year. For each capital item to be purchased, the user must enter a description of the item, the number of the month in which the purchase will be made, the total cash difference to be paid (cost minus the trade), and the total amount financed. Using these inputs, the program will show the funds borrowed and the amount of the machinery/building purchase in the appropriate month of the cash flow. For example:

<b>Price of New Tractor</b>	<b>\$30,000</b>
<b>Trade Value of Old Tractor</b>	<b>\$10,000</b>
<b>Total Cash Difference</b>	<b>\$20,000</b>
<b>Down Payment</b>	<b>\$5,000</b>
<b>Amount Financed</b>	<b>\$15,000</b>

**Note:** Section 4-5 does not allow the user to enter any anticipated loan payments or changes in accrued interest in the existing planning year for purchased capital items. The payment schedule should be entered as a direct loan in Section 4-3. No beginning balance should be entered in the loan section for the capital item. If the beginning balance is recorded, the computer program will include this amount in the total debt outstanding at the beginning of the year.

### **Page 5: Government Payments**

This section of the program gathers information regarding the issuance of government payments. If no government payments are received, skip the Page 5 input form.

Page 5 is used to gather information regarding the crop, acreage, yield, amount of government payments per bushel, as well as the operator's share of the crops and payments. Page 5 contains two sections: Government Program Payments Calculator and Loan Deficiency Payment (LDP) Transactions.

The "Government Program Payments Calculator" section is used to record government payments. For each crop, list the parcels of land that receive government payments. For each parcel, enter the acreage, the percentage of the user's share in the land, program yield, acreage percent, and the payment rate per bushel. Also, record the month and amount received for the payments. The local FSA Office calculates the program yield for each farm and should be

contacted for this information. The government determines the acreage percent. It is a percentage of the program acres to which assistance will be paid.

LDPs can be recorded in the “Loan Deficiency Payment (LDP) Transactions” section. For each commodity, record the number of bushels sold per month, along with the LDP per bushel.’

## **Example**

### **Introduction**

This section of the User’s Guide offers a detailed look at the process of completing the paper input forms and how the Cash Flow Planning Program handles the data after it has been input.

This section begins with a narrative description of the farming plans for a fictitious farming operation owned by John and Sally Smith. It contains the output that the Smiths could generate after entering the data from the paper input forms into the computer program.

**Note:** The user is presumed to have a good understanding of the financial concepts associated with the output of the computer program in order to use the output in making proper management decisions.

John and Sally Smith operate a medium-sized farm. They raise corn, soybeans, and wheat and have a farrow-to-finish hog operation. They hope to use the Cash Flow Planning Program to make various management decisions during the upcoming year. The Smith’s plans are described in detail on the following pages.

The sample output included at the end of this section consists of a projected cash flow, a projected income statement, and a financial planning summary.

### **Farm Description**

John and Sally Smith own 220 acres and rent an additional 650 acres. Their lease arrangements are as follows:

**Landlord 1** The landlord and the couple share a 50/50 basic crop-share lease.

**Landlord 2** The landowner pays 40% of the direct crop expense. The Smiths pay 60% of the direct crop expenses and get 60% of the crop, but pay all seed costs.

**Landlord 3** The landowner pays 33% of the direct crop expense. The Smiths pay 67% of the direct crop expenses and get 67% of the crop

The Smith’s cropping plan for the 870 acres is:

		<u>Acres</u>	
	<b>Corn</b>	<b>Beans</b>	<b>Wheat</b>
Owned	120	60	40
Landlord 1	120	200	0
Landlord 2	70	80	0
Landlord 3	180	0	0

Their estimated total direct costs (including landowner's share) for each crop are:

		<u>\$/Acre</u>	
	<b>Corn</b>	<b>Beans</b>	<b>Wheat</b>
Fertilizer	51	20	34
Herbicides	25	34	0
Insecticide	4	0	0
Seed	33	18	15
Dry and Store	25	7	8
Crop Insurance	6	4	3

The Smiths have estimated the specific time of payment of the costs as:

**Corn:**

Fertilizer: 30% in April, 30% in May, 40% in November.

Herbicide: 40% in April, 40% in May, 20% in June.

Insecticide: 40% in April, 40% in May, 20% in June.

Seed: All paid in March.

Dry and Store: All paid in December.

Crop Insurance: 50% in March, 50% in October.

**Beans:**

Fertilizer: 30% in April, 30% in May, 40% in November.

Herbicide: 35% in April, 35% in May, 30% in June.

Seed: All paid in April.

Dry and Store: All paid in December.

Crop Insurance: 50% in April, 50% in October.

**Wheat**

Fertilizer: All paid in November.

Seed: All paid in December.

Dry and Store: All paid in September.

Crop Insurance: 50% in April, 50% in October.

