

## New Loan Payment Calculator Tool Launched

**Jessica Groskopf**

Extension Educator and Agricultural Economist

Department of Agricultural Economics, University of Nebraska-Lincoln

**June 12, 2023**

*CAP Series 23-0604*

The Center for Ag Profitability has released its [Loan Payment Calculator](#), a web-based tool that makes it easy to calculate annual loan payments. Users must enter the total purchase amount, down payment amount, annual interest rate (APR), duration in years, and the starting year of the loan. The calculator tool allows users to download the payment schedule, also called amortization, as a PDF or CSV file.

### Understanding long-term loans: principal and interest

Long-term loans, such as farmland mortgages, are often paid on an annual basis. Loan payments consist of principal and interest. The principal refers to the amount of money borrowed that must be paid back. Each principal payment reduces the loan balance. Interest is essentially the fee charged for borrowing money. Interest is calculated on the remaining principal balance of the loan. Interest payments do not reduce the loan balance.

### Using the even payment method

The calculator determines payments using the even payment method. Each year's total payment is constant, while the principal and interest amounts vary by payment. Over the life of the loan, the amount of interest paid decreases while the amount of principal paid increases.

Let's say a farmer wants to borrow \$100,000. Their bank is offering a 7% annual fixed interest rate for 7 years. The calculator determines that the amount of the annual payment will be \$18,555.32. Each year, the amount of principal and interest per payment changes even though the total amount of the payment stays the same, as shown in Table 1.

Table 1. Example Loan Repayment Schedule

Year	Annual payment	Interest	Principal	Balance
Loan Begging Balance				\$100,000.00
2023	\$18,555.32	\$7,000.00	\$11,555.32	\$88,444.68
2024	\$18,555.32	\$6,191.13	\$12,364.19	\$76,080.48
2025	\$18,555.32	\$5,325.63	\$13,229.69	\$62,850.80
2026	\$18,555.32	\$4,399.56	\$14,155.77	\$48,695.03
2027	\$18,555.32	\$3,408.65	\$15,146.67	\$33,548.36
2028	\$18,555.32	\$2,348.39	\$16,206.94	\$17,341.42
2029	\$18,555.32	\$1,213.90	\$17,341.42	\$0.00

The most common use for this calculator would be to estimate a loan repayment schedule for a new loan. The user could also compare different loan terms, such as changes in the amount of the down payment, annual interest rates, or loan length.

Notice: Actual payment rates may vary. Lenders may use different calculation methods (level principal payments or balloon payments) to determine annual payment rates. Review your loan documents carefully.

Cite this work:

Groskopf, J. "New Loan Payment Calculator Tool Launched." *CAP Series 23-0604*, Center for Agricultural Profitability, University of Nebraska-Lincoln, June 12, 2023. DOI: [10.32873/unl.dc.cap007](https://doi.org/10.32873/unl.dc.cap007).