

CHAPTER II

AGE AND VARIETY OF WASHINGTON FRUIT TREES

This chapter presents the varieties and age groups of the six major kinds of fruit trees in orchards in the State of Washington in the early part of the year 1949. The classifications are based upon the Washington Fruit Tree Survey which was made during the winter of 1948-49. The purposes, procedures, and results of this survey are discussed in the following paragraphs as an aid to users of the estimates presented in this chapter.

Purpose

For many years the fruit industry in the State of Washington needed basic data on the state's fruit trees. Although the United States Census enumerated fruit tree numbers every fifth year, there were no reliable figures available on the ages and varieties of the trees. The demands for such information became more urgent with the rapid expansion in new plantings in the years immediately following the end of World War II. The Washington Fruit Tree Survey was planned and undertaken primarily in response to these demands by the fruit industry.

Plan

The survey was a cooperative project conducted by the Division of Horticulture of the Washington State Department of Agriculture and the Washington Crop and Livestock Reporting Service, a cooperative office of the Washington and United States Departments of Agriculture. The Crop and Livestock Reporting Service was responsible for designing and mailing the schedule, editing and tabulating the returns, and sampling the growers who did not return schedules. The Division of Horticulture was responsible for distributing survey schedules to growers not on the mailing list and for attempting to make the survey as complete as possible.

Chronology of Operations

During the fall of 1948 a master list of the state's fruit growers was assembled. Lists of growers were obtained from many sources and cross-checked for duplication, in an effort to make the master list as complete and up-to-date as possible. Among those who contributed to the master list were the Washington Apple Commission, the Washington Soft Fruit Commission, grower's organizations, fruit buyers, and the Bureau of Agricultural Economics. Because of the many sales of orchards during and just after the war, complete,

up-to-date lists were hard to maintain.

A grower's record card was designed to obtain the desired information, and the first mailing was made to all growers on the master list in December, 1948. Second requests were mailed in February 1949 to those who had not returned the first card. In the early spring of 1949 the Horticultural Inspectors made an intensive effort to have the record cards filled out and returned by growers in their respective districts. The inspectors assisted growers in completing the cards and distributed cards to growers who were not on the master mailing list. All grower record cards returned from the two mailings and from those distributed by Horticultural Inspectors were edited and tabulated as received in the early months of 1949.

Response to the mailed survey was very good, and tabulated returns represented a very substantial part of all the state's fruit trees. However, it was not possible to obtain a return of 100 percent on such a survey and stay within the budget. Returns from the mailed survey represented therefore, a large sample of the state's fruit trees, rather than a complete count. The sample was of sufficient size to furnish a reliable measure of the age and variety characteristics of all the state's trees, but the problem of estimating total tree numbers remained. To expand the tree numbers in the mailed sample to the actual tree numbers in the universe being sampled, it was necessary to determine the degree of incompleteness in the returns from the mailed survey.

For this purpose an enumerative survey was made in the late summer of 1949 in areas of the principal fruit-producing districts selected at random. A personal check was made on every orchard within each of the chosen areas. Grower-record cards were completed by the enumerator for all orchards which had not been previously reported in the mailed survey.

Results of the enumerative survey were used principally to determine "expansion factors" for each kind of fruit in each of the principal counties. These expansion factors were applied to the tabulated totals from the mailed survey to obtain the estimates of total numbers, and these figures were then checked with the 1950 census totals.

Size of the Mailed Sample

Because the age and variety classification in this chapter are based upon a sample—in this case the returns from

the mailed survey—the size of the sample is important. With many geographic areas and the several kinds of fruit trees involved, there was considerable variation in the degree of coverage obtained by means of the mailed survey. Two of the many factors contributing to this variation in response were the differences in completeness of the original mailing list and differences in the extent of the follow-up which Horticultural Inspectors were able to make.

The percentage return of grower record cards from the mailed survey was substantially higher from the principal commercial producing areas than from the state as a whole. The number of trees reported by growers on the mailed survey ranged from more than one-third to nearly one-half the state totals for the 6 major kinds of fruit trees. From the mailed inquiry, usable schedules were returned by a total of 3,342 fruit growers throughout the state.

Apples The total number of apple trees reported by growers on the mailed survey was 1,325,300, representing a sample of 36.5 percent of the estimated total number of apple trees in the state in 1949.

Apricots The total number of apricot trees reported by growers on the mailed survey was 222,300, representing a sample of 42 percent of the estimated total number of apricot trees in the state in 1949.

Cherries The total number of cherry trees reported by growers on the mailed survey was 257,400, representing a sample of 41 percent of the estimated total number of cherry trees in the state in 1949.

Peaches The total number of peach trees reported by growers on the mailed survey was 518,700, representing a sample of 37 percent of the estimated total number of peach trees in the state in 1949.

Pears The total number of pear trees reported by growers on the mailed survey was 781,600, representing a sample of 47 percent of the estimated total number of pear trees in the state in 1949.

Prunes and Plums The total number of prune and plum trees reported by growers on the mailed survey was 273,400, representing a sample of 36 percent of the estimated total number of prune and plum trees in the state in 1949.

Size of Enumerated Survey

On the enumerative survey which was made as a supplement to the mailed survey, information was obtained from a total of 606 fruit growers in 68 selected geographic areas. In the sample checked by enumeration there were 45,000 apricot trees, 260,000 apple trees, 27,000 cherry trees, 90,000 peach trees, 81,000 pear trees, and 23,000 prune and plum trees.

Appraisal of Result

The number of trees shown in the tables meet the standards of reasonable accuracy. They are not presented as exact to the last tree since this is an obviously impossible measure. During the time that elapses between the beginning and the end of any survey there

are changes which take place. Even though the tree fruit survey was taken during the period of the year when there was the least activity in the orchards there were changes being made which resulted in differences in tree numbers. However, as stated before, the numbers are reasonably accurate, and certainly—even by major counties—the totals agree very well with the United States Census.

Two characteristics of these tables are worthy of note. First of all, the data applies to 1949. Since 1949 there have been removals and replantings of fruit trees which have changed the picture considerably. This was especially true in areas which suffered severe winter damage in the winters of 1948-49 and again in 1949-50. However, this does not obviate the tables since it provides

a base for measurement not only for the state as a whole but in the major counties.

Secondly the number of trees recorded as planted in a certain year or a certain period represents only net number still standing in 1949. Under no circumstances should the number of trees planted in any year or period be construed to mean the total number planted. It represents plantings minus removals. This is especially important in soft fruits such as apricots and peaches, which because they bear at a rather early age, are sometimes interplanted and then removed to make way for the main plantings as those trees grow larger. It is this "net number" characteristic of tree numbers which results in some surprising age characteristics of Washington fruit trees.

Table 9.—Apples: Number of Trees by Variety and by Year of Planting, Selected Counties, Washington, 1949

| County and Variety Grown | NUMBER OF TREES BY YEAR OF PLANTING | | | | | | | | | | | Total Number of Trees of All Ages | |
|---------------------------|-------------------------------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|-----------------------------------|------------------|
| | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940-1936 | 1935-1931 | 1930-1921 | | 1920 or Before |
| CHELAN COUNTY | | | | | | | | | | | | | |
| Winesap | 1,480 | 2,760 | 9,490 | 1,210 | 1,580 | 2,100 | 880 | 1,330 | 2,730 | 12,190 | 33,810 | 143,400 | 212,960 |
| Standard Delicious | 240 | 450 | 60 | 110 | 210 | 470 | 160 | 330 | 2,850 | 10,510 | 67,540 | 114,750 | 197,780 |
| Red Delicious | 17,240 | 15,190 | 17,440 | 8,860 | 7,200 | 7,700 | 4,270 | 10,800 | 23,910 | 76,930 | 61,890 | 15,970 | 266,490 |
| Golden Delicious | 1,580 | 2,780 | 3,550 | 830 | 1,190 | 920 | 1,440 | 2,500 | 4,010 | 3,880 | 3,880 | 2,090 | 28,650 |
| Jonathan | 430 | 1,500 | 4,490 | 780 | 820 | 780 | 320 | 500 | 1,210 | 4,170 | 3,010 | 29,780 | 47,790 |
| Rome Beauty | 40 | 230 | 270 | 50 | 40 | 50 | 60 | 60 | 840 | 3,360 | 4,280 | 20,480 | 29,790 |
| All Other Varieties | 730 | 1,540 | 970 | 720 | 1,110 | 300 | 90 | 30 | 1,080 | 2,410 | 2,830 | 12,860 | 24,640 |
| Total..... | 21,840 | 24,450 | 36,270 | 12,560 | 12,150 | 12,410 | 7,220 | 15,550 | 35,630 | 113,450 | 177,240 | 339,330 | 808,100 |
| DOUGLAS COUNTY | | | | | | | | | | | | | |
| Winesap | 2,800 | 4,030 | 5,140 | 970 | 290 | 650 | 40 | 10 | 320 | 4,730 | 14,690 | 34,540 | 69,200 |
| Standard Delicious | 10 | 10 | 300 | 300 | ..... | 40 | ..... | ..... | 600 | 370 | 12,550 | 23,920 | 36,890 |
| Red Delicious | 5,070 | 6,130 | 6,320 | 3,150 | 680 | 1,260 | 850 | 540 | 2,930 | 12,000 | 29,570 | 5,840 | 74,340 |
| Golden Delicious | 1,370 | 1,910 | 2,160 | 140 | 190 | 10 | 140 | 180 | 70 | 510 | 3,840 | 10 | 10,530 |
| Jonathan | 440 | 1,950 | 2,550 | 1,260 | 570 | 800 | 290 | 850 | 1,580 | 3,460 | 2,410 | 9,470 | 25,630 |
| Rome Beauty ..... | ..... | ..... | ..... | 50 | ..... | ..... | ..... | ..... | ..... | 1,110 | 1,670 | 1,180 | 4,010 |
| All Other Varieties | 820 | 300 | 370 | 940 | 20 | ..... | ..... | ..... | 20 | 280 | 1,360 | 3,590 | 7,600 |
| Total..... | 10,590 | 15,230 | 16,540 | 6,810 | 1,750 | 2,760 | 1,320 | 1,580 | 5,520 | 22,460 | 65,000 | 77,650 | 228,200 |
| OKANOGAN COUNTY | | | | | | | | | | | | | |
| Winesap | 2,110 | 5,410 | 9,740 | 3,670 | 880 | 740 | 30 | 120 | 1,320 | 12,260 | 26,870 | 90,460 | 153,690 |
| Standard Delicious | 480 | 850 | 2,040 | 90 | 770 | 350 | ..... | 80 | 2,040 | 17,110 | 47,190 | 71,930 | 142,930 |
| Red Delicious | 15,690 | 25,330 | 14,360 | 4,220 | 8,720 | 12,470 | 430 | 1,450 | 10,940 | 60,860 | 44,820 | 6,310 | 214,500 |
| Golden Delicious | 1,760 | 5,610 | 7,370 | 2,040 | 3,060 | 4,710 | 400 | 140 | 2,050 | 4,610 | 4,790 | 400 | 36,940 |
| Jonathan | 600 | 1,740 | 3,750 | 920 | 1,580 | 4,910 | 30 | 580 | 550 | 1,590 | 1,950 | 22,520 | 40,760 |
| Rome Beauty | 150 | 70 | 110 | ..... | 1,660 | 10 | ..... | 10 | 510 | 1,860 | 3,710 | 5,610 | 13,700 |
| All Other Varieties | 1,130 | 1,090 | 530 | 40 | 50 | 30 | 10 | 30 | 300 | 2,130 | 3,130 | 7,500 | 15,960 |
| Total..... | 21,920 | 40,100 | 37,000 | 10,980 | 16,720 | 23,320 | 800 | 2,410 | 17,720 | 109,410 | 132,500 | 204,730 | 618,500 |
| YAKIMA COUNTY | | | | | | | | | | | | | |
| Winesap | 13,510 | 22,490 | 26,220 | 11,330 | 11,800 | 3,380 | 3,460 | 2,710 | 13,080 | 34,880 | 128,780 | 295,400 | 567,040 |
| Standard Delicious | 1,070 | 3,110 | 4,390 | 1,800 | 1,010 | 850 | 1,230 | 840 | 7,320 | 32,160 | 157,900 | 103,820 | 315,500 |
| Red Delicious | 34,610 | 37,550 | 26,980 | 18,300 | 22,430 | 5,650 | 7,690 | 9,410 | 28,300 | 64,990 | 23,170 | 8,110 | 287,490 |
| Golden Delicious | 5,230 | 8,510 | 5,660 | 2,150 | 1,390 | 410 | 880 | 860 | 4,340 | 6,840 | 2,890 | 1,090 | 40,250 |
| Jonathan | 1,800 | 1,220 | 8,050 | 6,110 | 6,700 | 1,320 | 1,280 | 2,180 | 4,400 | 7,270 | 18,680 | 101,000 | 160,010 |
| Rome Beauty | 690 | 2,100 | 2,980 | 290 | 1,760 | 80 | 370 | 110 | 980 | 5,650 | 23,410 | 55,360 | 98,780 |
| All Other Varieties | 2,720 | 1,730 | 1,050 | 1,570 | 1,040 | 370 | 40 | 410 | 1,810 | 7,370 | 7,150 | 33,370 | 58,630 |
| Total..... | 59,630 | 76,710 | 75,330 | 41,550 | 46,130 | 12,360 | 14,950 | 16,520 | 60,230 | 150,160 | 361,980 | 598,150 | 1,522,700 |
| ALL OTHER COUNTIES | | | | | | | | | | | | | |
| Winesap | 2,240 | 30 | 470 | 10 | 20 | 130 | 10 | 2,250 | 770 | 2,850 | 1,340 | 15,440 | 25,550 |
| Standard Delicious | 30 | 270 | 60 | 40 | 70 | 90 | 90 | 50 | 3,670 | 4,850 | 8,650 | 26,210 | 44,080 |
| Red Delicious | 22,060 | 2,460 | 3,840 | 4,830 | 3,100 | 1,510 | 2,130 | 4,730 | 29,910 | 40,400 | 16,780 | 2,770 | 134,550 |
| Golden Delicious | 1,970 | 820 | 1,680 | 2,780 | 30 | 160 | ..... | 1,340 | 7,210 | 2,290 | 580 | 30 | 18,890 |
| Jonathan | 250 | 1,040 | 1,010 | 240 | 210 | 10 | 1,090 | 20 | 2,660 | 1,030 | 2,830 | 6,980 | 17,280 |
| Rome Beauty | 5,610 | 1,850 | 2,310 | 260 | 760 | 50 | 60 | 1,170 | 3,430 | 25,180 | 14,250 | 17,310 | 72,240 |
| All Other Varieties | 14,330 | 1,110 | 5,450 | 940 | 1,630 | 920 | 950 | 3,870 | 8,570 | 7,030 | 27,790 | 69,120 | 141,710 |
| Total..... | 46,520 | 7,570 | 14,820 | 9,100 | 5,820 | 2,870 | 4,240 | 13,430 | 56,220 | 83,630 | 72,220 | 137,800 | 454,300 |
| TOTAL STATE | | | | | | | | | | | | | |
| Winesap | 22,230 | 35,610 | 51,060 | 17,190 | 14,570 | 7,000 | 4,420 | 6,420 | 18,220 | 60,010 | 205,490 | 579,340 | 1,028,370 |
| Standard Delicious | 1,920 | 4,690 | 6,550 | 2,340 | 2,060 | 1,800 | 1,480 | 1,300 | 16,480 | 65,000 | 293,830 | 339,730 | 737,180 |
| Red Delicious | 94,700 | 86,660 | 68,940 | 39,300 | 42,130 | 28,980 | 15,320 | 26,930 | 94,990 | 264,180 | 176,230 | 39,060 | 977,460 |
| Golden Delicious | 11,910 | 19,630 | 20,420 | 7,940 | 5,860 | 6,210 | 2,860 | 5,020 | 17,680 | 18,130 | 15,980 | 3,620 | 135,290 |
| Jonathan | 3,520 | 7,450 | 19,850 | 9,310 | 9,880 | 7,820 | 2,920 | 4,130 | 10,400 | 17,520 | 28,920 | 169,750 | 291,470 |
| Rome Beauty | 6,490 | 4,250 | 5,670 | 650 | 4,220 | 190 | 520 | 1,850 | 5,760 | 37,160 | 47,320 | 96,940 | 215,530 |
| All Other Varieties | 19,730 | 5,770 | 8,370 | 4,210 | 3,850 | 1,620 | 1,060 | 4,840 | 11,780 | 19,210 | 42,160 | 126,440 | 248,540 |
| Total..... | 160,500 | 164,060 | 180,860 | 81,000 | 82,570 | 53,620 | 28,620 | 49,490 | 175,320 | 488,110 | 809,930 | 1,357,720 | 3,631,800 |

