Factors in calculating cost of production

With the planting and growing season a few months away, it is a good time to begin to estimate cost of production for crops you plan to grow in 2013. Several methods can be used to estimate cost of production. Everything from very detailed input prices entered into a computer or tablet to ballpark figures on the back of a napkin are used to estimate the cost of inputs for the growing season.

Before one can figure the cost of production and analyze expense trends, the grower should be aware of what kinds of costs they will have. One cost is variable cash costs which involve actual cash transactions. Fuel, seed, fertilizer and herbicide purchases are cash costs that vary with the number of acres farmed. Non-cash variable costs include expense items such as depreciation, which are not associated with an actual cash transaction. Variable costs increase (or decrease) as use increases (or decreases). Crop budgets are relatively simple for individual farmers to develop. They consist of listing various field activities and the inputs associated with them, along with prices, to arrive at an estimate of the cost of production.

Other types of cost are Fixed cash costs which remain constant as use increases. Property tax, insurance, and self-employed labor are examples of fixed cash costs. Fixed non-cash costs would be some tractor depreciation, implement depreciation, interest, and land charge to owned property. Property tax is a cash cost that is fixed because it is incurred whether or not the land is farmed.

Because tillage equipment depreciation and interest are functions of age rather than use, they are fixed, non-cash costs. Equipment depreciation occurs whether or not the implement is used. Tractor depreciation is a partially fixed and partially variable non-cash cost. Fixed depreciation occurs on tractors as they age, regardless of use. Variable depreciation occurs on tractors as they are used more intensively.

Land charge is a non-cash cost of land ownership. Principal and interest payments are cash expenditures associated with land ownership. Land charge or interest, when used to estimate the cost of production, is the value of the land farmed times the rate of return that could be gained if the land were sold and the money invested elsewhere. Land charge is a fixed cost incurred whether or not a lien exists on the land and whether the land is farmed or left idle.

Budgets on a **per acre cost** basis are a powerful tool for assisting farm management. A listing of inputs and prices helps estimate how much operating capital is needed for production. An estimate of the **per bushel cost** of production is useful in making effective marketing decisions. Crop share and leases can be evaluated using the contributions attributed to both landowner and tenant in a crop budget. The economics of different systems, such as conservation tillage and no-tillage production, can be compared with a more detailed budget.

Several resources are available to help with cost of production estimates. UW-Extension’s Farm Team has a website <http://www.uwex.edu/ces/farmteam/budgets/fieldcrop.cfm> full of crop production enterprise budgets to help calculate cost of production.