

Farm MANAGEment Minute

A bi-monthly newsletter from the Department of Agricultural and Resource Economics

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USDA 2013 farm income/expense projections

USDA recently released its expectations for net farm income for 2013. They forecast net farm income at \$131 billion making it the most profitable year since 1973 after adjusting for inflation. Net cash income, what remains from commodity sales over the year after paying cash farm expenses, is expected to be \$129.7 billion. This is a reduction of about 3% from 2012. If the projection is correct, 2013 will be the fourth time that net cash income was over \$100 billion since 1973 when adjusting for inflation.

Regionally, net cash farm income for 2013 is expected to be about 18% lower around the Mississippi Portal due to lower income for cotton and rice producers as well as decreases for corn and soybean farms. Primary corn and soybean-growing areas will see about a 2% fall from 2012. Net cash farm income is expected to be about 2% lower for the Appalachian region as well, but poultry gains will help buoy the expected decrease.

Farm expenses are forecast to be \$352 billion for 2013—the highest on record in both nominal and inflation-adjusted terms. Other than in 2009, farm expenses have increased every year since 2002. Fuel and fertilizer expenses are expected to be lower in 2013 while land rent and labor bills are expected to increase from 2012.

USDA expects farm assets, debt, and equity to all increase in 2013. A major reason for the increase is due to increases in farmland values, which are expected to increase faster than farm asset debt. Both the debt-to-asset and debt-to-equity ratios for the farm sector are expected to be at record lows for 2013.

Livestock and crop production are expected to increase about 6%. In addition, livestock receipts are expected to increase about 6% while crop receipts are expected to decrease about 3% due to large crop inventories at the end of 2013 and depressed prices.

The charts in Figures 1 and 2 below show the value of production from 2009 to 2013 for livestock and crops, respectively. Dairy, broilers, and hogs are expected to have significantly higher income in 2013, while cattle and calves are expected to increase slightly. Corn, soybean, and vegetable and melon incomes are expected to increase in 2013 while income for cotton, fruits and nuts, and wheat are expected to decrease from 2012.

Figure 3 below shows farm production expenses from 1970 to 2013 in nominal and 2009 dollars. It shows that, in nominal terms, while expenses are expected to increase in 2013, the rate of increase is lower than that from 2011 to 2012.

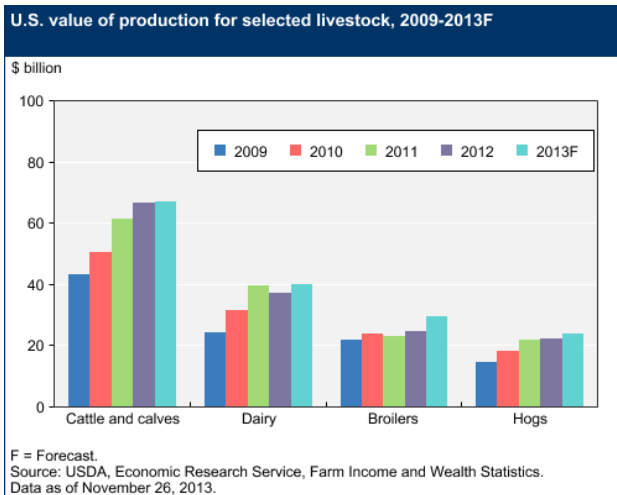


Figure 1.

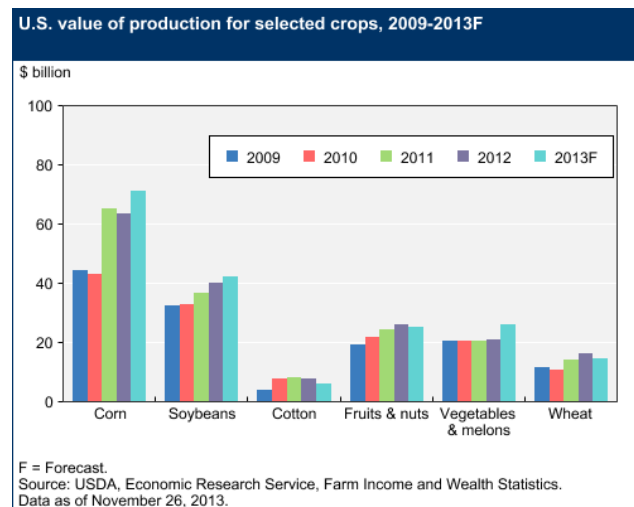


Figure 2.

Figure 4 shows the portion of production expenses spent on major expense categories from 2003 to 2013. Marketing, storage, and transportation expenses are expected to increase due to large 2013 crop production. Price declines for many inputs, particularly fertilizer, fuel, real estate interest, and capital usage will help keep the rate of increase in overall expenses lower than it might otherwise be. Seed and pesticide prices are expected to be higher for 2013. Livestock and poultry purchases, along with feed prices, are expected to increase livestock expenses 1.8%. While feed prices are lower, demand for animals will raise purchase prices for those wanting to expand production.

