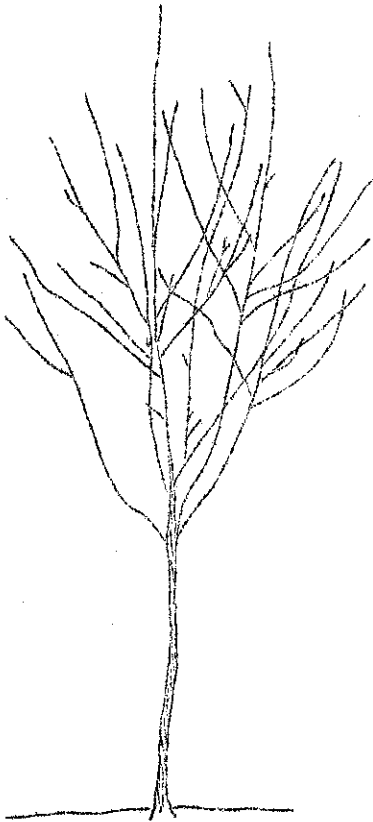


# COSTS OF DEVELOPING

AN

# APPLE ORCHARD



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Planting and caring for an apple orchard is like buying a house on the installment plan. The cost of the trees represents a small down payment to which must be added the cost of labor, materials, interest, taxes, and other items. The total becomes a surprisingly large figure before the trees come into bearing.

Some evidence on this point has been collected by a Western New York fruit farmer who has been in the cost-account project for a number of years. He has planted 5 different blocks of orchard since he has been keeping these detailed records. In 1932 he planted a 13-acre field to McIntosh and a 7.3-acre field to Rhode Island Greenings (table 1). Trees at that time cost him 15 cents each, amounting to about \$6 to \$8 an acre. The cost of preparing the land, setting the stakes, and planting the trees amounted to 50 per cent more than the cost of the trees themselves. Taxes amounted to a little more than a dollar an acre a year. Interest on the value of the land added another \$3 or \$4 an acre to the cost of getting these orchards through their first year. By the spring of 1933, this farmer had invested a total of \$27.54 per acre in the McIntosh orchard, and \$21.78 per acre in the Greening orchard, in addition to the value of the land used by the trees.

One might assume that after the first year the farmer could let the trees grow and incur very little additional expense. But the taxes, interest on the investment, and the cost of the care given the young trees amounted to an average of more than \$20 an acre each year.

Table 1. Cost of Planting and Developing an Apple Orchard  
Western New York Farm

Orchard number	1	2	3	4	5	
Year set	1932	1932	1933	1935	1939	
Variety	McIntosh	Rhode Island Greening	Northern Spy	McIntosh	Rhode Island Greening	
Acres	13.0	7.3	10.0	7.3	6.0	
Cost per acre of planting and first year's care:						Average
Trees	\$ 8.08	\$ 6.44	\$13.00	\$22.33	\$17.16	\$13.40
Labor	6.15	4.79	8.00	4.93	6.50	6.07
Horse work and equipment use	6.92	5.48	1.10	1.10	4.67	3.85
Taxes	1.38	1.10	1.20	1.37	1.00	1.21
Interest on value of land	4.15	3.29	3.80	3.36	3.25	3.57
All other	1.01	0.68	4.30	2.80	1.59	2.08
Total	27.69	21.78	31.40	35.89	34.17	30.18
Use of land for inter-crops	0.15	-	5.40	5.48	-	2.21
Net cost for first year	27.54	21.78	26.00	30.41	34.17	27.97
Cost per acre per year, after the first year:						
Labor	\$ 6.33	\$ 3.74	\$ 1.95	\$ 4.83		\$ 4.21
Horse work	2.38	1.45	0.70	1.95		1.62
Equipment use	1.59	0.96	0.82	1.47		1.21
Fertilizer	2.90	2.35	2.38	2.29		2.48
Mulch	0.42	1.96	1.48	0.96		1.21
Poison bait	0.49	0.45	0.42	0.48		0.46
Share of taxes	2.51	2.19	1.82	2.16		2.17
5% interest on value of land	4.15	3.29	3.80	3.36		3.65
5% interest on cost	4.36	4.09	1.95	2.84		3.31
All other	6.64	2.75	0.60	3.26		3.31
Total	31.77	23.23	15.92	23.60		23.63
Use of land for inter-crops	6.91	1.41	1.85	-		2.54
Net cost after first year	24.86	21.82	14.07	23.60		21.09

In the spring of 1940, orchards 1 and 2 were eight years old. If the value of the land is added to the cost incurred in planting and in subsequent care, the total cost per acre for the McIntosh orchard has been \$284.64, and for the Greening orchard \$240.27 (table 2).

