

Cost Estimation of Establishing a Cider Apple Orchard in Western Washington[©]

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Cider apple production is increasing in Washington State where an estimated 204 acres were produced in 2010 and 256 acres in 2011. Growers are seeking trees to establish new orchards and need information to help determine potential cider orchard profitability and scale of production. Common cider apple cultivars grown include ‘Kingston Black’, ‘Yarlington Mill’, ‘Brown Snout’, ‘Dabinett’, ‘Porter’s Perfection’, among others. Fewer pesticide inputs are used for cider apples than for dessert apples, as minor surface blemishes are tolerated if yield and internal fruit quality are not affected. In western Washington, cider apple production is not limited by environmentally induced diseases (e.g., scab) which otherwise limit apple production and yields. The objective of this study was to provide information on: 1) The costs of equipment, materials, supplies, and labor required to establish and produce a cider apple orchard in western Washington; and 2) The ranges of price and yield levels at which cider apple production would be a profitable enterprise. The study outlined baseline production assumptions for a 10-acre cider apple orchard based on input from producers, including a productive orchard life of 25 year, with 4 years of establishment and 21 year of full production and crop yield of 5 bins/acre, 12 bins/acre, and 46 bins/acre during Years 3, 4, and thereafter, respectively. Furthermore, the baseline price received for a 900-lb bin of cider apples was \$315 (\$0.35/lb). Study findings indicated that a producer will start to receive positive net returns after 4 years. For a fully established cider apple orchard, a producer would expect about \$1570/acre of net returns based on a yield of 46 bins/acre at \$315/bin and the total cost break-even return was estimated at \$281/bin (\$0.31/lb). The investment in the orchard was estimated to be recovered in about 6.40 years. When changing the price of cider apples while holding all other variables constant, the investment would not be recovered within the productive life of the orchard if the price received for cider apples was \$242/bin (\$0.27/lb). At higher prices of \$270/bin (\$0.30/lb), \$360/bin (\$0.40/lb), and \$405/bin (\$0.45/lb), the estimated payback periods were 17.83 years, 10.51 years, and 9.1 years, respectively. On the other hand, if crop yields were 10% lower than the base, holding all other variables constant, the cash cost investment would be recovered at 15.88 years. If crop yields were 10% higher than the base, the estimated payback period was 11.09 years. Given the baseline yield, price and production costs, study results showed that it would be economically feasible to produce cider apples in western Washington.

