

Estimation of Pecan Tree Value

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Pecan trees are valuable for shade, landscape aesthetics, and nut production. Loss of pecan trees from storms, equipment damage, road intrusion, etc. often necessitates that replacement values be calculated. To assess the replacement value of one or more pecan trees fairly, the following factors must be considered:

Tree Age

Pecan trees require from 5-10 years on average to begin bearing nuts on a commercial scale. Generally as a tree ages, its productive potential increases. Therefore, the economic loss of a 3 year old tree will be less than that of a 30 year old tree.

Cultivar

Is the tree an improved variety or seedling? Good improved varieties such as those discussed elsewhere in this book are usually sold for good wholesale/retail prices. The value of seedling trees may be more difficult to estimate due to the high variability between seedlings. Nuts from seedling trees are usually sold at lower prices.

Tree Vigor and Maintenance

Pecan trees must be fertilized annually and sprayed regularly for insect and disease control to be considered vigorous and productive. Weeds should be controlled at some level, especially during the first 6 to 7 years of establishment.

Purchase Price of New Trees

Seedling trees can be purchased for as little as \$8-\$10, depending on size and quantity. Improved varieties (budded trees) range in price from \$10-\$25, depending on size and quantity. Purchase price of new trees is included in establishment cost of year 1 in Table 1.

Cost of Culture

Annual production costs are given in Table 1. Costs are presented on a per acre basis. Individual tree production costs must be estimated based on the tree spacing in the orchard. Number of trees per acre at various tree spacings can be found in the chapter of this book covering orchard establishment.

Value of Lost Nut Production

The owner of the lost trees has lost potential net income for each year that new trees are being re-established to bearing age. Table 2 provides yield projections for an orchard of improved varieties under optimal growing conditions. After year 20, pecan yields may begin to level off. Market values for in-shell pecans may be highly variable from one year to the next, depending on national supply and demand. Retail prices are

generally more stable than wholesale market values. Table 2 provides generalized market values for wholesale and retail pecans.

Table 1. Annual establishment/production costs for typical southeastern orchard following recommended cultural practices. Values may vary from year to year based on the cost of variable inputs. Costs do not reflect fixed costs (land, equipment, overhead, etc.)

Year	Annual Cost per acre (at 27 trees/acre)
1 ^a	\$842.19 (Installation of Drip Irrigation:\$400/A)
2-4	\$227.36
5-7	\$379.10
8+	\$470.00

^aYear 1 establishment cost includes all variable costs + drip irrigation installation (\$400/A) and tree cost (\$364.50)

Table 2. Generalized in-shell yields for a southeastern pecan orchard (40 X 40 spacing; 27 trees per acre). These values assume good cultural practices and optimal climatic conditions. Yield may vary from one cultivar to another, and some cultivars begin bearing nuts before the 8th year; however, 8 years is often required to bring a new tree into a yield range approaching full production.

Year	Estimated Annual Production (lbs/acre)
1-3	0
4-5	0
6-7	0
8	600
9	750
10	775
11	1000
12	1000
13	1000
14	1000
15	1000
16	1100
17	1100
18	1200
19	1200
20+	1500

SAMPLE PECAN TREE LOSS EVALUATION

Tree Age: 15 years

Variety: Desirable

Vigor/Maintenance: Trees are vigorous and under good culture

*Orchard Size :*40 acres

Tree Spacing: 40 X 40 (27 trees per acre)

Number of trees lost: 10

	Cost/tree	Cost for 10 trees
<i>Purchase Price of New Trees</i>	\$13.50	\$135.00
<i>Establishment & annual production cost (Yrs 1-7) with no nut production (minus cost of new trees)^a</i>	\$90.69	\$906.90
<i>Net income lost from 15 year Old trees for 7 years (time needed to bring new trees into production). Assumption: wholesale value of \$1.60/lb^b</i>	\$417.41	\$4174.10
Total	\$521.60	\$5216.00

^a\$842.19 per acre -213.00 (cost of trees) =629.19 + 227.36+227.36 +227.36+379.10+379.10+379.10= 2448.57/27 trees per acre = \$90.69/tree

^blost production years 16-22 = 9100 lbs/A X \$1.60/lb = \$14,560 per acre/27 trees = \$539.26 per tree gross income ; Production cost year 16-22 =\$470 per acre X 3 years = \$3290.00 per acre/27 = \$121.85 per tree production cost. Therefore, net income lost for 7 years = \$539.26-\$121.85 = \$417.41/tree