Comparison of Two Organic Blackberry Production Systems under Production and Market Risks

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Although the demand for blackberries is increasing in Arkansas, the cost of producing berries has also increased. The initial establishment cost will depend on the production system chosen; field or high tunnel production. Producers need to be aware not only of their expected costs but also of the production and market risks they face before making a financial investment.

A risk analysis helps to estimate distributions of economic returns for alternative blackberry cultivars or production systems so the producer can make better management decisions. To measure the deficit or excess of cash flows throughout the life of the orchard, the net present value (NPV) was estimated for six blackberry cultivars. The NPV represents the present value of a series of future net cash flows that will result from investing in berry production.

Simulation techniques were used to generate distributions of NPV for each cultivar by creating two random variables: yield and price. Results show that field production is preferred than high tunnel production for four cultivars. In fact these cultivars offered minimal risk since they have a zero probability of generating negative NPVs.

This methodology helps producers to compare the economics of different production systems and cultivars. Especially, focus was given to the probabilities of obtaining negative NPVs. Producers could use this information to make better investment decisions.