Table 2. Cost per Acre of Land and Trees, Five Young Apple Orchards  
Western New York Farm

Orchard number	1	2	3	4	5
Years of age in 1940	8	8	7	5	1
Value of bare land	\$ 83.08	\$ 65.75	\$ 76.00	\$ 67.12	\$ 65.00
Cost of planting and first year's care	27.54	21.78	26.00	30.41	34.17
Cost per year from time of planting	24.86	21.82	14.07	23.60	-
Cost per acre of orchard, 1940	\$284.64	\$240.27	\$186.42	\$191.93	\$ 99.17

In 1933 he planted a Northern Spy block of 10 acres. The first year, it cost \$26 per acre and in subsequent years an average of \$14 (table 1). Now he has \$186 per acre invested in this seven-year-old orchard (table 2).

Two years later, a 7.3-acre block of McIntosh was planted. Costs during the five years have mounted up close to the \$200-per-acre mark.

In 1939 a fifth orchard of Rhode Island Greenings was planted. In the one year since this orchard has been out, the grower has invested \$34.17 per acre.

If these 5 orchards are typical of the costs of planting a young orchard, the cost for the first year will be approximately \$28, about one-half of which will be for the trees. Costs of caring for a young orchard which has been

planted will amount to about \$21 per acre per year, after allowing for returns from fruit harvested from the young trees, and for the value of land for inter-crops. If a young orchard is set on land valued at \$70 an acre, the costs will be about \$300 per acre by the time the trees are ten years old.

The fact that costs on this farm are not excessive is indicated by data which is reported in more detail by G. P. Scoville.<sup>1/</sup> A large apple orchard in the Champlain Valley was set on land valued at \$38. The cost of the trees and the first year's planting and care added about \$44 per acre to the investment. In the following years, the cost has averaged about \$30. At the end of the seventh year, the cost of this orchard has totaled \$228 per acre. At this rate, the cost at the end of the tenth year will be about \$357 per acre, when the

Table 3. Cost per Acre of Land and Trees, Young Apple Orchards

Orchards	Average of 5 orchards, Western New York	Champlain Valley	Central New York woodlot orchard	Intersect with peaches, Western New York
Year set	1932 to 1939	1930 to 1934	1917 and 1918	1909
Years of age at end of record	6	7	10	13
Average per acre				
Value of bare land	\$ 71.39	\$ 38.00	\$ 28.80	\$150.00
Cost of planting and first year's care	27.97	44.48	35.45	9.11
Cost per year after first year	21.09	30.51	35.69	9.11
Estimated cost to ten years of age	\$289.12	\$357.07	\$385.46	\$241.10

<sup>1/</sup> Apple Orchards: Cost of Developing, Values, and Financial Returns. By G. P. Scoville. New York Agr. Exp. Sta. Bul. 717. 1939.

value of the land is included as part of the cost.

Another orchard in Central New York was planted on a woodlot valued at about \$29 per acre. Calculated on the same basis, the cost of this orchard at the tenth year would be almost \$400 per acre.

A Western New York farmer who interset his apples with peaches was able to keep his costs far below the other growers. The cost of his apple orchard at the end of the tenth year was about \$241, but \$150 was the value of the land and only \$91 the cost of getting the trees to ten years of age.

This evidence indicates that it costs from \$250 to \$400 an acre to develop a bearing apple orchard. An investment of this magnitude calls for the most careful study of soil, climate, and probable market.

Before planting an orchard, every fruit grower should get the help of the College of Agriculture. A member of the Department of Pomology spends several weeks every fall in making careful examinations of soils of proposed locations of new orchards. This service is free to fruit growers of the State. Requests are made through the county agricultural agent.