Although net cash farm income is expected to be high for 2013, it is expected to be somewhat lower for 2013 than it was in 2012. This is due to lower commodity prices and increased expenses. 2014 may also see decreased income as prices fall and expenses continue to increase. More information and specific details about the USDA forecast are available at:

<http://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances.aspx#.UpynXMRDvK0>

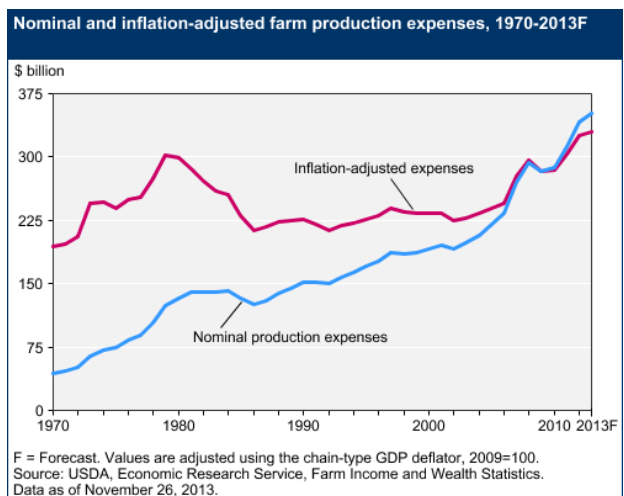


Figure 3.

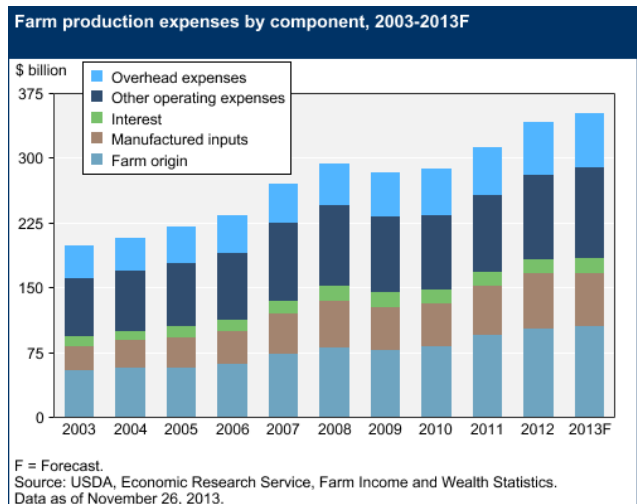


Figure 4.

Accrual versus cash accounting

As 2013 draws to a close, most people reflect on what type of year it was on both a personal and business level. For farmers, this may mean assessing yields, prices, and weather over the past growing season. As farmers are beginning to compare costs and revenues over the year, it is the perfect time for a refresher on accrual and cash accounting and the need for developing sound accounting practices.

Too often, people analyze their annual financial returns by simply looking in the checkbook or bank account to see what was spent and what was earned over the year. A problem with this is that it does not necessarily match revenues earned with expenses incurred to produce that revenue. In addition, cash accounting does not account for inventory changes accurately. This brief article addresses the necessity of relating revenues and expenses to understand costs of production and economic profitability over the year. Understanding the need to relate revenues and costs can help producers understand how managing finances for tax purposes does not necessarily provide adequate records for financial analysis and examining productive efficiency.

Accrual accounting is defined as matching revenues with the expenses incurred to produce the revenue. Cash accounting is simply paying expenses when they are due and recording revenue whenever commodities are sold. However, this can create problems when computing the profits from producing the commodity.

Assume the expenses to produce a crop are incurred in Year 1. If that crop is stored and not sold until Year 2, cash accounting will show a large loss on the books. In Year 2, it may be difficult to match crop revenues with the

expenses for that specific crop and not mix the revenues with the second year's crop. This creates difficulties when comparing profitability from one year to the next, showing why cash accounting can be used for calculating tax liabilities (and may be preferred), but not for farm financial analysis.

Consider the example transactions in Table 1 and profit changes under cash and accrual accounting methods in Table 2 below. The example shows the differences in net farm profit when using cash or accrual accounting. Expenses purchased and paid for in 2012 but actually used to produce the crop in 2013 should be charged to the 2013 crop. In the example, the \$10,000 fertilizer bill paid in 2012 is not charged to the 2013 crop, making it difficult to show how much money may be spent on 2013's crop. On the revenue side, since only half of the crop was sold and cash received in 2013, income is vastly understated. The value of grain in inventory should be recorded as part of 2013's income. The drying charge paid in 2014 should be charged to 2013 expenses. This shows that three years' of transactions are necessary to report income for 2013, but the additional record keeping provides a more accurate accounting of 2013 crop income and expenses.

While accrual accounting requires more intensive record keeping and accounting knowledge, it provides a truer representation of the farm's profit for 2013 than cash accounting provides. The Farm Financial Standards Council (FFSC) recommends that farmers use accrual accounting to match expenses with revenues. This allows farmers to conduct a more accurate analysis of annual revenues and expenses than simple cash accounting.

Table 1. Cash versus accrual accounting transactions.

Fall 2012	Prepay fertilizer for 2013 crop: \$10,000.
Spring 2013	Purchase and pay for seed, chemicals, fuel for 2013 crop: \$20,000.
Fall 2013	Order and charge 2013 drying fuel to account to be paid in 2014: \$2,000.
Fall 2013	Harvest and sell half of crop: \$50,000. Remaining crop is stored and valued at \$50,000.
Spring 2014	Pay drying fuel bill: \$2,000.

Table 2. Net farm income comparison of cash versus accrual accounting.

	2013 Profit	
	Cash Accounting	Accrual Accounting
Cash grain sales	50,000	50,000
Grain inventory increase		50,000
Total revenue	50,000	100,000
Fertilizer		10,000
Seed, chemicals, fuel	20,000	20,000
Drying fuel		2,000
Total expenses	<u>20,000</u>	<u>32,000</u>
Net farm income	30,000	68,000

Concluding thoughts

If you have any comments, questions, or suggestions, please contact Jason Fewell, Coordinator of the MANAGE Program in the Department of Agricultural and Resource Economics at the University of Tennessee at (865) 974-7410 or email jfewell@utk.edu. If you have specific problems you think would be useful to include in a future issue, we would be happy writing about it.

Merry Christmas and Happy New Year!



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