Table 11.—Apple Trees: Number by Variety and Year of Planting, Selected Counties, Washington, 1949

| Variety and Year of Planting | NUMBER OF TREES BY COUNTIES | | | | | Variety and Year of Planting | NUMBER OF TREES BY COUNTIES | | | | |
|------------------------------|-----------------------------|----------------|-----------------|----------------|------------------|------------------------------|-----------------------------|----------------|-----------------|------------------|------------------|
| | Chelan County | Douglas County | Okanogan County | Yakima County | State Total | | Chelan County | Douglas County | Okanogan County | Yakima County | State Total |
| WINESAPS | | | | | | JONATHANS | | | | | |
| 1948..... | 1,480 | 2,800 | 2,110 | 13,510 | 22,220 | 1948..... | 430 | 440 | 600 | 1,800 | 3,520 |
| 1947..... | 2,760 | 4,930 | 5,410 | 22,490 | 35,610 | 1947..... | 1,500 | 1,950 | 1,740 | 1,230 | 7,450 |
| 1946..... | 9,490 | 5,140 | 9,740 | 26,220 | 51,000 | 1946..... | 4,490 | 2,550 | 3,750 | 8,050 | 19,850 |
| 1941-1945..... | 7,100 | 1,900 | 5,440 | 32,680 | 49,000 | 1941-1945..... | 3,200 | 3,770 | 8,020 | 17,590 | 34,000 |
| 1936-1940..... | 2,730 | 220 | 1,330 | 13,080 | 18,220 | 1936-1940..... | 1,210 | 1,590 | 550 | 4,400 | 10,400 |
| 1931-1935..... | 12,190 | 4,730 | 12,300 | 84,880 | 66,910 | 1931-1935..... | 4,170 | 3,400 | 1,500 | 7,270 | 17,520 |
| 1921-1930..... | 33,510 | 14,080 | 26,870 | 128,780 | 205,490 | 1921-1930..... | 3,010 | 2,410 | 1,900 | 18,080 | 28,020 |
| 1920 or Before..... | 145,400 | 34,540 | 90,460 | 205,400 | 579,240 | 1920 or Before..... | 20,180 | 0,470 | 22,520 | 101,000 | 169,750 |
| Total..... | 212,960 | 69,200 | 153,620 | 567,040 | 1,028,370 | Total..... | 47,790 | 25,630 | 40,760 | 160,010 | 291,470 |
| STANDARD DELICIOUS | | | | | | ROME BEAUTY | | | | | |
| 1948..... | 340 | | 480 | 1,070 | 1,920 | 1948..... | 40 | | 150 | 690 | 6,490 |
| 1947..... | 450 | 10 | 850 | 3,110 | 4,090 | 1947..... | 220 | | 70 | 2,100 | 4,250 |
| 1946..... | 60 | | 2,040 | 4,390 | 6,550 | 1946..... | 270 | | 110 | 2,080 | 5,670 |
| 1941-1945..... | 1,280 | 340 | 1,290 | 5,730 | 8,980 | 1941-1945..... | 290 | 50 | 1,680 | 2,610 | 6,930 |
| 1936-1940..... | 2,850 | 600 | 2,040 | 7,320 | 16,480 | 1936-1940..... | 840 | | 510 | 980 | 5,760 |
| 1931-1935..... | 10,510 | 870 | 17,110 | 32,160 | 65,000 | 1931-1935..... | 3,390 | 1,110 | 1,800 | 5,650 | 37,160 |
| 1921-1930..... | 67,540 | 12,550 | 47,190 | 167,900 | 293,830 | 1921-1930..... | 4,280 | 1,670 | 3,710 | 23,410 | 47,320 |
| 1920 or Before..... | 114,750 | 23,020 | 71,930 | 103,820 | 339,730 | 1920 or Before..... | 20,480 | 1,180 | 5,610 | 55,360 | 99,940 |
| Total..... | 197,780 | 36,800 | 142,920 | 315,500 | 737,180 | Total..... | 29,790 | 4,010 | 13,700 | 93,780 | 213,520 |
| RED DELICIOUS | | | | | | ALL OTHER VARIETIES | | | | | |
| 1948..... | 17,240 | 5,070 | 15,690 | 34,610 | 94,700 | 1948..... | 730 | 820 | 1,130 | 2,720 | 19,730 |
| 1947..... | 15,190 | 6,130 | 25,330 | 37,530 | 86,660 | 1947..... | 1,540 | 300 | 1,090 | 1,730 | 5,770 |
| 1946..... | 17,440 | 6,320 | 14,360 | 26,980 | 68,940 | 1946..... | 970 | 370 | 530 | 1,000 | 8,370 |
| 1941-1945..... | 38,920 | 6,480 | 27,280 | 63,780 | 152,700 | 1941-1945..... | 2,920 | 960 | 160 | 3,430 | 15,080 |
| 1936-1940..... | 22,910 | 2,930 | 10,940 | 28,300 | 94,990 | 1936-1940..... | 1,080 | 30 | 300 | 1,810 | 11,780 |
| 1931-1935..... | 70,930 | 12,000 | 69,860 | 64,990 | 264,180 | 1931-1935..... | 2,410 | 280 | 2,120 | 7,370 | 19,210 |
| 1921-1930..... | 61,890 | 29,570 | 44,820 | 23,170 | 176,230 | 1921-1930..... | 2,830 | 1,200 | 3,130 | 7,150 | 42,160 |
| 1920 or Before..... | 15,970 | 5,840 | 6,310 | 8,110 | 39,000 | 1920 or Before..... | 12,860 | 3,500 | 7,500 | 33,370 | 126,440 |
| Total..... | 266,490 | 74,340 | 214,500 | 287,490 | 977,460 | Total..... | 34,640 | 7,600 | 15,900 | 58,630 | 248,540 |
| GOLDEN DELICIOUS | | | | | | TOTAL TREES | | | | | |
| 1948..... | 1,580 | 1,370 | 1,700 | 5,230 | 11,910 | 1948..... | 21,840 | 10,590 | 21,920 | 59,620 | 160,500 |
| 1947..... | 2,780 | 1,910 | 5,610 | 8,510 | 19,620 | 1947..... | 24,450 | 15,230 | 40,100 | 76,710 | 164,060 |
| 1946..... | 3,550 | 2,160 | 7,370 | 5,660 | 20,430 | 1946..... | 36,270 | 16,540 | 27,960 | 75,330 | 180,860 |
| 1941-1945..... | 6,880 | 660 | 19,350 | 5,690 | 27,800 | 1941-1945..... | 59,860 | 14,220 | 54,220 | 131,510 | 295,300 |
| 1936-1940..... | 4,910 | 70 | 2,650 | 4,340 | 17,680 | 1936-1940..... | 35,630 | 5,520 | 17,720 | 60,230 | 175,320 |
| 1931-1935..... | 3,880 | 510 | 4,610 | 6,840 | 18,130 | 1931-1935..... | 113,450 | 22,490 | 109,410 | 159,160 | 488,110 |
| 1921-1930..... | 3,880 | 3,840 | 4,790 | 3,890 | 15,280 | 1921-1930..... | 177,240 | 65,990 | 129,500 | 361,980 | 809,930 |
| 1920 or Before..... | 2,060 | 10 | 400 | 1,000 | 3,620 | 1920 or Before..... | 339,330 | 77,650 | 204,730 | 508,150 | 1,357,720 |
| Total..... | 28,650 | 10,530 | 36,940 | 40,250 | 135,260 | Total..... | 808,100 | 228,300 | 618,500 | 1,522,700 | 3,631,860 |

