NC STATE UNIVERSITY

North Carolina Irrigation Budgets: Print Version

These budgets provide estimates of investment and annual operating costs for selected irrigation systems in North Carolina. They are based on but a few of many possible irrigation systems. The most common systems and water sources were used as the basis for the costs shown in the budgets. Specific farm conditions will vary considerably, which affects both the total investment and annual costs. These budgets are only intended to be used a guide to developing irrigation costs estimates for a specific farm specific situation. Individual farmers are encouraged to develop their own cost estimates using information that is specific to their farm situation. Spreadsheet versions of these budgets are available and can be used for this purpose.

Each individual budget includes estimates of the total investment in the irrigation system, the annual ownership or fixed costs for that particular system, and the annual operating or variable costs.

Investment costs include all the items needed to construct the irrigation system. It was assumed that a well would be needed and this accounts for a substantial portion of the investment costs. The well cost will depend on successfully finding adequate water, the depth of that water and the well capacity. Surface water, if available, would reduce the investment cost of the total system.

The annual ownership or fixed costs represent the annual costs or charges associated with the initial investment, and include both equipment and the well. These ownership costs are depreciation, interest on investment, property taxes, and insurance.

Operating or variable costs are those costs which change based on the amount of use. For example, fuel cost is based on the hours of use. These costs include fuel or electricity, equipment repairs and maintenance, and the cost or charge for the time spent operating and monitoring the equipment. The type of power available affects the operating cost of the irrigation system. At current prices, three phase electrical power is less expensive than diesel fuel. The budgets assume that five acre inches of water will be applied annually, on average. However, the amount applied in any particular year will depend on the amount of rainfall.

These spreadsheet budgets estimate the costs of irrigation. The returns to irrigation will depend on the specific crops to be grown, including rotations, expected yield increases and projected crop prices.