



Prepared by:

R. D. Foote

County Director of  
Agricultural Extension

Arthur Shultis

Extension Economist,  
Farm Management

Agricultural Extension Service  
University of California  
UC COOPERATIVE EXTENSION

Bartlett pears are the leading fruit crop in Mendocino County in value of product, although exceeded in acreage by wine grapes. They are well adapted to the deep, friable, alluvial soils of the bottom lands along the Russian River from Potter and Redwood Valleys in the north, through Ukiah and Sanel (Hopland) valleys to the south. The climate here favors the production of high-quality shipping and canning pears. Spring frosts occasionally damage and reduce the crop and humid weather in the spring makes necessary the control of scab and blight. The bench lands around the valley can produce only lower yields at higher costs and many orchards on such soil were found unprofitable and have been removed. Bearing acreage of Bartletts was around 3,500 acres in the 1930's but has since declined to a little over 2,000 acres. Most of the better orchards remain, so there has been little decline in total production. In 1949 total production was 19,000 tons, about 9.5 tons per acre, worth about \$32.00 a ton. In 1950 total production, with some frost loss, was 17,000 tons, or 8.5 tons per acre, worth about \$80.00 a ton. This is about 6% of the total Bartlett acreage and production for the state.

OUTLOOK - Pear prices have been good in recent years except in 1949 when a very large crop resulted in low prices. Total acreage of Bartlett pears in the west is considered adequate to produce a supply that will bring a fairly profitable price in years of average production and normal purchasing power. Good, well-managed, high-yielding orchards should be profitable for several years to come and most of the remaining orchards are of this type. On the other hand, it takes a long time and a large capital outlay to bring a new orchard into bearing and additional plantings are not warranted. Any decline in consumer purchasing power will result in a greater decline in grower prices and profits with continuing high costs of transportation, processing and marketing. High production per acre at low costs and financial reserves are essential to security.

COSTS - Production costs have risen considerably since 1939 and are currently very high. But costs vary considerably from year to year and from farm to farm with some growers securing high yields of good quality fruit at much lower costs than others. To aid you in studying your operations and costs, we have recently made a local survey and prepared a sample of inputs and costs which appears on Page 2. These figures are not represented as average but are typical of well-managed local orchards, under present conditions, with yields of 10 tons per acre.

IRRIGATION - Pears can be profitably grown on our best deep soils without irrigation but where water is available it is profitable to irrigate in order to improve yields and fruit quality. Profitable production on poorer bench land soils is not possible without irrigation.

SPRAYING - Recent years have brought rapid changes in pest and disease control materials and methods of application. In the sample costs on the next page we have provided for eight sprays and two dustings for the season, as explained in our current spray schedule.

FERTILIZING - Most of our local orchards respond to fertilization as they become older. It is considered advisable to follow a program providing for the maintenance of soil fertility through the use of cover crops and the application of manures or commercial fertilizers. This general program is provided for in the sample costs. More specific information on fertilization may be obtained from our office.

Sample Inputs and Costs for Producing Bartlett Pears in Mendocino County  
with a Yield of 10 tons per Acre.

