Raised Breeding Cow Record and Depreciation Calculator
Management Accounting

Objective

A raised breeding cow record and depreciation calculator is provided to facilitate maintenance of data for implementation of management accounting (MA). In the calculator, groups of cows are identified and depreciation calculated by the year that their replacement production costs are capitalized. Depreciation of breeding females begins the year after capitalization of replacement heifer costs takes place. In other words replacement costs are inventoried, accumulated until the beginning of the fiscal year that they wean their first calf. In QBPro it is necessary to set up a class to accumulate the replacement heifer costs that will be capitalized. A straight-line depreciation is calculated and the depreciable basis is the cost minus an estimated salvage value. To implement the MA depreciation an expected productive life must be chosen as well as salvage value. Breeding cows are identified by the year group (year heifers are weaned) for the use of this procedure. As raised cows are removed, (sales or death loss) the number of cows that remain on the schedule are reduced. The spreadsheet will also do the necessary reduction is original cost, accumulated depreciation and calculate the new book value. The actual journal transactions for QBPro are generated by the spreadsheet.

Recall that when using cash methods of accounting for IRS purpose replacement costs are expensed. It is best to keep this raised cattle depreciation and book value information separate from purchased information, as it will be confusing for income statement depreciation and balance sheet preparation. Purchases breeding cattle information should be maintained on the business depreciation schedule.

Input Data Required

For those where capitalization of costs has not taken place the original herd cost depreciable life, and salvage value will have to be estimated. An estimated average cost can be used as a starting point. The productive life and salvage value should to be chosen to minimize the capital gain (loss) from sales or the net cash sales minus the remaining basis or which is the remaining book value or cost of sales (COS). If there are substantial capital gains this means that annual depreciation has been underestimated and net income over stated. When calculation the useful life of cows it is best to use a weighted average life, (head times age divided by total head) rather than using the age of the oldest cows. Many cows are culled out early in their life meaning the average productive life of breeding cows is 5-7 years.

Breeding cows are identified in the year they are capitalized, start the depreciation, then the user only must maintain the data on the cow removal from culling or death loss.

**Specific Data – Breed Cow Inventory**

The first sheet is used to maintain historical raised breeding cow data that enter and taken out of breeding herd. Cows are identified by the year they are weaned and the year they enter the breeding herd. To simplify data recording cows enter the breeding herd (raised capitalized cost) at the end of the year. These are first calf heifers with calves or bred heifers that are expected to wean a calf the next fiscal year. Depreciation is not taken the year the bred or first calf heifer enters the herd.

The commutative changes record sales and death loss for each age group of cows in the herd. Cows added to the herd during the fiscal year are also recorded.

The second sheet uses the historical data and initial total capitalized cost, estimated life and salvage value date to make the necessary depreciation calculations. This data only has to be entered when cows are added to the herd.

For operations just beginning to capitalize raised replacement the entire herd can be recorded as coming in (initial value) the previous fiscal year and an average cost value, life and salvage value.

**Formulas**

There are several formulas used in the depreciation spreadsheet are presented below that are helpful to understand calculated values all transactions are presented in the sheets labeled accounting transactions and the purchased bull accounting are illustrated.

**Basic Equations**

\[ \text{Initial Cost} - \text{Accumulated Depreciation} = \text{Basis or Book Value} \]

\[ \text{Annual Depreciation} = \frac{(\text{Initial Cost} - \text{Salvage Value})}{\text{Years of Life}} \]

**Accounting Relationships**

\[ \text{Capital Gain (Loss)} = \text{Initial Cost} - \text{Accumulated Depreciation} + \text{Net Sales Income} \]

\[ \text{Capital Gain (Loss)} = \text{Sales Income} - \text{Basis} \]

In the process of completing the journal entries for a cow sale the initial cost is reduced (credit to initial cost), accumulated depreciation is reduced, (debit to accumulated depreciation), cattle sales are increased (debit to this revenue account) and is the cash generated (debit to cash). The remaining basis in the cow sold (debit to basis in cull cows sold). The gain (loss) is calculated and reported in the income statement.

Annual depreciation is recorded by adding the current year depreciation to accumulated depreciation (credit to accumulated depreciation) and added to the depreciation cost (debit) that is reported in the income statement.
Reports Generated

This spreadsheet reports the data on raised cows for the management accounting income statement (depreciation, remaining basis COS, capital gain or loss) and the balance sheet beginning and ending valuation. The items are shown the boxed area at the top of the page and in the page that follows that presents the data for the journal entries.

The journal entries used in quick books for the different accounts are calculate and presented in the third sheet. Note that the accounts follow the recommended MA chart of accounts. The actual capitalized replacement costs are recorded in this sheet and the appropriate accounts are presented to record these values.

A final sheet is presented that illustrates the QBPro transactions for a purchases bull which would be on the regular business depreciation schedule.