Wheat should be harvested in July. All beans are normally harvested in September. Corn is harvested in October. Estimated yields are as follows:

**Yield – Bushels/Acre**

	<b>Corn</b>	<b>Beans</b>	<b>Wheat</b>
Owned	145	50	65
Landlord 1	165	45	0
Landlord 2	155	50	0
Landlord 3	160	0	0

**Crop Price Estimates**

John and Sally Smith anticipate a corn market price of \$2.09/bu. during the first half of the year and \$2.26/bu. for the last half of the year. They anticipate a soybean market price of \$4.20/bu in the first quarter of the year, \$4.35/bu. during the second quarter, and \$4.50/bu. during the last half of the year. They use \$2.85 as their annual estimated wheat price per bushel.

The Smiths have 7,000 bu. of corn priced at \$2.12/bu. to be delivered in January, and another 4,000 bu. of soybeans priced at \$4.22/bu. to be delivered in February.

**Crop Inventory**

On January 1, the Smiths had 20,100 bu. of corn and 5,250 bu. of soybeans in inventory. Beginning inventory prices are \$2.07/bu. for corn and \$4.19/bu. for beans. Ending inventory prices are \$2.26/bu. for corn and \$4.50/bu. for soybeans. There are 500 bu. of wheat in inventory on January 1. The beginning inventory price for wheat is \$2.85/bu.; ending inventory value is set at \$2.85/bu.

**Crop Sales Schedule**

The Smith's marketing plan for crops not already priced is as follows.

**Bushels of Crop to be Sold**

	<b>Corn</b>	<b>Beans</b>	<b>Wheat</b>
January	0	1,250	0
August	0	0	1,840
October	4,000	0	0
November	2,000	4,000	0
December	10,000	2,160	0

**Bank Account Information and Accrual Adjustment**

At the beginning of the year, the Smith's farm checking-account balance was \$2,500. Their bank requires that they maintain at least \$2,000 in the account.

They maintain a maximum of \$2,500. Any additional balance is used to pay down the principal on loans. They have a \$5,000 savings-account balance that earns 5% interest and wish to maintain that balance.

In addition, the couple has an existing operating loan balance on January 1 of \$75,000. The current interest rate on the operating loan is 10%. Interest amounting to \$3,125 had accrued on this loan as of January 1. The Smiths normally pay the operating interest during the months of March and September.

The Smith's estimated depreciation is \$35,500 for the coming year. They expect no substantial change in prepaid expenses or accounts receivable or payable from the beginning to the end of the year.

### **Livestock Price Estimates**

John Smith estimates that market (finished) hog prices will be \$40/cwt. during the first quarter, \$52.00/cwt. during the second quarter, \$45/cwt. during the third quarter, and \$40/cwt. during the fourth quarter.

In addition, some old sows and boars will be sold and replaced with new breeding stock. The Smiths estimate that they will receive \$33/cwt. for any breeding stock sold throughout the year. New boars will be purchased at \$120/cwt.

### **Livestock Sales Schedule**

Using last year's livestock sales as a guide, Sally Smith has estimated the number of head of finished hogs to be sold each month:

<b>Month</b>	<b>Head</b>
January	123
February	73
March	104
April	120
May	120
June	108
July	88
August	59
September	73
October	111
November	104
December	113

She has estimated that the above hogs to be sold will weigh an average of 240 lbs.

In addition to the finished hogs sold above, the Smiths also will sell some

breeding stock and will replace this breeding stock with the purchase of new boars or sows. The breeding stock to be sold is:

<b>Month</b>	<b><u>Lbs.</u></b>
February	1,250
May	1,250
August	1,250

### **Livestock Purchases**

To replace the breeding stock sold above, the Smiths plan to purchase additional breeding hogs as follows:

<b>Month</b>	<b>Head</b>
March	3
June	4
November	4

Sally Smith estimates that each head will weigh an average of 300 lbs.

### **Livestock Inventory**

At the beginning of the year, the Smiths estimated that they had 65,000 lbs. of market hogs and 42,000 lbs. of breeding hogs on hand. Since they do not plan to increase or reduce livestock production, they estimate that the inventories will be the same at the end of the year.

Assume that the market-hog inventory is worth \$37/cwt. at the beginning of the year and \$40/cwt. at the end of the year. The breeding-hog inventory is assumed to be worth \$33/cwt. throughout the year.

### **Livestock Feed Usage**

The Smith's feed-usage rates per unit of hogs produced are:

- 5.85 bu. of corn/cwt. of hogs produced.
- 90 lbs. of commercial feed/cwt. of hogs produced.

The commercial feed will cost \$0.25/lb. They estimate that the feed usage will be approximately the same during each month of the year. In April and October, the Smiths will buy \$3,000 of feed additives not included in the rates above. In addition, they plan on feeding 1,000 bu. of their wheat during the year. John Smith estimates that they will need to buy 2,000 bu. of corn in August and an additional 1,000 bu. in September. He should be able to buy the corn for \$2.20/bu.