Table 12.—Apple Trees: Percentage of Trees by Variety and Year of Planting, Selected Counties, Washington, 1949

| Variety and Year of Planting | PERCENTAGE OF TREES BY COUNTIES | | | | | Variety and Year of Planting | PERCENTAGE OF TREES BY COUNTIES | | | | |
|------------------------------|---------------------------------|----------------|-----------------|---------------|--------------|------------------------------|---------------------------------|----------------|-----------------|---------------|---------------|
| | Chelan County | Douglas County | Okanogan County | Yakima County | State Total | | Chelan County | Douglas County | Okanogan County | Yakima County | State Total |
| WINESAPS | | | | | | JONATHANS | | | | | |
| 1948..... | .7 | 4.2 | 1.4 | 2.4 | 2.1 | 1948..... | .0 | 1.7 | 1.5 | 1.1 | 1.2 |
| 1947..... | 1.3 | 7.1 | 3.5 | 4.0 | 3.5 | 1947..... | 3.1 | 7.6 | 4.3 | .8 | 2.6 |
| 1946..... | 4.5 | 7.4 | 6.3 | 4.6 | 5.0 | 1946..... | 9.4 | 9.9 | 9.2 | 5.0 | 6.8 |
| 1941-1945..... | 3.3 | 2.8 | 3.6 | 5.8 | 4.8 | 1941-1945..... | 6.8 | 14.7 | 19.7 | 11.0 | 11.7 |
| 1936-1940..... | 1.3 | .5 | .9 | 2.3 | 1.8 | 1936-1940..... | 2.5 | 6.2 | 1.3 | 2.8 | 3.6 |
| 1931-1935..... | 5.7 | 6.8 | 8.0 | 6.1 | 6.5 | 1931-1935..... | 8.7 | 13.5 | 3.9 | 4.5 | 6.0 |
| 1921-1930..... | 15.9 | 21.3 | 17.5 | 22.7 | 20.0 | 1921-1930..... | 6.3 | 9.4 | 4.9 | 11.7 | 9.9 |
| 1920 or Before..... | 67.3 | 49.9 | 58.8 | 52.1 | 56.3 | 1920 or Before..... | 62.3 | 37.0 | 55.2 | 63.1 | 58.2 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| STANDARD DELICIOUS | | | | | | ROME BEAUTY | | | | | |
| 1948..... | .2 | | .3 | .3 | .3 | 1948..... | .1 | | 1.1 | .7 | 3.0 |
| 1947..... | .2 | | .6 | 1.0 | .6 | 1947..... | .8 | | .5 | 2.2 | 2.0 |
| 1946..... | | | 1.4 | 1.4 | .9 | 1946..... | .9 | | .8 | 3.2 | 2.7 |
| 1941-1945..... | | .9 | .9 | 1.9 | 1.2 | 1941-1945..... | 1.0 | 1.3 | 12.3 | 2.8 | 3.2 |
| 1936-1940..... | 1.4 | .9 | 1.4 | 2.3 | 2.2 | 1936-1940..... | 2.8 | | 3.7 | 1.1 | 2.7 |
| 1931-1935..... | 5.3 | 1.0 | 12.0 | 10.2 | 8.8 | 1931-1935..... | 11.3 | 27.7 | 13.6 | 6.0 | 17.4 |
| 1921-1930..... | 34.2 | 34.1 | 33.0 | 50.0 | 39.9 | 1921-1930..... | 14.4 | 41.6 | 27.1 | 25.0 | 22.2 |
| 1920 or Before..... | 58.0 | 62.4 | 50.4 | 32.9 | 46.1 | 1920 or Before..... | 68.7 | 29.4 | 40.9 | 59.0 | 46.8 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| RED DELICIOUS | | | | | | ALL OTHER VARIETIES | | | | | |
| 1948..... | 6.5 | 6.8 | 7.3 | 12.0 | 9.7 | 1948..... | 3.0 | 10.8 | 7.1 | 4.6 | 7.9 |
| 1947..... | 5.7 | 8.3 | 11.8 | 13.1 | 8.9 | 1947..... | 6.2 | 3.9 | 6.8 | 2.9 | 2.3 |
| 1946..... | 6.5 | 8.5 | 6.7 | 9.4 | 7.0 | 1946..... | 3.9 | 4.9 | 3.3 | 1.8 | 3.4 |
| 1941-1945..... | 14.6 | 8.6 | 12.8 | 22.3 | 15.7 | 1941-1945..... | 8.9 | 12.7 | 1.0 | 5.9 | 6.1 |
| 1936-1940..... | 8.6 | 3.9 | 5.1 | 9.8 | 9.7 | 1936-1940..... | 4.4 | .3 | 1.9 | 3.1 | 4.7 |
| 1931-1935..... | 28.9 | 16.2 | 32.5 | 22.6 | 27.0 | 1931-1935..... | 9.8 | 3.7 | 13.3 | 12.6 | 7.7 |
| 1921-1930..... | 23.2 | 29.8 | 29.9 | 8.0 | 18.0 | 1921-1930..... | 11.6 | 16.5 | 19.6 | 12.2 | 17.0 |
| 1920 or Before..... | 6.0 | 7.9 | 2.9 | 2.8 | 4.6 | 1920 or Before..... | 52.2 | 47.2 | 47.0 | 56.9 | 50.9 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| GOLDEN DELICIOUS | | | | | | TOTAL TREES | | | | | |
| 1948..... | 5.5 | 13.0 | 4.8 | 13.0 | 8.8 | 1948..... | 2.70 | 4.64 | 3.54 | 3.92 | 4.42 |
| 1947..... | 9.8 | 18.1 | 15.2 | 21.1 | 14.5 | 1947..... | 3.03 | 6.67 | 6.48 | 5.04 | 4.52 |
| 1946..... | 12.4 | 20.5 | 20.0 | 14.1 | 15.1 | 1946..... | 4.49 | 7.25 | 6.13 | 4.95 | 4.98 |
| 1941-1945..... | 24.0 | 6.3 | 28.0 | 14.1 | 20.6 | 1941-1945..... | 7.41 | 6.23 | 8.77 | 8.63 | 8.13 |
| 1936-1940..... | 14.0 | .7 | 5.5 | 10.8 | 13.1 | 1936-1940..... | 4.43 | 2.42 | 2.87 | 3.96 | 4.83 |
| 1931-1935..... | 13.5 | 4.8 | 12.4 | 17.0 | 13.4 | 1931-1935..... | 14.04 | 9.84 | 17.09 | 10.45 | 13.44 |
| 1921-1930..... | 13.5 | 26.5 | 13.0 | 7.2 | 11.8 | 1921-1930..... | 21.93 | 28.92 | 21.42 | 23.77 | 22.30 |
| 1920 or Before..... | 7.3 | .1 | 1.1 | 2.7 | 2.7 | 1920 or Before..... | 41.99 | 34.03 | 33.10 | 39.28 | 37.38 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | Total..... | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

VARIETY OF APPLE TREES IN MAJOR APPLE ORCHARD AREAS

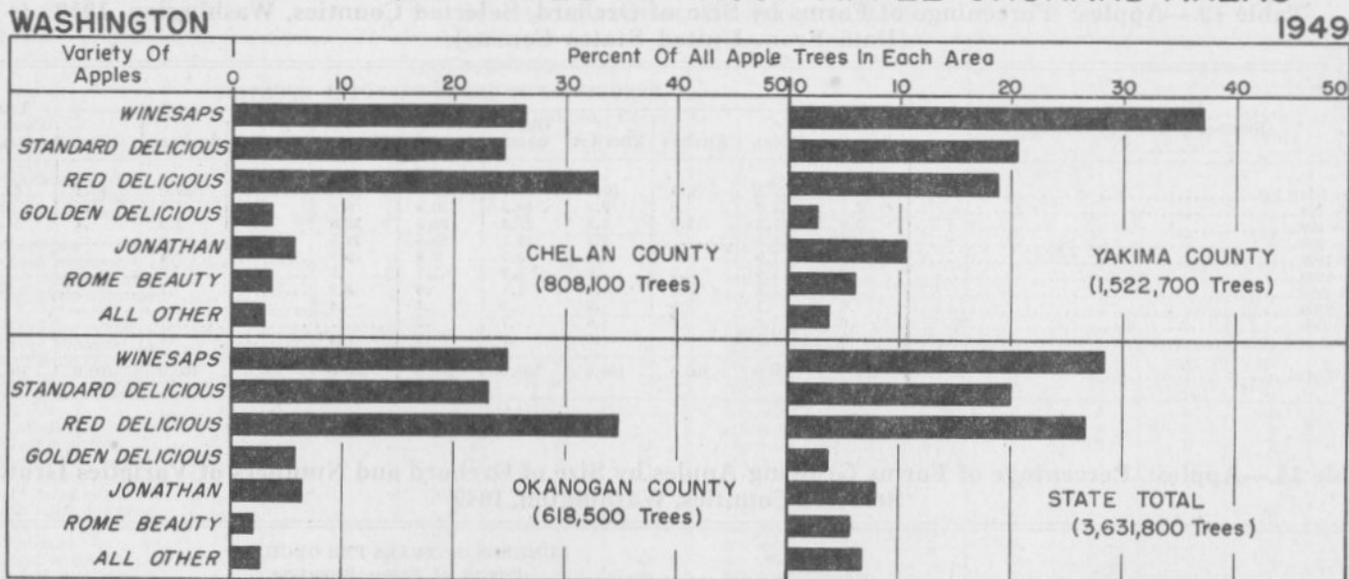


Figure 11. Delicious and Winesap apple trees predominate in the State of Washington. Considered as a group Delicious apple trees are most numerous, especially in the leading commercial areas. However, if the three Delicious types—Red, Standard, and Golden—are separated, Winesaps are more important numerically. Winesap apple trees account for 28 percent of all the apple trees in the state, Red Delicious for 27 percent, and Standard Delicious for about 20 percent. Winesaps, Standard Delicious, and Red Delicious predominated in the order named in Yakima County. Red Delicious, Winesaps, and Standard Delicious were the most important in that order in Chelan and Okanogan Counties.

AGE OF APPLE TREES BY VARIETIES

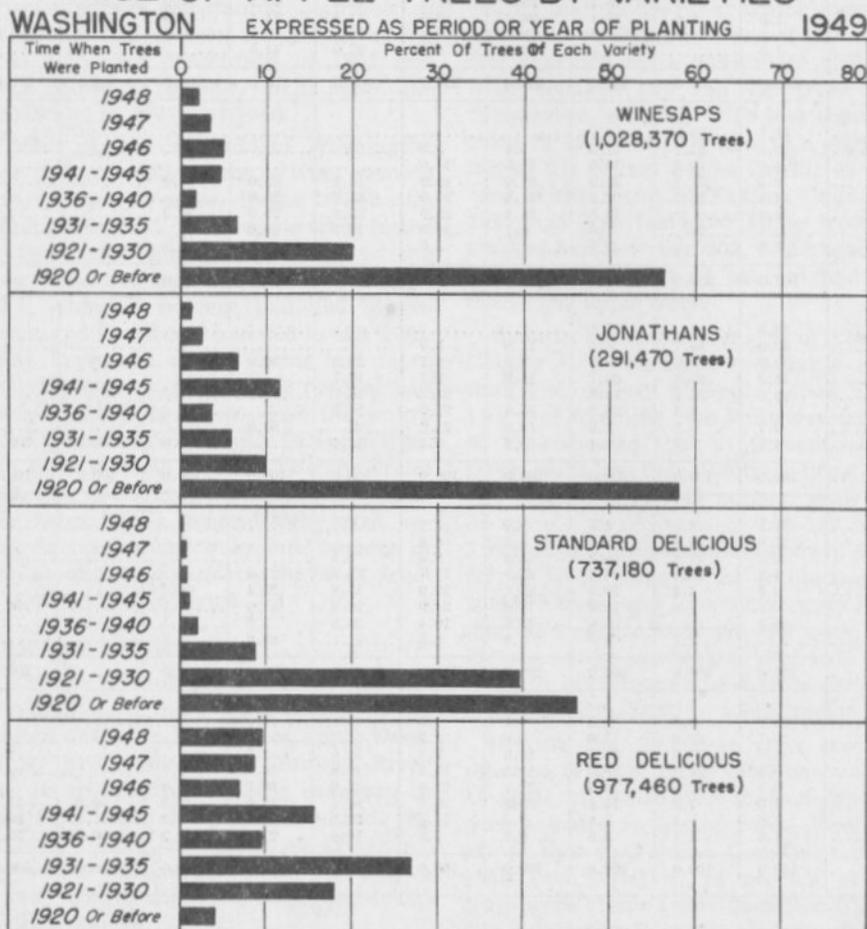


Figure 12. Winesaps were the oldest of the apple trees in Washington in 1949. Jonathans also were rather old. Standard Delicious trees averaged somewhat older than the Red Delicious. Between 50 and 60 percent of the Winesaps and Jonathans were planted in 1920 or before. Of the Standard Delicious, only 45-50 percent were planted in 1920 or before; and only about 4 percent of the Red Delicious were planted then.

ington were over 18 years of age in 1949. More than 37 percent of the 3,631,800 trees at the time of the survey had been planted prior to 1920 and were at least 28 years of age. An additional 22 percent had been planted between 1921 and 1930. Despite the depression of the 1930's there were apparently fairly heavy plantings of apple trees in that period. For the years 1931-35 the average planting was over 97,000 trees per year. In the succeeding 5 years, however, the average was only 35,000 trees per year.

