

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:

- Age of tree(s)
- Variety
 - Is the tree an improved variety or seedling? Good improved varieties for South Alabama include: Stuart, Schey, Success, Cape Fear, Desirable, Elliott, Forkert, Kiowa, Jackson, Jubilee, Surprise, Sumner, Moreland, and others. Nuts from these varieties are usually sold for good wholesale/retail prices. Nuts from seedling trees are usually sold at lower prices.
- Tree vigor and maintenance
 - Pecan trees in South Alabama 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 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.
- Cost to culture trees for each year of reestablishment.
 - Annual production costs are given in Table 1. Costs are presented on a per acre basis. Individual tree production costs must be estimated using the tree to tree spacing as an indicator of number of trees per acre (Table 2).
- Value of lost nut production
 - The owner of the lost trees has lost potential net income for each year that new trees are being reestablished to bearing age. Table 3 provides yield projections for an orchard of improved varieties. After year 20, pecan yields in Alabama orchards generally level off.

Table 1. Annual establishment/production costs for typical orchard in Alabama following recommended cultural practices. These values were taken from *Pecan Production in the Southeast - A guide for growers*, (Circular ANR-459, Alabama Cooperative Extension System, Auburn University). **Costs do not reflect fixed costs (equipment, land, general overhead, etc.).**

Year(s)	Cost per Acre, Based on 40 Acre orchards w/27 trees per acre	Cost per Acre, based on 100 Acre orchard w/27 trees per acre
1	\$494.30	\$488.30
2-4	\$160.91	\$154.91
5-7	\$238.21	\$232.21
8+	\$548.50	\$575.98
Total years 1-7	1691.66/Acre	1649.66/Acre
Total Years 8-15	4676.00/Acre	4607.84/Acre

Table 2. Number of trees per acre for various common planting spacings

35 ft x 35 ft	35 trees per acre
40 ft x 40 ft	27 trees per acre
50 ft x 50 ft	17 trees per acre
50 ft x 70 ft	12 trees per acre
70 ft x 70 ft	9 trees per acre
100 ft x 100 ft	4 trees per acre

Table 3. Generalized inshell yield values for southeastern pecan orchard. These values assume good cultural practices and optimal climatic conditions.

Year of tree age	Estimated inshell nut production (lbs/Acre)
1-7	0
8	75
9	125
10	250
11	400
12	550
13	700
14	850
15	950
16	1000
17	1000
18	1100
19	1100
20+	1250

Table 4. Generalized current market values for inshell pecans. Prices fluctuate greatly each year depending on national supply and demand. Retail market prices are currently more stable than wholesale market values.

Inshell Pecans	Wholesale market	Retail Market
Low Price	\$0.50-0.80/lb	\$1.00-1.55/lb
Good Price	\$0.80-1.10/lb	\$1.50-2.00/lb
Premium Price	\$1.10-1.40/lb	More than \$2.00/lb

SAMPLE PECAN TREE LOSS EVALUATION

Orchard Location: Baldwin County

Age of Trees: 15 years

Variety: Desirable (Note: Desirable is a good improved pecan variety, which brings premium prices)

Vigor/Tree Maintenance: Trees in the orchard are under good culture and are vigorous.

Orchard Size: 40 Acres

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

Number of Trees Lost: 10

	Cost for One Tree	Cost for Ten Trees
Purchase Price of New trees	\$20.00	\$200.00
Establishment & annual production costs per tree (Years 1- 7) with no nut production	\$62.65/tree (calculated from Table 1)	\$626.50
Net Income lost from 15 year-old trees for 7 years (time needed to bring new trees into production). Assumption- wholesale value of \$1.25/lb (Calculated from tables 1, 3 & 4, where yields were summed for years 16-22, and annual production costs were subtracted.)	\$216.52	\$2,165.20
Totals	\$299.17/tree	\$2,991.70