|  | Hours per Acre   |                  |                 | Cost<br>Per<br>Acre | Cost<br>Per<br>Ton |
|--|------------------|------------------|-----------------|---------------------|--------------------|
|  | Man<br>Labor     | 20 HP<br>Tractor | 1½ ton<br>Truck |                     |                    |
| Pruning 90 trees @ 75¢                                     | 60               |                  |                 | \$ 67.50            |                    |
| Brush disposal, large limbs only                           | 2                |                  | 1               | 4.15                |                    |
| Planting cover crop by hand seeder                         | 1                |                  |                 | .85                 |                    |
| Applying fertilizer, various methods                       | 2                |                  | 1               | 4.15                |                    |
| Blight control, cutting out by hand                        | 6                |                  |                 | 5.10                |                    |
| Dusting twice for blight by plane, contract                |                  |                  |                 | 3.20                |                    |
| Spraying eight times                                       | 10               | 9                | 1               | 25.80               |                    |
| Cultivation and ridging for irrigation                     | 5                | 5                |                 | 12.50               |                    |
| Irrigation two times                                       | 12               |                  |                 | 10.20               |                    |
| Miscellaneous other cultural labor                         | 6                | 1                | 1               | 9.20                |                    |
| Total cultural labor                                       | 104              | 15               | 4               | \$142.65            | \$ 14.26           |
| Picking, @ 15¢ box plus supervision                        | 85               |                  |                 | 72.00               | 7.20               |
| Hauling boxes & fruit to packing house                     | 12               |                  | 8               | 30.40               | 3.04               |
| Total labor cost   | 201              | 15               | 12              | \$245.05            | \$ 24.50           |
| Irrigation water or power for pumping 16 acre inches       |                  |                  |                 | 6.00                |                    |
| Fertilizer, commercial and manure as preferred             |                  |                  |                 | 12.00               |                    |
| Cover crop seed, barley 25#, vetch 30#                     |                  |                  |                 | 4.00                |                    |
| Spray material and dust                                    |                  |                  |                 | 45.00               |                    |
| Miscellaneous other materials                              |                  |                  |                 | 2.00                |                    |
| Total material cost  |                  |                  |                 | \$ 69.00            | \$ 6.90            |
| General expense, estimated at 5% of above costs            |                  |                  |                 | 15.70               |                    |
| County taxes, \$225 value @ \$4.25 rate                    |                  |                  |                 | 10.00               |                    |
| Repairs to equipment                                       |                  |                  |                 | 4.00                |                    |
| Compensation & Soc. Sec. insurance on hired labor 120 hr.  |                  |                  |                 | 3.00                |                    |
| Total cash overhead costs                                  |                  |                  |                 | \$ 32.70            | \$ 3.27            |
| Total cash costs   |                  |                  |                 | \$346.75            | \$ 34.67           |
| Investment overhead based<br>on a 20-acre orchard<br>unit. | Orig.<br>Cost    | Aver.<br>Value   | 5%<br>Int.      | Depreciation        |                    |
|  | Dollars per acre |                  |                 |                     |                    |
| Trees (cost to bearing age \$600.)                         | 600              | 300              | 15.00           | 15.00               |                    |
| Building for equipment                                     | 80               | 40               | 2.00            | 2.00                |                    |
| Labor camp facilities                                      | 50               | 25               | 1.25            | 3.00                |                    |
| Irrigation pump & pipe                                     | 100              | 50               | 2.50            | 5.00                |                    |
| Tillage equipment except tractor                           | 40               | 20               | 1.00            | 2.00                |                    |
| Spraying equipment   | 120              | 60               | 3.00            | 8.00                |                    |
| Misc. other equipment, boxes, etc.                         | 60               | 30               | 1.50            | 9.00                |                    |
| Land   | 400              | 400              | 20.00           | -                   |                    |
| Total investment   | 1,450            | 925              |                 |                     |                    |
| Total depreciation   |                  |                  |                 | 44.00               | 4.40               |
| Total interest on investment                               |                  |                  | 46.25           |                     | 4.63               |
| Total all costs  |                  |                  |                 | \$437.00            | \$ 43.70           |

Labor costs are figured at the following rates per hour: Man labor \$1.00 for spraying, tractor & truck work, \$.85 for other work, 20 hp tractor \$1.50, 1½-ton truck \$2.30. Pruning and picking are assumed at piece rates, and the hours shown are estimates of time required by skilled workers. A working operator on 20 acres could do about 81 hours of the work shown and that was assumed in figuring compensation insurance. Orchards in the Potter Valley Irrigation District would have a lower investment for irrigation facilities. An owned truck is assumed for convenience - hired hauling would be cheaper.

The above costs are a sample assuming good cultural care at current prevailing prices. Use the above as a guide or standard of comparison. Estimate your own costs and write them in the margin.