# SMALL SAWMILL IMPROVEMENE PRACTICAL POINTERS TO FIELD AGENCIE 

SLAALL SAWAILL ACCOUNPING evitable expenditures for depreciation, maintenance, and repair of equipment, taxes, and interest on capital tied up in their business. These costs run from 9 to 22 percent of the total cost in five different types of small mill operations studied by the Forest products Laboratory. Failure to take these costs into consideration is one of the serious contributing factors to the high business mortality among operators of small mills.

The following accounting system in which the foregoing costs are given proper consideration is suggested as a pattern to meet the requirements of small sawmills. The records called for under this system show the essential details of expenditures, receipts, and inventories, reflect the status of individual accounts, furnish facts for use in connection with the Fair Labor Standards Act of 1938, and permit segregations of costs and returns for income tax purposes.

The pattern suggested is reduced to the simplest form necessary, and requires but a single listing of all expenditures and receipts. In the forms presented, the labor account is segregated from other expenditures in order to have this information available to meet the Federal wage hour requirements. Individual operations may benefit from further separating special classes of items in the purchases ledger, carrying as separate accounts such items as timber and its products, interest, taxes, insurance, and rent.

Records of purchases and expenditures and of sales and receipts are entered currently and balanced monthly. A year-end balance is made between assets and liabilities, and the net profit or loss from the current year's operation computed.

A balance sheet is ordinarily made yearly in small enterprises. The procedure is to balance assets (cash, accounts receivable, timber, logs, Iumber, plant, and supplies) against liabilities (debts owned by the business).

1. Cash.--All cash, checks, and negotiable notes on hand at the end of the year.
2. Accounts receivable, --All collectable unpaid balances owed by customers as shown on the December 31 record of sales, receipts, and accounts receivable. Uncollectable accounts are written off and listed as bad debts for income tax purposes.
3. Timber, logs, lumber in stock. --A year-end inventory is made of these and a value allotted them. This value should be either the cost or the market value.

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$\dagger$ Maintained at Madison, Wisconsin in cooperation with the University of Wisconsin.
*See outline in Small Sawmill Improvement Working Plan, March 1930, for explanation of indexing system proposed.
whichever is lower. Yard inventories are simplified if the date, item, footage, and species are marked on the pile when it is completed, for axample, 1/12/40-4/4 No. 1 - 3650, - Ash. Logs are inventoried by checking the footage and converting to cost or value after discounting expected transportation costs for logs in the woods or in transit. Timber is inventoried by estimating the footage and converting to cost or value.
4. Plant and supplies.--The plant consists of buildings and equipment required for the operation. Its value should be based on material purchase price plus installation cost apportioned over the remaining useful life to the operation. Builings in permanent operations are commonly discounted at the rate of 5 percent yearly (original cost divided by 20); for temporary operations discount yearly the original cost divided by expected life of operation at that site. Other equipment is discounted yearly, a sum equal to the purchase cost divided by the expected life as shown on page 8. If the item outlasts the estimated life no value is given; if the useful life falls short of the estimated life, the undiscounted balance is subtracted from the value of all equipment. The total sum of these yearly discounts on equipment and plant is the depreciation account required for income tax purposes.

Supplies as distinguished from equipment are short life items (less than a year), such as stock feed, gas, oil, small tools, etc. For the balance sheet account those carried into the nem year are given a value as of December 31.
5. Liabilities.--All unpaid bills as of December 31 as shown in the Decomber record of purchases and payments.

The accounts carried to this point serve as records of individual "transactions between the business, its creditors, and debtors, and provide in the balance sheet a yearly statement contrasting assets with liabilities. A further analysis is necessary to determine the net profit or loss over the year. The items and method of computing for Federal income tax purposes consist of the following:

1. Total receipts (accounts paid and recéivable) 10. Salaries
2. Labor
3. Materials and supplies
4. Merchandise bought for sale
5. Other costs
6. Plus inventory at beginning of year
7. Total 2 to 6
8. Less inventory at end of year (cost or market)
9. Net cost
10. Interest on búsiness indebtedness.
11. Taxes and insurance
12. Losses
13. Bad debts
14. Depreciation.
15. Rent, repairs, etc.
16. Total (lines 10 to 16)
17. Total deduction
(line 9 plus line 17)
18. Net profit (or loss)
(line 1 minus line 18)
19. Total receipts.-Accounts paid and payable for sales of current year as shown in the total value of all sales over the year taken from month ly totals after deducting total claims and discounts. Accounts payable carried from the previous year (shown on the January record of sales-receiptsaccounts receivable for current year) are not included. Accounts payable at end of current year for items sold within the year are included.
20. Labor,--All wages paid and payable for work performed within the current year taken from the payroll form as total earnings summation. Unpaid wages carried from the previous year are excluded. Unpaid wages at the end of the current year are included.
21. Materials and supplies.--purchases normally used up in a year or less. Equipiient normally used for more than a year is excluded and accounted. for under item 15 (depreciation). Purchases of timber, logs, and lumber are accounted for under item 4 (merchandise bought for sale). Materials and supplies thus include feed, veterinary service, shoeing of animals, oil, gas, files, bits for saws, belt lacings, etc. The total cost is taken from the record of purchases and payments.
22. Merchandise bought for sale,-All purchases of timber, logs, and timber, products made during the year and shown in the record of purchases and payments.
23. Other costs.--Exchange charges on checks, abstract and attorney fees, surveying expenses, etc.
24. Salaries.--All wage payments for regular employees not recorded in the labor account as shown in the record of purchases and supplies.
25. Interest on business indebtedness.--Interest payments made during the current year on money borrowed for conducting the business. Taken from records of purchases and payments.
26. Taxes and insurance.--Federal, State, and local taxes, social benefit assessments, and insurance payments assessed the business during the current year as shown on the Record of Purchases and Payments. Any assessments included in the payroll form are not repeated here.
27. Losses.--Losses within the current year not reimbursed by insurance to the property or stock from fire, flood, theft, etc. These losses are given a value in line with book values carried in the balance sheet inventory of assets.
28. Bad debts.--Credits which are uncollectable and eliminated from the assets in the balance sheet inventory of assets.
29. Depreciation.--The total sum of the yearly discounts on equipment and plant as determined in subdivision 4 of the balance sheet, page 2.
30. Rent, repairs, etc.--Rents, payments for options, leases, etc., repairs on equipment not recorded under item 3 (materials and supplies), and shown in the Record of Purchases and Payments.