**Undistributed Costs**

The Smiths estimated the following costs for the coming year:

<b>Undistributed Cost</b>	<b>Total \$/Year</b>	<b>Payment Schedule</b>
Fuel & Oil	\$ 9,700	10% in Mar., 25% in Apr., 25% in May, 10% in June, 30% in Oct.
Hired Labor	\$18,000	25% in Apr., 25% in May, 25% in Sep., 25% in Oct.
Real Estate/ Prop. Taxes	\$ 4,450	50 % in June, 50% in Oct.
Utilities	\$ 6,500	Will pay approximately the same each month.
Insurance	\$ 5,300	25% in Apr., 25% in Jun., 25% in Aug., 25% in Dec.
Misc.	\$ 800	Will pay approximately the same each month.
Livestock Expenses	\$ 9,000	Will pay approximately the same each month
Machinery Repairs	\$17,000	25% in May, 25% in June, 50% in Oct.
Auto	\$ 2,500	Will pay approximately the same each month.
Building and Fences	\$ 2,000	50% in Mar., 50% in Aug.
Non-Farm Business Expenses	\$ 1,000	25% in Feb., 25% in Mar., 25 % in Nov., 25% in Dec.
Income Tax & Social Security	\$ 21,000	Will pay all during March.
Medicine, Insurance month.& Drugs	\$ 1,600	Will pay approximately the same each
Life Insurance/ Disability	\$ 1,200	Will pay approximately the same each month.
Family Living	\$36,000	Will pay approximately the same each month.
Check Total	\$116,050	

### **Other Income**

John Smith's other sources of income include \$5,000 and \$8,000 for custom work in May and October as well as \$10,200 of non-farm income in August and \$1,500 of dividend income in both March and August. In addition, his wife earns \$4,000 after-tax income per month.

### **Loan Payment Schedule**

In addition to the Smith's operating loan discussed earlier, they have five additional outstanding loans. The couple has estimated the principal and interest payments for the upcoming year for each loan.

**Planter** Had a beginning balance on January 1 of \$1,922 with \$190 accrued interest. The current interest rate is 10% and the balance is due during the current year. John Smith estimates that they will pay \$195 in interest and \$1,922 in principal during the month of January.

**Combine** Had a beginning balance on January 1 of \$61,234 with \$1,531 accrued interest. The current interest rate is 10% and the balance is due in three years. The Smiths estimate that they will pay \$6,123 in interest and \$20,411 in principal during the month of October and have \$1,021 accrued interest at the end of the year.

**Bin Loan** Had a beginning balance on January 1 of \$3,069 with \$191 accrued interest. The current interest rate is 7% and the couple has two years left in which to repay the debt. They estimate that they will pay \$327 in interest and \$1,535 in principal during the month of August and have \$45 accrued interest at the end of the year.

**Refinance** Had a beginning balance on January 1 of \$50,000 with \$2,500 accrued interest. The current interest rate is 9.5% and they have 10 years left in which to repay that debt. John Smith estimates that they will pay \$5,000 in principal during both March and September, and pay \$3,000 in interest in March and \$1,755 in September. Their accrued interest on December 31 will be \$1,200.

**FCS Loan** Had a beginning balance on January 1 of \$152,250 with \$3,100 accrued interest. The current interest rate is 8% and they have 25 years left in which to repay the debt. The Smiths pay both principal and interest on this loan twice each year during the months of March and September. They estimate that the accrued interest on this note will be \$3,000 at the end of the year.

### **Estimated Capital Purchases**

The Smiths will buy some hog feeders in December for approximately \$3,500. This purchase will be made directly from funds in the checking account. They also plan to purchase a honey wagon for \$10,000 in July. Their down payment will be \$2,000 with no additional payment for 12 months. Loan terms are 7% for seven years.

### **Farm Government Payments**

The Smiths receive **Government Payments** based on the acreage and yield information below. The April payment for corn is 21¢/bu. The January payment for soybeans is 14¢/bu. The August payment for wheat is 40¢/bu.

#### **Base Acres**

	<b>Corn</b>	<b>Soybeans</b>	<b>Wheat</b>
Owned	60	120	40
Landlord 1	60	200	0
Landlord 2	35	80	0
Landlord 3	90	0	0

#### **Program Yields**

	<b>Corn</b>	<b>Soybeans</b>	<b>Wheat</b>
Owned	130	50	60
Landlord 1	150	45	0
Landlord 2	140	50	0
Landlord 3	145	0	0

They receive an LDP for corn, soybeans, and wheat produced. For their crop this year, they receive: 17¢/bu. of corn in April, \$1.16/bu. of soybeans in January, and 2¢/bu. of wheat in August.