As demand and prices improved after World War II began, there was an increase in the plantings of apple trees. For the years 1941-45 plantings averaged about 60,000 trees per year and for the three successive years 1946, 1947, and 1948 ranged between 160,000 and 180,000 trees per year. Apple trees less than four years of age accounted for almost 14 percent of all the trees in the state in 1949.

Winesaps Are Older

Winesaps predominated among the older apple trees and at the time of the 1949 survey, Winesaps accounted for 43 percent of all the trees planted prior to 1920. Standard Delicious were second with 25 percent and Jonathans third with 12 percent. There was a shift to Standard Delicious in the 1920's and 36 percent of the apple trees in that period were that type of Delicious. Winesaps were second and Red Delicious were third among the varieties planted between 1920 and 1930. Red Delicious took over first place in the 1931-35 period, and from then until 1945 usually ac-

Table 15.—Apples: Percentage of Trees in Orchards by Number of Varieties Grown, Selected Counties, Washington, 1949

| | Percent of Trees | | | | | | Percent of Trees | | | | |
|----------------------|------------------|----------------|-----------------|---------------|-------------------|----------------------|------------------|----------------|-----------------|---------------|-------------------|
| | Chelan County | Douglas County | Okanogan County | Yakima County | Four County Total | | Chelan County | Douglas County | Okanogan County | Yakima County | Four County Total |
| 2 Varieties | | | | | | 7 Varieties | | | | | |
| Most Common | 81 | 73 | 78 | 74 | 76 | Most common | 47 | 46 | 44 | 44 | 46 |
| 2nd most common..... | 19 | 27 | 22 | 26 | 24 | 2nd most common..... | 25 | 30 | 30 | 23 | 25 |
| 3 Varieties | | | | | | 3rd most common..... | 14 | 13 | 14 | 16 | 15 |
| Most common | 66 | 59 | 73 | 59 | 64 | 4th most common..... | 7 | 6 | 7 | 9 | 7 |
| 2nd most common..... | 25 | 30 | 18 | 30 | 26 | 5th most common..... | 4 | 2 | 4 | 5 | 4 |
| 3rd most common..... | 9 | 11 | 9 | 11 | 10 | 6th most common..... | 2 | 2 | 1 | 2 | 2 |
| 4 Varieties | | | | | | 7th most common..... | 1 | 1 | ..... | 1 | 1 |
| Most common | 56 | 46 | 61 | 52 | 54 | 8 Varieties | | | | | |
| 2nd most common..... | 26 | 30 | 26 | 29 | 28 | Most common | 44 | 54 | 40 | 43 | 43 |
| 3rd most common..... | 13 | 18 | 9 | 13 | 13 | 2nd most common..... | 22 | 18 | 25 | 25 | 23 |
| 4th most common..... | 5 | 6 | 4 | 6 | 5 | 3rd most common..... | 14 | 10 | 17 | 16 | 15 |
| 5 Varieties | | | | | | 4th most common..... | 10 | 6 | 11 | 8 | 10 |
| Most common | 51 | 52 | 48 | 49 | 49 | 5th most common..... | 5 | 5 | 4 | 4 | 4 |
| 2nd most common..... | 27 | 23 | 28 | 26 | 27 | 6th most common..... | 3 | 4 | 2 | 2 | 3 |
| 3rd most common..... | 14 | 14 | 15 | 14 | 14 | 7th most common..... | 1 | 2 | 1 | 1 | 1 |
| 4th most common..... | 6 | 3 | 7 | 8 | 7 | 8th most common..... | 1 | 1 | ..... | 1 | 1 |
| 5th most common..... | 2 | 3 | 2 | 3 | 3 | 9 Varieties | | | | | |
| 6 Varieties | | | | | | most common | 38 | ..... | ..... | 30 | 35 |
| Most common | 45 | 41 | 49 | 47 | 46 | 2nd most common..... | 23 | ..... | ..... | 26 | 24 |
| 2nd most common..... | 27 | 26 | 28 | 26 | 26 | 3rd most common..... | 15 | ..... | ..... | 14 | 15 |
| 3rd most common..... | 14 | 17 | 14 | 14 | 14 | 4th most common..... | 10 | ..... | ..... | 9 | 10 |
| 4th most common..... | 8 | 9 | 6 | 8 | 8 | 5th most common..... | 6 | ..... | ..... | 7 | 5 |
| 5th most common..... | 4 | 5 | 2 | 4 | 4 | 6th most common..... | 4 | ..... | ..... | 3 | 4 |
| 6th most common..... | 2 | 2 | 1 | 1 | 2 | 7th most common..... | 3 | ..... | ..... | 3 | 3 |
| | | | | | | 8th most common..... | 1 | ..... | ..... | 3 | 2 |
| | | | | | | 9th most common..... | ..... | ..... | ..... | 2 | 2 |

counted for over one-half of the apple trees planted. Substantial plantings of Winesaps and Golden Delicious cut the Red Delicious percentage in 1945 and 1946 below 50 percent, but it again exceeded 50 in 1947 and 1948.

Most of the orchards in Washington are rather small. This is true even in the commercial areas. In the 10 counties having the most of the apple trees in the state in 1950 almost two-thirds of the farms had less than 100 trees. (See table 13.) About 6 percent had 100 to 199 trees, and 15 percent had 200 to 499 trees. Only 6 percent of the farms had more than 1,000 trees, and only .3 percent had more than 5,000 trees. For the entire state the average was only 95 apple trees per farm in 1950. For the 12 commercial counties the average was only 442 trees per farm. As a general rule most orchards raise more than one variety of apples and the majority have at least one other type of fruit.

YAKIMA COUNTY

Yakima County, located in central Washington, is the leading county in the United States in number of apple trees. Water provided by the Yakima River and its tributaries, draining eastward to the Columbia, irrigates thousands of acres of fertile land. It is an extremely diversified agricultural area, and apples is only one of the many crops produced in the county.

Orchards tend to be larger in Yakima County than in any other county in the state. In part, this is because there is

more gentle slopeland available for orchards than in the other major commercial areas. Yakima was one of two counties in which there were more orchards with between 200 and 499 trees than there were orchards with less than 100 trees in 1950. (See Table 13.) According to the United States Census 28 percent of the farms in Yakima County in 1950 had less than 100 apple trees, 38 percent had less than 200, 67 percent had less than 500, and 87 percent had less than 1,000 apple trees.

Even in the small orchards of Yakima County it is customary to grow more than one variety of apple. (See Table 14.) For example, the fruit tree survey of 1949 showed that 51 percent of the farms with less than 100 trees grew only one type of apple; 49 percent grew two or more. In orchards of 100-199 trees, 3 varieties were commonly grown, 4 varieties were common in orchards with 200-499 trees, and 5 varieties were common in orchards with 500-999 trees. Six varieties were common in orchards with 1,000 to 1,999 trees, and 7 were usual in orchards with 2,000 to 2,999 trees.

Despite the fact that it is common practice to grow more than one variety of apple, it is also true that one variety predominates in an orchard. Table 15 shows that in Yakima County orchards with two varieties, 74 percent of the trees were of one type. In orchards with 3 to 8 varieties, the most common variety was about twice as important as the second, the second was twice as important as the third, and so on.

Yakima County Leads in Tree Numbers

Yakima County in 1949 had more Delicious apple trees, more Winesap, Jonathan and Rome Beauty apple trees than any other single county in Washington. The fruit tree survey showed about 567,000 Winesap trees of all ages, about 315,500 Standard Delicious; 287,500 Red Delicious; 160,000 Jonathan; 93,800 Rome Beauty; and about 40,000 Golden Delicious trees. Percentagewise, about 37 percent of the trees in the county were Winesaps, 21 were Standard Delicious, 19 were Red Delicious, 10 percent were Jonathans, 6 percent were Rome Beauty, and 3 percent were Golden Delicious. Other varieties accounted for 4 percent of all the apple trees in Yakima County.

Thirty-nine percent of the apple trees alive in Yakima County in 1949 were planted in 1920 or before. About 20 percent were planted in the years 1921-30. Plantings were quite light during the 1930's especially in the latter part of the period. Only 4 percent of 1949 apple trees were planted in the years 1936-40. Plantings increased as World War II began, but only 9 percent of those in orchards in 1949 were put in during the 5 years 1941-45, whereas 14 percent were planted in the 3 years 1946, 1947, and 1948.

Jonathan, Rome Beauty, and Winesaps are the oldest varieties of apples in Yakima County. Sixty-three percent of the Jonathan apple trees, 59 percent of the Rome Beauty, and 56 percent of the Winesap trees in the county in 1949

were planted before 1920. Delicious varieties were planted in Yakima County somewhat later than in other commercial areas. Heaviest plantings of Standard Delicious standing in 1949 came in the 1920's while the Red Delicious plantings were greatest in the 1931-35 and 1941-45 periods. Golden Delicious came even later with about one-fifth of those in orchards in 1949 being planted in 1947.

CHELAN COUNTY

Chelan County ranked second to Yakima in the state in number of apple trees of all ages in 1949 and was fourth in the nation in 1945. The county is extremely rugged, and there is but little usable land compared with total area. Orchards are located chiefly along the Wenatchee and Columbia Rivers. Narrow belts of orchard land sweep around the edges of the foothills and mountains and penetrate into the small tributary valleys where irrigation is possible.

Despite the lack of sizeable blocks of land suitable for orchards in Chelan County, orchards are larger than the average for most counties. (See Table 13.) Only Yakima has a higher percentage of large orchards. About 20 percent of the orchards enumerated by the 1950 Census in Chelan County had less than 100 trees, while 32 had less than 200 trees. About 70 percent of all the fruit farms in Chelan County had less than 500 apple trees, and 88 percent had less than 1,000 trees.

The majority of the orchards in 1949 produced more than one variety of apple. Two-thirds of the growers with orchards of less than 100 trees had more than one variety of apple tree. In orchards with 100 to 199 trees and in those with 200 to 499 trees, four varieties were common. (See Table 14.) Five varieties were characteristic in orchards with 500-999 trees, and six were common in orchards with between 1,000 and 3,000 trees. As was true elsewhere in the commercial counties, however, one variety always predominated over the others in the orchard. (See Table 15.) The second variety usually was about one-half as important as the first.

Delicious Apple Trees Outnumber Winesaps

Delicious apple trees outnumber the Winesaps about two to one in Chelan County in 1949. The survey showed about 266,490 Red Delicious trees, 197,780 Standard Delicious, and 28,650 Golden Delicious trees for a total of 492,920 trees. In that same year there were 212,960 Winesap trees of all ages, 47,790 Jonathan trees, 29,790 Rome Beauty trees, and 24,640 miscellaneous

varieties. The Red Delicious accounted for 33 percent of the total trees in 1949, Winesaps for 26 percent; Standard Delicious for 24 percent; Jonathans for 6 percent; Rome Beauty, 4 percent; Golden Delicious, 4 percent; and other varieties for 3 percent.

Apple trees planted in Chelan County prior to 1920 comprised 42 percent of all the trees in 1949, according to the survey. This was the highest percentage of trees over 28 years of age for any of the major counties. However, the percentage planted in the 1920's was somewhat less than in Yakima so that both counties had about the same percentage of trees 18 years old or older. Plantings in 1946, 1947, and 1948 were proportionately smaller in Chelan, only 10 percent of the 1949 total being planted in those three years.