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The method used on income tax statements to determine the net profit or loss is as follows: To the sum of the costs of items 2, 3, 4, 5, 10, 11, $12,13,14,15$, and 16 add the value of the inventory taken at the beginning of the year and then subtract the value of the inventory taken at the end of the year. This represents the total costs of doing business for the year. Subtract from the total receipts (1) in order to determine the total net profit or loss for the year.

Total net profit or loss per $M$ board feet is found by dividing this net profit or loss by the number of thousand board feet sold during the year as given in the totals on the record of sales-receipts-accounts receivable.

To start this accounting make a balance sheet of the business. The assets consist of (1) cash, checks, negotiable paper on hand, (2) accounts receivable, (3) the value of timber, logs, and lumber in stock, (4) the value of plant and supplies. The liabilities are all unpaid bills and obligations (see instructions on making a balance sheet, page 1).

Allow enough space in the purchases-payment and in the sales-receipts ledgers for entering under an individual account all probable purchases dur-. ing the month. At the end of the month balance each individual account on both ledgers, and enter unpaid balances as first item of these accounts for the succeeding month. Reserve a sheet for monthly summaries going to make up year end balance sheet and profit or loss statement, and fill in the totals for the month for the headings suggested on the lower part of the record of purchases and payments form and on the record of sales-receipts-accountsreceivable form.


Note.--Allow enough space under each individual account for all probable sales during the month. At the end of the month, balance each account and enter unpaid balance as the first item for the succeeding month. At the end of the month also make a monthly summary of the total quantity sold, total value, amount paid, unpaid balance, claims and discounts. The total value of all sales after deducting for claims and discounts is item 1, page 3, and is used in the yearly profit or loss analysis. addisnṭd roqer jo quemqueded tions is suggested for the labor ledger. See "Employers' Digest of the Fair Labor Standards Act of 1938 " for $\dot{\omega}$ the The sample pay-roll form of the Wage and Four Division of the interpretation of provisions denoted by the letters in parentheses:-
Sample Par-Roll Form (No particular form is required)
Date of payment (f)

Workweek ending




Note,-Carry a separate record for each account, balance at the end of the month, and bring forward the unpaid balance as the first entry for the ensuing month. Year-end balance and profit and loss statements will be simplified if a different colored ink or symbol is used for equipment subject to depreciation accounting and for purchases of timber, logs, and lumber.

From above records make monthly summaries as follows:

1. See footnote to Record of Sales, etc.
2. See footnote to Sample Payroll Form
3. Materials and supplies. (See page 3 for items included.)
4. Merchandize bought for sale. (See page 3 for items included.)
5. Other costs (See page 3 for items included.)
6. Salaries " " " " " "
7. Interest on bonded indebtedness.
8. Taxes
9. Rent, repairs, etc.
Item $\frac{\text { Expected life }}{\text { Years }}$
$\frac{\text { Yearly depreciation }}{\text { Percent }}$
Horses ..... 5 ..... 20
Mules. ..... 5 ..... 20
Sleds. ..... 5 ..... 20
Log wagons ..... 5 ..... 20
Felling tools ..... 100
Truck (logging) ..... 25
Cats. 4 ..... 25
Tractors ..... 4 ..... 25
Shacks and buildings Life of operation
Jammers. ..... 3
33-1/3
Kill building Life of operation or 5 percent
Steam engines. ..... 205
Gas units ..... 10 ..... 10
Diesels ..... 15 ..... 7
Edgers. 10-12 ..... 10
Mill machinery ..... 10-12 ..... 10
Trim saws. 10-12 ..... 10
Rolls. 10-12 ..... 10
Saws ..... 25
Lumber trucks ..... 20
Lumber wagons ..... 5 ..... 20Contributed by C. J. Telford,Forest Products Laboratory,October 1940.
