

L-1034

# PROFITS FROM PINE TIMBER PRODUCTION

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How much money can one expect from growing pine timber? This question is asked often and an uncomplicated answer is expected. Such an answer is hard to give because of growing site, species planted, weather conditions, management level and prices paid for products. However, a study was made of pine plantations on the Davy Crockett National Forest near Ratcliff, beginning in 1936, which gives the landowner a good idea of past

income from a pine plantation<sup>1</sup> under varying conditions. Future income from timber growing, based on different stumpage or standing timber values is likely to be somewhat higher.

The timber producer will go into the business by either obtaining income from a pine plantation<sup>2</sup> or by managing an existing stand. Income from both types is discussed, starting with plantations.



A well managed stand of timber is a stand where the better trees have plenty of room to grow. Here, maximum income per acre is returned to the landowner.

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# Ratcliff Lake Slash Pine Plantation - Planted 1936

Above-average site under good forest management

# Average income per acre per year - \$26.49

Per acre 1948		Per acre	1955
Total 30 cords <sup>3</sup> \$120		Total	35 cords \$140
Cut 15 cords 60		Cut	10 cords 40
Leave 15 cords 60		Leave	25 cords 100
Per acre 1960			
Total 8.01 cords plus 12.40 MBF <sup>4</sup>	\$404.04		
Cut 5.24 cords plus 5.48 MBF	185.36		
Leave 2.77 cords plus 6.92 MBF	218.68		
Per acre 1969			
Total 0 cords plus 17.06 MBF	\$597.10		
Cut 0 cords plus 1.26 MBF	44.10		
Leave 0 cords plus 15.90 MBF	553.00		
Value of stand 1970	\$571.20 per acre	16.32 MBF	
Returns 1969	44.10 per acre	1.26 MBF	
Returns 1960	185.30 per acre		plus 5.24 cords
Returns 1955	40.00 per acre		1
Returns 1948	60.00 per acre		
Total value	\$900.66 per acre	23.06 MBF	plus 30.24 cords
Average per year	26.49 per acre	.678 MBF	plus 0.89 cords
Rates used-1948, 1955 and 1960	Rates used-1969		
\$30 per MBF	\$35.00 per MBF		
\$ 4 per cord	\$ 3.25 per cord		

In 1971, stumpage values for average grade pine are approximately \$40 to \$45 per thousand board feet and around \$4 per cord for pulpwood.

In the process of marketing timber, trees should be marked selectively for removal of undesirable trees.

In this stand, the trees are growing too close together. Certain trees are marked for removal.





# Ratcliff Lake Loblolly Pine Plantation - Planted 1936

Average site under good forest management Average income per acre per year — \$16.03

Per acre 1948	Per acre 1955
Total         18 cords         \$72           Cut         9 cords         36           Leave         9 cords         36	Total         15 cords         \$60           Cut         6 cords         24           Leave         9 cords         36
Per acre 1960	
Total 9.43 MBF plus 7.72 cords Cut 3.10 MBF plus 5.19 cords Leave 6.33 MBF plus 2.53 cords	\$313.78 113.76 200.02
Per acre 1969	
Total         10.03 MBF plus 1.95 cords           Cut         1.85 MBF plus 1.50 cords           Leave         8.18 MBF plus .45 cords           Value of stand         1970           Returns         1969           Returns         1955           Returns         1948           Total value         Average per year	\$357.40 69.63 287.76 \$301.76 8.58 MBF plus .45 cords 69.63 113.76 3.10 MBF plus 1.50 cords 24.00 6.00 cords 36.00  \$545.15 \$16.03  \$400 MBF plus 22.14 cords 400 MBF plus .67 cords
Rates used—1960	Rates used—1969
\$30 MBF \$ 4 per cord	\$35.00 per MBF \$ 3.25 per cord



This tree is approximately 25 years old. It has had plenty of room to grow and consequently has made good returns to the landowner. Note the size of the log as indicated by the pair of glasses.

More than likely, the forest landowner has a variety of stand conditions. For example, the average forest landowner will own mixed pine-hardwood stands of varying age classes as well as some open land needing planting. Following is an actual example on average site with projections to 1977.

Purchase 197065	acres	
Young stands (not ready for 197	1 cut) 5	acres
Open area (needing planting)	15	acres
1971 cutting area	45	acres
	TOTAL 65	acres

#### 1971 INCOME AND VALUES

Low quality overstory selectively harvested on 45 acres.

- (a) 1,000 board feet (Doyle scale) cut per acre

  @ \$33.33 per MBF......\$1,500 income
- (b) Remaining on the 45 acres is 2,200 board feet per acre @ \$35 per thousand board feet.......\$3,465 value
- (c) Also, on the 45 acres is 8 cords per acre
  pulpwood @ \$3 per cord......\$1,080 value

## Ratcliff Shortleaf Pine Plantation - Planted 1936

Below-average site under good forest management

## Average income per acre per year - \$5.29

Per acre 1955						erre l				
Total 9.60 cords Cut 4.80 cords Leave 4.80 cords	\$30.40 19.20 19.20									
Per acre 1960										
Total 17.70 cords plu Cut 5.52 cords Leave 12.18 cords plu		\$100.50 22.08 78.42								
Value of stand Returns	1960 1955			acre acre					MBF	
Total value Average per year		4.99	per	acre	.94	cords	plus			
Per acre 1969										
Total 14.86 cords plus Cut 1.20 cords Leave 13.66 cords plus		\$132.65								
Value of stand Returns Returns Returns	1970 1969 1960 1955	\$134.64 3.90 22.08	per per	acre acre acre	1.20 5.52	cords	olus I	2.57	MBI	etun. Gtal, verst
Total value Average per year		\$179.82 5.29		acre acre		cords				
Rates used for 1955		Rates u	ised	for 1969						
\$30 per MBF \$ 4 per cord		\$35.00 \$ 3.25			80 SH					

## 1977 PROJECTED INCOME AND VALUES

Pines on 50 acres selectively thinned, growth computed at 300 board feet per acre annually.

- (a) 900 board feet (Doyle scale) cut per acre at \$40 per MBF......\$1,800 income
- (b) Remaining on the 50 acres is 3,100 board feet per acre @ \$40 per thousand board feet.......\$6,200 value
- (c) Also, on the 50 acres is 5 cords per acre pulpwood @ \$4 per cord......\$1,000 value

Value of cut and standing timber.....\$9,000

This landowner received a value of \$1,500 for the first cut and has made \$14.25 per acre yearly since then.

However, this isn't the complete story. Forest management makes an ideal land use for the small to medium-sized owner because he has such a small initial investment to get his land into production and an even smaller investment to keep it producing. Consulting foresters can be hired to manage the land, and the owner need not even see his forest to realize a good income from it.

Hence, forestry is an ideal investment for anyone, particularly persons who have other jobs or are absentee owners.

# **FOOTNOTES**

<sup>1</sup>Information presented by District Ranger Hubert Steidle, Netches Ranger District, U. S. Forest Service, Crockett. This information was gathered by present and past U. S. Forest Service personnel from 1948-1969.

<sup>2</sup>A pine plantation is established by planting pine seedlings.

 $^{3}$ A cord is a stack of wood 4 x 4 x 8 feet.

 $^4$ Thousand board feet. One board foot is a piece of wood 1 foot square and 1 inch thick.

Cooperative Extension Work in Agriculture and Home Economics, Texas A&M University and the United States Department of Agriculture cooperating. Distributed in furtherance of the Acts of Congress of May 8, 1914, as amended, and June 30, 1914. 5M-2-72

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