Slightly more than two-thirds of the Winesap (67 percent) and Rome Beauty (69 percent) apple trees in the county were planted before 1920. Sixty-two percent of the Jonathans, 58 percent of the Standard Delicious, and 52 percent of the other varieties also were planted before 1920. Red Delicious trees were planted later, with the peak coming in the years 1931-35. Golden Delicious standing in 1949 came in even later, with the heaviest plantings in the 1941-45 period.

OKANOGAN COUNTY

Third most important in Washington's apple industry is Okanogan County. Located in the central belt of counties, Okanogan's northern border forms part of the boundary between the United States and Canada. The county is very mountainous throughout, and the orchard areas are in long, narrow belts along the Columbia River and its tributaries.

Orchards tend to be somewhat smaller because of the rough terrain and the limited areas that can be successfully irrigated. (See Table 13.) Almost 40 percent of the orchards shown in the 1950 Census had less than 100 apple trees, 50 percent had less than 200 trees, 77 percent had less than 500 trees, and 91 percent had less than 1,000 trees. There was, however, the same tendency to grow more than one variety of apple. (See Table 14.) Even orchards with less than 100 trees usually had more than one variety of apple. Generally 4 or 5 varieties of apple trees were common in Okanogan County orchards, regardless of the size of the orchard.

There was a greater tendency for one variety to predominate than in other counties. (See Table 15.) Okanogan County farms with two varieties averaged 78 percent of the trees of one va-

riety. Where 3 varieties predominated 73 percent were of one kind, and where 4 varieties predominated 61 percent were one variety. Where more than 4 varieties of apples occurred in orchards, 40 to 50 percent of the trees averaged of one type.

Okanogan Has Highest Percentage of Delicious Apple Trees

Okanogan County has the highest percentage of Delicious apple trees of any county in Washington. In total number, of course, it has less trees than Yakima and Chelan. Of the 618,500 apple trees in the county in 1949, about 23 percent were Standard Delicious, 35 percent were Red Delicious, and 6 percent were Golden Delicious—a total of 64 percent Delicious types. Winesaps comprised only 25 percent of the total, and Jonathans accounted for 7 percent. Every other commercial county had a higher percentage of Winesaps in 1949, and Yakima and Douglas had a higher percentage of Jonathans. Only 2 percent of the trees in Okanogan County were Rome Beauty.

Apple trees in Okanogan County tend to be younger than in the other major commercial counties. Only 33 percent of the apple trees recorded by the 1949 fruit tree survey were planted before 1920 and only 21 percent were planted before 1930. About 20 percent were planted in the 1930's and about 26 percent were planted between 1941 and 1949.

Winesaps and Jonathans are the oldest trees in Okanogan County. Fifty-nine percent of the Winesaps were planted before 1920, and 55 percent of the Jonathans were planted before that date. Standard Delicious also were planted early—50 percent of all those alive in 1949 having been put in before 1920. Plantings of Red Delicious standing in 1949 came in after 1920 and especially after 1930, while most of the Golden Delicious were put in orchards after 1940. Red Delicious and Golden Delicious varieties were very popular after 1945.

DOUGLAS COUNTY

Douglas is the fourth ranking county in the state of Washington in number of apple trees. The orchard land is concentrated principally in the western portion of the county along the Columbia River. Old river terraces, some of them high above the present stream, are the sites of the orchards.

About one-third of the growers in Douglas County had less than 100 apple trees in 1950, according to the United States Census. Another one-third had 200 to 499 trees. (See Table 13.) In all, orchards with less than 500 trees com-

prised 74 percent of the county total, and those with less than 1,000 trees constituted 86 percent of the total. Forty-three percent of the orchards with less than 100 trees grew only one variety of apple. (See Table 14.) In orchards with 100 to 199 trees, one-third raised one variety. Five varieties were common in orchards with 200 to 499 trees. In the larger orchards 6 or more varieties were common.

Of the 228,200 apple trees in Douglas County reported by the 1949 fruit tree survey 33 percent were Red Delicious, 30 percent were Winesaps, 16 percent were Standard Delicious, and 11 percent were Jonathans. Golden Delicious accounted for 5 percent, Rome Beauty for 2 percent, and miscellaneous varieties for 3 percent. The Delicious varieties numbered 121,760 trees, or 53 percent of all the trees in the county.

Heavy Plantings Made Before 1930

The heaviest plantings of apple trees in Douglas County were made before 1930—34 percent of the trees alive in 1949 were put in prior to 1920 and 63 percent before 1930. Very little planting was done in the county during the depression of the 1930's. Only about 12 percent of the trees were planted between 1931 and 1940. Recovery was slow in the early part of World War II. However, in the years 1946, 1947, and 1948 plantings amount to almost 19 percent of the 1949 total. (See Table 12.)

Early plantings were largely Winesaps. Of the Winesaps growing in 1949 almost 50 percent were planted before 1920. Sixty-two percent of the Standard Delicious were put in orchards prior to 1920, but they constituted only 30 percent of the plantings of that period. (See Table 10.) Red Delicious were planted in Douglas County mainly in the 1920's, while the Golden Delicious were planted after 1945. Sizeable plantings of Jonathans were reported in all periods, especially after 1940. Of the 1949 total, 37 percent were planted before 1920, 9 percent were put in between 1921 and 1930, 20 percent between 1931 and 1940, and 35 percent were put in between 1941 and 1948.

APRICOT TREES

Washington ranks second among the 48 states of the United States in the number of apricot trees of all ages. California is first by a wide margin, the United States Census showing over 3,500,000 apricot trees in that state in 1950. Washington was second with 486,000 trees and Utah was third with 171,135. No other state had over 100,000 apricot trees when the census was taken.

VARIETY OF APRICOT TREES IN MAJOR APRICOT ORCHARD AREAS

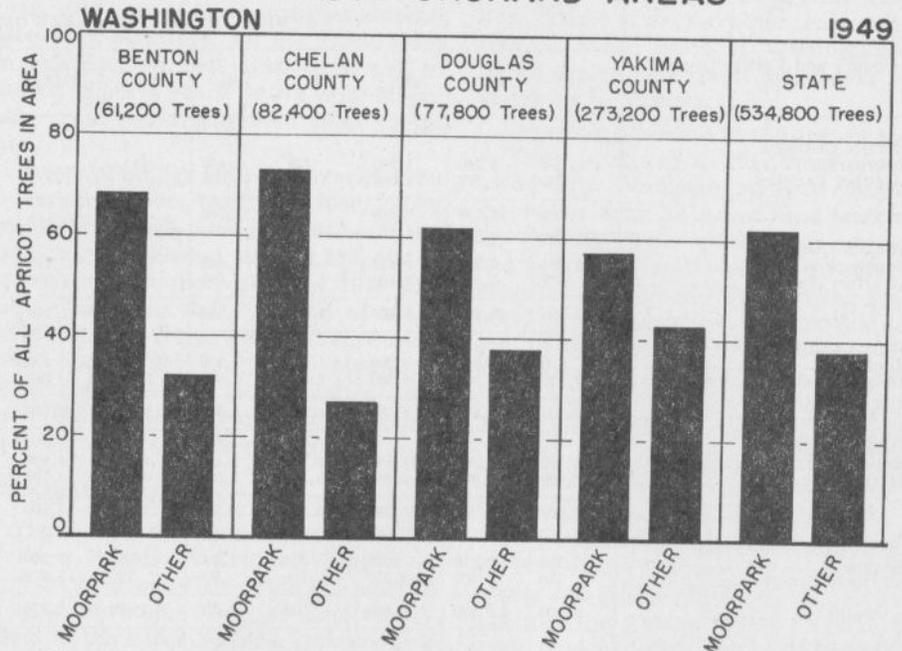


Figure 13. Moorpark is the predominant variety of apricot trees grown in Washington. In 1949 slightly over 60 percent of all the apricot trees in the state were Moorpark. Varieties other than Moorpark were most popular in Yakima County, which has the largest number of apricot trees of any commercial county. Moorparks are especially popular in Chelan and Benton Counties. In Chelan County over 73 percent of all the apricot trees were Moorpark.

Colorado with 84,917 trees was fourth and Oregon with 57,436 was fifth. Oklahoma, Illinois, Nebraska, Idaho, and Iowa followed in the order named. The number of apricot trees in Washington at the time of the fruit tree survey in 1949 was 534,800 trees.

The principal variety of apricots grown in the State of Washington is the Moorpark. When the fruit tree survey was taken in 1949 about 331,500 or 62 per-

cent of all the apricot trees in the state were of this one variety. All other varieties of apricots such as Tilton, Riland and Perfections, totaled only 203,320 trees.

As is true of apples, four counties contained the bulk of the trees in the state. Yakima County led all others with 273,200 trees—over one-half of the state total in 1949. Chelan was in second place with 82,400 trees, Douglas was third

AGE OF APRICOT TREES BY VARIETIES

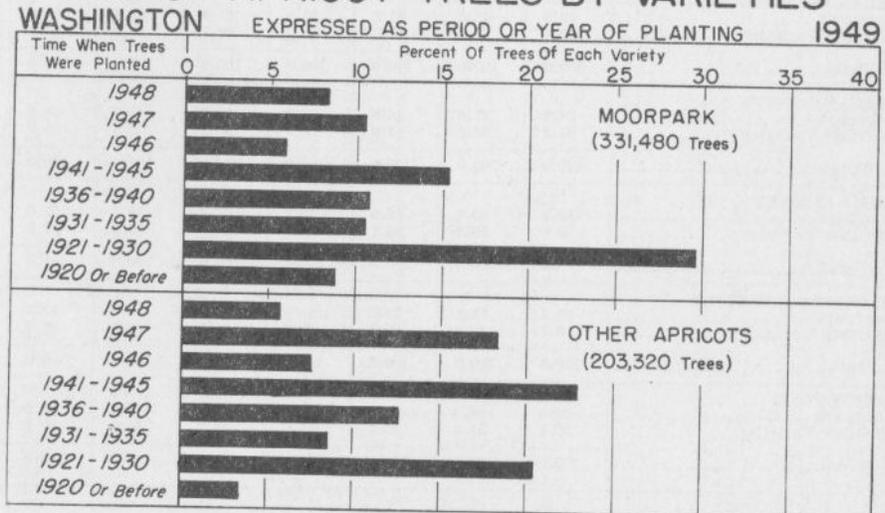


Figure 14. The Moorpark apricot trees in Washington in 1949 were older than the other varieties. Almost 30 percent of those standing in 1949 were planted in the 10 years between 1921 and 1930, and about 9 percent in 1920 or before. Slightly over 20 percent of the other varieties were planted in the 1921-30 period, and about 4 percent in 1920 or before. Fairly heavy plantings of other apricots occurred in 1947.

Almost 70,000 apricot trees in Yakima County in 1949 were planted in the three years just preceding the survey. A total of 16,580 had been planted in 1946 of which 11,590 were Moorpark. Apricot trees planted in 1947, and still remaining in 1949 totaled 29,920 with 14,860 Moorpark trees and 15,060 other varieties. The 1948 figure was 23,470 trees in Yakima County, 60 percent of which were Moorpark.

CHELAN COUNTY

Chelan County ranks second to Yakima County in number of apricot trees but in 1949 had less than one-third as many trees as the leading county. The apricot orchards in Chelan County, like the apple orchards, are found in the Wenatchee and Columbia River valleys. Seldom do orchards have only apricots: they generally are grown with other fruits. The number of trees per orchard is usually small.

At the time the 1949 fruit tree survey was made there were about 82,400 apricot trees in Chelan County. Moorpark trees totaled 60,280 trees which was 73 percent of all the apricot trees in the county. This was the highest percentage of Moorpark apricot trees of any county in the state although the number was much less than in Yakima County. There were 22,120 apricot trees other than Moorpark in the county in 1949, approximately 27 percent of the county total.

Trees planted before 1920 comprised about 11 percent of all the apricot trees in Chelan County in 1920. Again it should be remembered that there were many trees planted before 1920 that were removed before 1949. The percentages refer only to trees standing in 1949 at the time of the fruit tree survey. Twenty-six percent were planted during the period of great expansion 1921-30. Practically all of the early plantings in Chelan County remaining in 1949 were of the Moorpark variety. A total of 9,300 trees planted prior to 1920 were standing in 1949 of which 9,190 were Moorpark. Plantings in the 10 years 1921-30, numbered 21,370 trees with 19,030 Moorpark trees and 2,320 Perfection, Riland, Tilton and other varieties.

