

Development of an Economic Assessment Tool for Southern Organic Apple Production

H. German Rodriguez, Ph.D., Jennie Popp, Ph.D., Curt Rom, Ph.D.,
Heather Friedrich, and Jason McAfee
University of Arkansas

Corresponding Author: Jennie Popp, 217 Agriculture Building, University of Arkansas,
Fayetteville, AR 72701, 479-575-2279, jhpopp@uark.edu

Organic fruit production has increased significantly in the last decade (USDA-ERS, 2005). Organic apple orchards in the Pacific Northwest have been proven to be both economic and sustainable (Reganold et al., 2001), however, there is limited experience and published research on organic orchard production in the southern region. Surveys of southern stake-holders indicated that great opportunities exist for markets of both fresh and processed fruits (Rom et al., 2005), but also indicated there are significant challenges. These challenges include assessments of lack of information available on the economic impacts of different organic production practices and the potential returns available from organic production.

In this poster, we describe the development of an interactive organic apple production economic assessment tool. Sample costs for labor, materials, equipment and custom services are based on current figures gathered at the University of Arkansas Agricultural Research and Extension Center, Fayetteville, AR. The practices described are based on production procedures considered typical for northwest Arkansas. Information is placed into an Excel spreadsheet to make the budget interactive. The tool is both easy to use and highly customizable. It can be used for two economic purposes. First, producers can use the tool to estimate enterprise organic apple production budgets. The producer can choose to: 1) use default cost values built into the tool, 2) enter costs from his/her farm, or 3) combine both. Anytime producers modify an activity, the budget automatically calculate total cost per year, a breakeven analysis for yield and price and a sensitivity analysis for total cost. Second, producers can use it to evaluate cost, returns and breakeven points for 12 different production management systems (four ground covers, three fertilization treatments). With a click of a button producers are given tabular and graphical information that highlights estimated costs, returns and breakeven values for these many options.

This tool is useful because it allows producers to estimate operating costs, fixed costs, total costs and expected total returns by modifying an important production practice, cost or return value. Allowing comparisons among different practices would assist organic apple producers to make better planning and investment decisions.