

APPLICATION EVALUATION AND RANKING TOOL COST INSTRUCTIONS

Ranking tools provide NRCS and its customers a process which will determine which conservation practices are the most effective meeting the desired economic, environmental, and social goals.

Costs are an important conservation planning and implementation consideration. The Ranking tool provides NRCS, partners, and decision makers an estimate of the conservation benefits per dollar of public and private investment.

The CTA Typical Practice Average Annual Cost table in Section I of the FOTG is used as the basis for selecting practice average annual cost for the ranking process. This Typical cost list may include multiple entries for a practice. The rationale for multiple entries could include differences in size, location, contribution toward addressing resource concerns, topography, and design differences are some of the factors. The typical practice average cost is not the total cost of a practice but does represent a substantial portion of the investment necessary to install the practice. The use of the average cost allows for consideration of both private and public cost and benefits.

Three economic concepts are included in the cost ranking process.

1. The first concept is that of opportunity cost. Opportunity cost is the "economic rent" of the investment in the conservation practices. Whether the money is taken out of savings or borrowed there should be a charge for renting the money. The interest rate selected for the ranking tool is the rate used to evaluate federal water resource projects. This rate is available on the economics website at <http://www.economics.nrcs.usda.gov/cost/discountrates.html> . The WRDC discount rate is in the far right column. The current rate is 5.375 %
2. It would be simpler to use the Average Cost rather than taking the simple steps and converting the cost to an average annual cost basis. However, the second concept adds value to the process. If one practice will last for three years and costs \$5 and another practice will last 10 years and cost \$9 which is the better investment? Converting to average annual allows for direct comparisons. The official Life Spans for each practice are available in Smart Tech. The EQIP Ranking Tool average annual cost calculator provides an "unofficial" list of these Life Spans. States may adjust the Life Spans as necessary to better represent local conditions.
3. The next concept is the inclusion of operation and maintenance (O & M). A percentage of installation is being used to represent the annual cost of O & M. A good example of how including O &M adds value to the process is to consider sprinkler irrigation systems. If we compare the investment cost of a hand line system to a center pivot system, the per acre cost of the hand line system is usually lower. However, the hand line system is much more labor intensive than the center pivot system. When the cost of the labor and other O & M cost are included the center pivot may provide more value. Operation and maintenance

is essential in order to meet our conservation objectives. Operation and Maintenance factors are included in the EQIP Ranking Tool Average Annual Cost Calculator. States may also modify these factors.

The Ranking Tool Average Annual Cost Calculator is available at:

ftp://ftp-fc.sc.egov.usda.gov/Economics/Costs/EQIP_RANKING_COST_CALCULATOR

- To use the tool first adjust the practice list. Most states do not use all of the conservation practices. Unnecessary practices should be deleted or updated to match the current active practices in your state to correspond with the state list in the Conservation Practice Standard (CPS) Application.
- For the appropriate practices states may adjust the life spans and Operation and Maintenance Factors to more appropriately represent local conditions, again in correspondence to data in CPS.
- Next, enter the average cost from the cost list. The calculator will compute the average annual cost.
- Presently, the Ranking Average Cost Calculator is not linked to the ranking tool and the average annual cost must be transferred to the ranking tool.
- In the future the Operation and Maintenance factors may be considered for addition to the SmarTech Data Base. There are also considerations to include a cost estimator in ProTracts with the application evaluation and ranking.