The period from 1930 to 1940 in Chelan was in sharp contrast with Yakima County. Fifteen percent of the 1949 trees in Chelan County were put into orchards from 1930 to 1935 while only 5 percent were put in between 1935 and 1940. In Yakima County 10 percent went in in the first 5-year period and 11 percent in the second. Moorpark apricot trees planted in Chelan in the 1930's and still in orchards in 1949 numbered 13,880 out of a total of 16,530 trees.

About 11,000 trees of the 1949 total were planted during the expansion which began with World War II (1941-45) and they were about equally divided between the Moorpark and all other varieties. This continued in 1946 with almost identical numbers reported by the fruit tree survey for Moorpark and other types. In 1947 it was different. About 13,700 trees were planted which remained two years later when the survey was made—7,400 were varieties other than Moorpark and 6,300 were Moorpark. In 1948 plantings in Chelan County totaled about 3,330 trees of which 2,660 were Moorpark and only 670 were other varieties.

DOUGLAS COUNTY

In 1949 Douglas County had almost as many apricot trees as Chelan. Many of the trees were located on the high terrain along the Columbia River in the neighborhood of Wenatchee. For the county the 1950 Census showed an average of only 164 trees per farm reporting apricots.

The percentage of Moorpark apricot trees in Douglas County in 1949 was lower than in Chelan and Benton but was higher than in Yakima. Conversely, the percentage of Perfection, Tilton and Riland apricot trees was higher in Douglas County than in Benton and Chelan but was lower than in Yakima. The survey showed 77,800 apricot trees in Douglas County in 1949. Moorpark trees numbered 48,320 accounting for 62 percent of the total. Douglas County had more apricot trees of other varieties than did Chelan and the total of 29,480 trees was 38 percent of all the apricot trees in the county.

Plantings of apricots in Douglas County apparently tended to lag behind Chelan in some years and spurred ahead in other periods. For example, in 1949 there were 4,840 apricot trees in Douglas County that had been planted before 1920, whereas there were 9,300 trees planted prior to 1920 that were still surviving in Chelan. Yet Douglas County showed 29,440 apricot trees put in between 1920 and 1930 while Chelan had 21,370 trees planted in that same period. The 1949 survey showed 12,490 apricot trees for the years 1931-35 in Chelan, and 7,350 in Douglas, but for 1936-40 Douglas had 7,630 and Chelan only 4,040 trees.

There were more trees aged 4-9 years (planted in 1941-45) in Douglas County than there were in Chelan. However, in each of the three years 1946, 1947, and 1948, there were fewer apricot trees planted in Douglas than in Chelan. Totals in Douglas were 4,780 trees, 8,810 trees, and 2,500 trees in each year, respectively. Even in Benton County there

were more apricot trees planted during that post-war period than were put into the Douglas County orchards.

Early plantings in Douglas County were largely Moorpark. Of the 4,840 trees bearing apricots in 1949 that were planted before 1920 only 580 were other than Moorpark. Of those planted in the 10-year period 1921-30, about 25,120 were Moorpark trees and 4,320 were other varieties. They continued to be the dominant variety in the early 1930's although the margin narrowed considerably. A total of 4,670 Moorpark trees standing in 1949 were planted in the 1931-35 period while 2,680 trees of other varieties were put in orchards.

Between 1935 and 1949 more of the varieties other than Moorpark were planted in Douglas County with the greatest margin in the years 1941-45 and in 1947 and 1948. Because of the heavy plantings after 1935 about 75 percent of the other varieties in 1949 were less than 14 years old and 23 percent were less than 2 years of age. In the case of Moorpark only 29 percent were less than 14 years old while 9 percent were less than 2 years of age.

BENTON COUNTY

The orchard area of Benton County is an eastward extension of the Yakima Valley. The county itself lacks the mountains of the other central area counties. Although of low relief there are rough areas, particularly along the Yakima and Columbia Rivers. Only a small portion of the county can be irrigated, so the land suitable for fruit is rather small.

Benton County, like Chelan and Douglas, has many more Moorpark apricots than any other variety. Slightly more than two-thirds (68 percent) of the apricot trees in Benton County were Moorpark in 1949.

The greater portion of the apricot trees in Benton County in 1949 were rather young despite the fact that apricots were recorded in the area by census reports dating back to 1890. Actually more of the apricot trees in the county at the time of the survey were planted after 1940 than were planted prior to that date. In 1947 alone, 28 percent of all the apricot trees in existence in 1949 were planted and the following year another 13 percent were put in orchards. Trees aged less than 10 years constituted almost 60 percent of all the trees in the county.

Less than 100 apricot trees in the county in 1949 had been planted before 1920. In view of the census record this indicates sizable removals of the old trees over the years. There were shifts to other fruits and to other crops.

CHERRY TREES

Washington is among the leading states of the nation in number of cherry trees. Michigan and Wisconsin, two states which lead in sour cherry production, ranked first and second in tree numbers in 1950 according to the United States Census. Michigan had over 3,400,000 cherry trees and Wisconsin over 1,000,000. Oregon was a close third with 999,000. California was in fourth place and Washington in fifth in 1950. Other important states in cherry tree numbers were Pennsylvania, New York, Colorado and Utah.

The fruit tree survey in 1949 found 644,100 cherry trees in Washington compared with 629,976 on January 1, 1950 as reported by the census, indicating some small increase in plantings over removals in 1949 and early 1950.

The majority of the cherry trees in the state of Washington produce sweet cherries. At the time of the fruit tree survey in 1949 about three-quarters of the 644,100 cherry trees were sweet varieties and the remaining one-quarter were sour varieties. Bing cherries led all types and accounted for about 44 percent of the total cherry trees. Lamberts

comprised 20 percent; Royal Annes, 8 percent; and other sweet varieties trailed with 4 percent of the cherry trees.

Sweet cherry production is concentrated in central Washington. There are two major areas—the Yakima-Benton County area and the Chelan-Douglas region. Fifty-four percent of the sweet cherry trees in the state were in the Yakima-Benton area in 1949 and 25 percent in the Chelan-Douglas region. Eastern Washington counties had the greater part of the remaining sweet cherry trees. Sour cherry production, on the other hand, is largely in western

Table 19.—Cherries: Number of Trees by Variety and by Year of Planting, Selected Counties, Washington, 1949

| County and Variety Grown | NUMBER OF TREES BY YEAR OF PLANTING | | | | | | | | | | | | Trees of All Ages |
|-----------------------------|-------------------------------------|--------|--------|--------|-------|--------|--------|--------|-----------|-----------|-----------|----------------|-------------------|
| | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940-1936 | 1935-1931 | 1930-1921 | 1920 or Before | |
| BENTON COUNTY | | | | | | | | | | | | | |
| Bing | 350 | 2,670 | 1,140 | 2,850 | 1,420 | ..... | 160 | 620 | 6,020 | 16,800 | 15,170 | 5,000 | 52,290 |
| Lambert | 20 | 2,360 | 160 | ..... | 130 | ..... | ..... | ..... | 170 | 140 | 450 | 1,450 | 4,910 |
| Royal Anne ..... | ..... | 20 | ..... | ..... | 130 | ..... | ..... | ..... | 800 | 490 | 830 | 150 | 2,510 |
| Other Sweet | 660 | ..... | 140 | 50 | 110 | ..... | ..... | ..... | 620 | 290 | 710 | 40 | 2,620 |
| Total Sweet Varieties | 1,030 | 5,050 | 1,440 | 2,900 | 1,790 | ..... | 160 | 620 | 7,700 | 17,720 | 17,160 | 6,760 | 62,330 |
| Total Sour Varieties ..... | ..... | ..... | 20 | ..... | 10 | ..... | ..... | 20 | 10 | 10 | 50 | 1,350 | 1,470 |
| All Cherries | 1,030 | 5,050 | 1,460 | 2,900 | 1,800 | ..... | 160 | 640 | 7,710 | 17,730 | 17,210 | 8,110 | 63,800 |
| CHELAN COUNTY | | | | | | | | | | | | | |
| Bing | 2,140 | 1,170 | 1,720 | 550 | 1,210 | 1,360 | 1,590 | 2,780 | 6,290 | 7,010 | 6,950 | 5,430 | 38,200 |
| Lambert | 5,820 | 3,670 | 2,010 | 2,910 | 1,360 | 2,350 | 2,080 | 2,740 | 6,280 | 5,340 | 4,930 | 3,010 | 42,600 |
| Royal Anne | 330 | 680 | 300 | 1,030 | 190 | 150 | 60 | 90 | 1,140 | 220 | 750 | 1,350 | 6,290 |
| Other Sweet | 690 | 310 | 90 | 60 | 140 | 190 | 120 | 190 | 640 | 340 | 460 | 430 | 3,650 |
| Total Sweet Varieties | 8,980 | 5,830 | 4,120 | 4,550 | 2,900 | 4,040 | 2,850 | 5,800 | 14,350 | 12,910 | 13,090 | 10,220 | 90,640 |
| Total Sour Varieties | 180 | 20 | 20 | 10 | 20 | 40 | 130 | 20 | 190 | 130 | 40 | 60 | 860 |
| All Cherries | 9,160 | 5,850 | 4,140 | 4,560 | 2,920 | 4,080 | 3,980 | 5,820 | 14,540 | 13,040 | 13,130 | 10,280 | 91,500 |
| DOUGLAS COUNTY | | | | | | | | | | | | | |
| Bing | 4,060 | 580 | 960 | 310 | 50 | 260 | 180 | 700 | 2,950 | 2,310 | 2,440 | 1,480 | 16,280 |
| Lambert | 3,850 | 230 | 380 | 360 | 70 | 70 | 100 | 300 | 980 | 1,180 | 1,660 | 990 | 10,170 |
| Royal Anne | 520 | 400 | 120 | 80 | 20 | 50 | 10 | 10 | 110 | 120 | 310 | 380 | 2,130 |
| Other Sweet | 1,040 | 40 | 80 | 20 | 10 | 10 | ..... | 70 | 180 | 140 | 290 | 90 | 1,970 |
| Total Sweet Varieties | 9,470 | 1,250 | 1,540 | 770 | 150 | 390 | 290 | 1,080 | 4,220 | 3,750 | 4,700 | 2,940 | 30,550 |
| Total Sour Varieties ..... | ..... | ..... | 190 | ..... | ..... | ..... | ..... | ..... | 70 | 40 | 40 | 10 | 350 |
| All Cherries | 9,470 | 1,250 | 1,730 | 770 | 150 | 390 | 290 | 1,080 | 4,290 | 3,790 | 4,740 | 2,950 | 30,900 |
| YAKIMA COUNTY | | | | | | | | | | | | | |
| Bing | 5,450 | 2,630 | 3,110 | 1,710 | 2,430 | 4,070 | 5,600 | 2,110 | 9,960 | 16,860 | 45,030 | 26,110 | 125,160 |
| Lambert | 2,960 | 1,640 | 1,920 | 1,270 | 1,380 | 2,070 | 5,180 | 910 | 2,630 | 2,570 | 11,010 | 3,970 | 36,910 |
| Royal Anne | 480 | 390 | 1,110 | 780 | 100 | 880 | 570 | 400 | 1,010 | 4,120 | 9,100 | 7,300 | 26,230 |
| Other Sweet | 730 | 470 | 520 | 170 | 140 | 700 | 930 | 90 | 1,100 | 1,160 | 3,690 | 1,560 | 11,200 |
| Total Sweet Varieties | 9,620 | 5,130 | 6,660 | 3,930 | 4,050 | 7,720 | 12,370 | 3,510 | 14,100 | 24,650 | 68,830 | 38,930 | 199,560 |
| Total Sour Varieties | 10 | 20 | 20 | 10 | 10 | 10 | 40 | 70 | 240 | 330 | 1,690 | 250 | 2,700 |
| All Cherries | 9,630 | 5,150 | 6,680 | 3,940 | 4,060 | 7,730 | 12,410 | 3,580 | 14,340 | 24,980 | 70,520 | 39,180 | 202,260 |
| KING COUNTY | | | | | | | | | | | | | |
| Total Sweet Varieties | 20 | 10 | 10 | ..... | 20 | ..... | 10 | ..... | 240 | 630 | 330 | 110 | 1,380 |
| Total Sour Varieties | 2,020 | 1,870 | 160 | ..... | 20 | ..... | 5,410 | 1,710 | 11,230 | 37,600 | 26,300 | 3,900 | 90,220 |
| OTHER COUNTIES | | | | | | | | | | | | | |
| Total Sweet Varieties | 1,970 | 3,220 | 3,280 | 900 | 310 | 2,390 | 9,470 | 1,290 | 11,030 | 14,150 | 38,650 | 13,200 | 99,920 |
| Total Sour Varieties | 8,220 | 3,470 | 3,300 | 890 | 360 | 740 | 190 | 190 | 6,260 | 12,030 | 13,640 | 14,890 | 64,180 |
| STATE TOTAL | | | | | | | | | | | | | |
| Bing | 12,330 | 8,070 | 8,310 | 5,930 | 5,140 | 5,820 | 13,380 | 6,740 | 30,350 | 50,090 | 93,860 | 44,940 | 284,960 |
| Lambert | 14,120 | 9,470 | 5,760 | 4,660 | 3,160 | 6,680 | 10,920 | 4,500 | 13,960 | 14,430 | 24,640 | 14,000 | 126,300 |
| Royal Anne | 1,340 | 1,890 | 1,820 | 2,130 | 490 | 1,120 | 740 | 660 | 4,320 | 6,490 | 17,580 | 10,590 | 49,180 |
| Other Sweet | 3,300 | 1,060 | 1,160 | 330 | 430 | 910 | 1,110 | 370 | 3,010 | 2,800 | 6,650 | 2,720 | 23,800 |
| Total Sweet Varieties | 31,090 | 20,490 | 17,050 | 13,050 | 9,220 | 14,540 | 26,150 | 12,270 | 51,640 | 73,510 | 142,760 | 72,250 | 484,320 |
| Total Sour Varieties | 10,430 | 5,380 | 3,710 | 910 | 420 | 790 | 5,770 | 2,010 | 18,000 | 50,140 | 41,760 | 20,460 | 159,780 |
| All Cherries | 41,520 | 25,870 | 20,760 | 13,960 | 9,640 | 15,330 | 31,920 | 14,280 | 69,640 | 123,650 | 184,520 | 92,710 | 644,100 |

Table 20.—Cherries: Percentage of Trees by Variety and by Year of Planting, Selected Counties, Washington, 1949

| County and Variety Grown | PERCENTAGE OF TREES BY YEAR OF PLANTING | | | | | | | | | | Trees of All Ages | | |
|----------------------------|---|-------|-------|-------|-------|-------|-------|-------|-----------|-----------|-------------------|-----------|----------------|
| | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940-1936 | 1935-1931 | | 1930-1921 | 1920 or Before |
| BENTON COUNTY | | | | | | | | | | | | | |
| Bing | 34.0 | 52.9 | 78.1 | 98.3 | 78.9 | ..... | 100.0 | 96.9 | 78.1 | 94.7 | 88.2 | 62.8 | 81.96 |
| Lambert | 1.9 | 46.7 | 10.9 | ..... | 7.2 | ..... | ..... | ..... | 2.3 | .8 | 2.6 | 18.3 | 7.70 |
| Royal Anne ..... | ..... | .4 | ..... | ..... | 7.2 | ..... | ..... | ..... | 11.5 | 2.8 | 4.8 | 1.8 | 3.93 |
| Other Sweet | 64.1 | ..... | 9.6 | 1.7 | 6.1 | ..... | ..... | ..... | 8.0 | 1.6 | 4.1 | .5 | 4.11 |
| Total Sweet Varieties..... | 100.0 | 100.0 | 98.6 | 100.0 | 99.4 | ..... | 100.0 | 96.9 | 99.9 | 99.9 | 99.7 | 83.4 | 97.70 |
| Total Sour Varieties..... | ..... | ..... | 1.4 | ..... | .6 | ..... | ..... | 3.1 | .1 | .1 | .3 | 16.6 | 2.30 |
| All Cherries | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | ..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| CHELAN COUNTY | | | | | | | | | | | | | |
| Bing | 23.4 | 20.0 | 41.5 | 12.1 | 41.4 | 33.3 | 39.9 | 47.8 | 43.3 | 53.8 | 52.9 | 52.8 | 41.75 |
| Lambert | 63.5 | 62.8 | 48.6 | 63.8 | 46.6 | 57.6 | 52.3 | 47.1 | 43.2 | 40.9 | 37.6 | 29.3 | 46.45 |
| Royal Anne | 3.6 | 11.6 | 7.2 | 22.6 | 6.5 | 3.7 | 1.5 | 1.5 | 7.8 | 1.7 | 5.7 | 13.1 | 6.87 |
| Other Sweet | 7.5 | 5.3 | 2.2 | 1.3 | 4.8 | 4.4 | 3.0 | 3.3 | 4.4 | 2.6 | 3.5 | 4.2 | 3.99 |
| Total Sweet Varieties..... | 98.0 | 99.7 | 99.5 | 99.8 | 99.3 | 99.0 | 96.7 | 99.7 | 98.7 | 99.0 | 99.7 | 99.4 | 99.06 |
| Total Sour Varieties..... | 2.0 | .3 | .5 | .2 | .7 | 1.0 | 3.3 | .3 | 1.3 | 1.0 | .3 | .6 | .94 |
| All Cherries | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| DOUGLAS COUNTY | | | | | | | | | | | | | |
| Bing | 42.9 | 46.4 | 55.5 | 40.3 | 33.3 | 66.7 | 62.1 | 64.8 | 68.8 | 60.9 | 51.5 | 50.2 | 52.69 |
| Lambert | 40.6 | 18.4 | 22.0 | 46.7 | 46.7 | 17.9 | 34.5 | 27.8 | 23.8 | 31.1 | 35.0 | 33.6 | 32.91 |
| Royal Anne | 5.5 | 32.0 | 6.9 | 10.4 | 13.3 | 12.8 | 3.4 | .9 | 2.6 | 3.2 | 6.6 | 12.9 | 6.89 |
| Other Sweet | 11.0 | 3.2 | 4.6 | 2.6 | 6.7 | 2.6 | ..... | 6.5 | 4.2 | 3.7 | 6.1 | 3.0 | 6.38 |
| Total Sweet Varieties..... | 100.0 | 100.0 | 89.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 98.4 | 98.9 | 99.2 | 99.7 | 98.87 |
| Total Sour Varieties..... | ..... | ..... | 11.0 | ..... | ..... | ..... | ..... | ..... | 1.6 | 1.1 | .8 | .3 | 1.13 |
| All Cherries | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| YAKIMA COUNTY | | | | | | | | | | | | | |
| Bing | 56.6 | 51.1 | 46.6 | 43.4 | 60.0 | 52.7 | 45.9 | 58.9 | 69.4 | 67.5 | 63.9 | 66.7 | 61.90 |
| Lambert | 30.7 | 31.8 | 28.7 | 32.2 | 34.0 | 26.8 | 41.7 | 25.4 | 14.2 | 10.3 | 15.6 | 10.1 | 18.25 |
| Royal Anne | 5.0 | 7.6 | 16.6 | 19.8 | 2.4 | 11.4 | 4.6 | 11.2 | 7.0 | 16.5 | 12.9 | 18.6 | 12.97 |
| Other Sweet | 7.6 | 9.1 | 7.8 | 4.3 | 3.4 | 9.0 | 7.5 | 2.5 | 7.7 | 4.4 | 5.2 | 4.0 | 5.54 |
| Total Sweet Varieties..... | 99.9 | 99.6 | 99.7 | 99.7 | 99.8 | 99.9 | 99.7 | 98.0 | 98.3 | 98.7 | 97.6 | 99.4 | 98.66 |
| Total Sour Varieties..... | .1 | .4 | .3 | .3 | .2 | .1 | .3 | 2.0 | 1.7 | 1.3 | 2.4 | .6 | 1.34 |
| All Cherries | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| KING COUNTY | | | | | | | | | | | | | |
| Total Sweet Varieties..... | 1.0 | .6 | 5.8 | ..... | 50.0 | ..... | .2 | ..... | 2.1 | 1.7 | 1.2 | 2.8 | 1.51 |
| Total Sour Varieties..... | 99.0 | 99.4 | 94.2 | ..... | 50.0 | ..... | 99.8 | 100.0 | 97.9 | 98.3 | 98.8 | 97.2 | 98.49 |
| OTHER COUNTIES | | | | | | | | | | | | | |
| Total Sweet Varieties..... | 19.3 | 48.1 | 49.8 | 50.3 | 46.3 | 76.4 | 98.0 | 86.9 | 63.8 | 54.0 | 73.9 | 47.2 | 60.89 |
| Total Sour Varieties..... | 80.7 | 51.9 | 50.2 | 49.7 | 53.7 | 23.6 | 2.0 | 13.1 | 36.2 | 46.0 | 26.1 | 52.8 | 39.11 |
| STATE TOTAL | | | | | | | | | | | | | |
| Bing | 29.7 | 31.2 | 40.0 | 42.5 | 53.3 | 37.9 | 41.9 | 47.2 | 43.6 | 40.4 | 50.9 | 48.5 | 44.24 |
| Lambert | 34.0 | 36.6 | 27.7 | 33.4 | 32.8 | 43.6 | 34.2 | 31.5 | 20.1 | 11.6 | 13.4 | 15.1 | 19.61 |
| Royal Anne | 3.2 | 7.3 | 8.8 | 15.2 | 5.1 | 7.4 | 2.3 | 4.6 | 6.2 | 5.2 | 9.5 | 11.4 | 7.63 |
| Other Sweet | 8.0 | 4.1 | 5.6 | 2.4 | 4.4 | 5.9 | 3.5 | 2.6 | 4.3 | 2.3 | 3.6 | 2.9 | 3.71 |
| Total Sweet Varieties..... | 74.9 | 79.2 | 82.1 | 93.5 | 95.6 | 94.8 | 81.9 | 85.9 | 74.2 | 49.5 | 77.4 | 77.9 | 75.19 |
| Total Sour Varieties..... | 25.1 | 20.8 | 17.9 | 6.5 | 4.4 | 5.2 | 18.1 | 14.1 | 25.8 | 40.5 | 22.6 | 22.1 | 24.81 |
| All Cherries | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |

Washington. King County alone had about 63 percent of all the sour cherry trees in the state in 1949, with Pierce having about one-third as many as King.

Sweet Cherry Trees Are Young

Slightly less than one-half (44 percent) of the sweet cherry trees in the state at the time the fruit tree survey was taken in 1949 were planted before 1931. Hence, 55 percent were less than 18 years old in 1949. About 15 percent were planted prior to 1920 and nearly 30 percent were put in orchards in the 10 years 1921-30.

Plantings continued heavy in the early

1930's; and 15 percent of the 1949 total were put in in the years 1931-35, and 11 percent in 1936-40. The succeeding 5 years, with the stimulus of World War II, also were years in which many cherry trees were put in orchards. Almost 16 percent of the trees existing in 1949 were planted in the years 1941-45 and 14 percent in the 3 years 1946, 1947, and 1948.

Bing cherries predominated among the sweet cherries planted in Washington. Forty-eight percent of the Bing cherry trees alive in 1949 were planted before 1931. Only 31 percent of the Lamberts in 1949 orchards were put in prior to 1931; for Royal Annes it was 57

percent; and for other sweets, 39 percent.

About 12 percent of the sour cherry trees in Washington orchards in 1949 were about 3 years old. Spokane in eastern Washington and a few western Washington counties showed some expansion after World War II. King County declined as growers turned to industrial employment. Six percent were planted between 1941 and 1945. Many of the trees planted in the 1930's still were in orchards, comprising 43 percent of all the sour cherry trees in the state in 1949. About 26 percent were planted in the 1920's and only 13 percent prior to 1920.

VARIETY OF CHERRY TREES GROWN IN MAJOR CHERRY ORCHARD AREAS

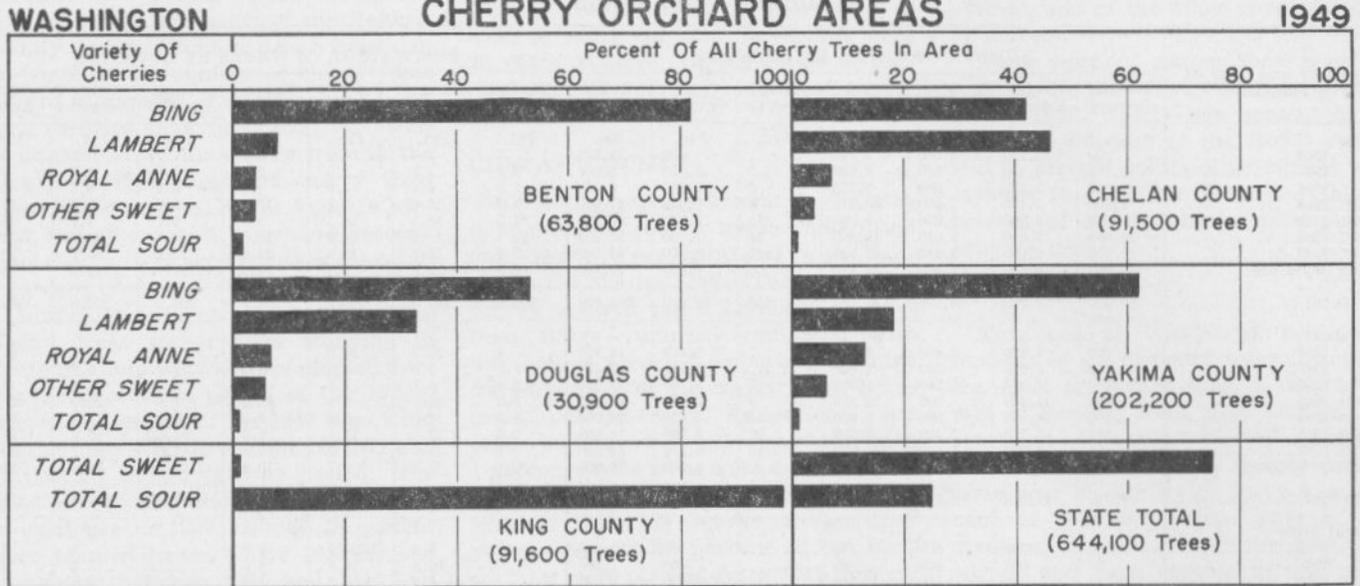


Figure 15. About three-quarters of all the cherry trees in Washington in 1949 were sweet cherry trees. Very few sour cherry trees were reported in the large commercial areas east of the Cascade Mountains. Bing cherries are the most popular of the sweet varieties in Benton, Yakima, and Douglas Counties over one-half of all the cherry trees were Bing, with the percentage almost 82 in Benton County. Lambert cherries, which were the second-most-important sweet variety in the state in 1949, were more numerous in Chelan County than were the Bings. In King County, which is in western Washington, over 98 percent of the cherry trees were sour cherries.

YAKIMA COUNTY

Yakima County has more cherry trees than any other county in Washington. Cherries are found in the portion of the Yakima River Valley north of Union Gap as well as in the lower valley. It is almost exclusively a sweet cherry area. Of the 202,200 cherry trees in the county

in 1949 almost 99 percent were sweet varieties, and sour cherries accounted for only 1 percent of the total.

About 62 percent of the cherry trees in Yakima County at the time of the fruit tree survey were Bing variety. Only in Benton County was there a higher percentage of Bing cherry trees.

Eighteen percent of the trees in Yakima County were Lamberts. Although the Royal Anne trees numbered only 26,230 in 1940 and comprised only 13 percent of the total cherry trees, Yakima was by far the most important county in this type of cherry.

AGE OF CHERRY TREES BY VARIETIES

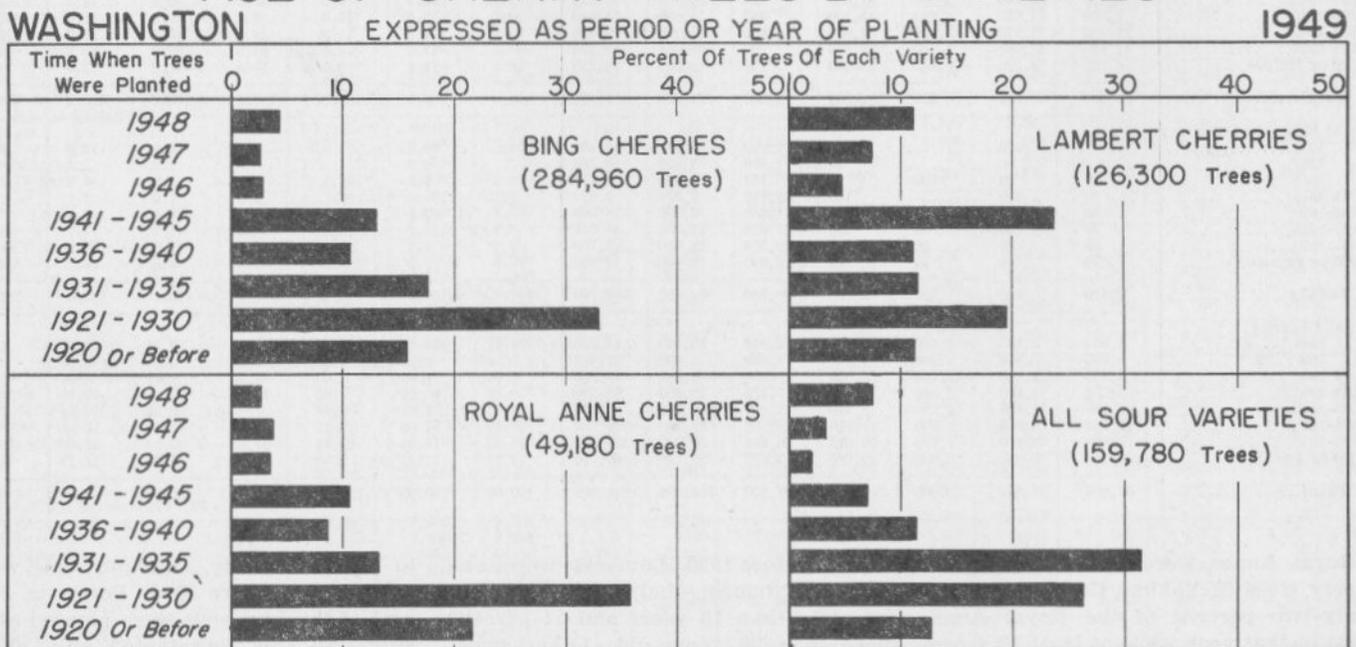


Figure 16. The Royal Anne and Bing varieties are the oldest of the cherry trees in Washington. Of the trees standing in 1949 over one-half of the Royal Anne cherry trees and almost one-half of the Bing cherry trees in the state had been planted by 1931. Less than 35 percent of all the sour cherries and only about 30 percent of the Bing cherry trees in Washington orchards were planted in 1931. Fairly heavy plantings of sweet cherries were made in the years 1941-45, encouraged by more favorable prices in World War II. Although there were over twice as many Bing cherry trees as there were Lamberts, the percentage of Bing trees planted after 1945 was much less than the percentage of Lamberts planted.

Table 21.—Cherries: Number and Percentage of Trees by Variety and Year of Planting, Selected Counties, Washington, 1949

| Variety and Year of Planting | NUMBER OF TREES BY COUNTIES | | | | | | | PERCENTAGE OF TREES BY COUNTIES | | | | | | |
|------------------------------|-----------------------------|---------------|----------------|----------------|---------------|----------------|----------------|---------------------------------|---------------|----------------|---------------|---------------|----------------|---------------|
| | Benton County | Chelan County | Douglas County | Yakima County | King County | Other Counties | State Total | Benton County | Chelan County | Douglas County | Yakima County | King County | Other Counties | State Total |
| Bing | No. | No. | No. | No. | No. | No. | No. | Pct. | Pct. | Pct. | Pct. | Pct. | Pct. | Pct. |
| 1948..... | 350 | 2,140 | 4,060 | 5,430 | ..... | 330 | 12,330 | .7 | 5.6 | 24.9 | 4.3 | ..... | .6 | 4.3 |
| 1947..... | 2,670 | 1,170 | 580 | 2,630 | 5 | 1,010 | 8,070 | 5.1 | 3.1 | 3.6 | 2.1 | ..... | 3.2 | 1.9 |
| 1946..... | 1,140 | 1,720 | 960 | 3,110 | 5 | 1,370 | 8,310 | 2.2 | 4.5 | 5.9 | 2.5 | ..... | 3.2 | 2.6 |
| 1941-1945..... | 5,050 | 7,490 | 1,500 | 16,010 | 5 | 6,950 | 37,010 | 9.7 | 19.6 | 9.2 | 12.7 | ..... | 3.2 | 13.2 |
| 1936-1940..... | 6,020 | 6,290 | 2,950 | 9,960 | 15 | 5,120 | 30,350 | 11.5 | 16.5 | 18.1 | 8.0 | ..... | 9.7 | 10.7 |
| 1931-1935..... | 16,800 | 7,010 | 2,310 | 16,860 | 10 | 7,100 | 60,090 | 32.1 | 18.3 | 14.2 | 13.5 | ..... | 6.5 | 13.4 |
| 1921-1930..... | 15,170 | 6,950 | 2,440 | 45,030 | 115 | 24,160 | 93,800 | 29.0 | 18.2 | 15.0 | 36.0 | ..... | 74.2 | 45.7 |
| 1920 or Before..... | 5,000 | 5,430 | 1,480 | 26,110 | ..... | 6,830 | 44,940 | 9.7 | 14.2 | 9.1 | 20.9 | ..... | ..... | 12.9 |
| Total..... | 52,290 | 38,200 | 16,280 | 125,160 | 155 | 52,870 | 284,900 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Lambert | | | | | | | | | | | | | | |
| 1948..... | 20 | 5,820 | 3,850 | 2,960 | ..... | 1,470 | 14,120 | .4 | 13.7 | 37.9 | 8.0 | ..... | 4.6 | 11.2 |
| 1947..... | 2,360 | 3,670 | 230 | 1,640 | ..... | 1,570 | 9,470 | 48.1 | 8.6 | 2.3 | 4.5 | ..... | 5.0 | 7.5 |
| 1946..... | 160 | 2,010 | 380 | 1,920 | 5 | 1,290 | 5,760 | 3.3 | 4.7 | 3.7 | 5.2 | ..... | 8.3 | 4.1 |
| 1941-1945..... | 130 | 11,440 | 900 | 10,810 | 5 | 6,640 | 29,920 | 2.6 | 28.9 | 8.9 | 29.2 | ..... | 8.3 | 20.9 |
| 1936-1940..... | 170 | 6,280 | 980 | 2,030 | 15 | 4,480 | 13,960 | 3.5 | 14.8 | 9.6 | 5.5 | ..... | 25.0 | 14.1 |
| 1931-1935..... | 140 | 5,240 | 1,180 | 2,570 | 20 | 5,180 | 14,430 | 2.8 | 12.6 | 11.6 | 7.0 | ..... | 33.4 | 16.3 |
| 1921-1930..... | 450 | 4,960 | 1,660 | 11,010 | 15 | 6,570 | 24,640 | 9.2 | 11.6 | 16.3 | 29.8 | ..... | 25.0 | 20.7 |
| 1920 or Before..... | 1,480 | 3,010 | 990 | 3,970 | ..... | 4,550 | 14,000 | 30.1 | 7.1 | 9.7 | 10.8 | ..... | ..... | 14.3 |
| Total..... | 4,910 | 42,560 | 10,170 | 36,910 | 60 | 31,750 | 126,300 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Royal Anne | | | | | | | | | | | | | | |
| 1948..... | ..... | 230 | 520 | 480 | ..... | 10 | 1,340 | ..... | 5.2 | 24.4 | 1.8 | ..... | .1 | 2.7 |
| 1947..... | ..... | 680 | 400 | 300 | ..... | 400 | 1,890 | ..... | 19.8 | 18.8 | 1.5 | ..... | 3.4 | 3.8 |
| 1946..... | 20 | 300 | 120 | 1,110 | ..... | 290 | 1,820 | ..... | 4.8 | 5.6 | 4.2 | ..... | 2.5 | 3.7 |
| 1941-1945..... | 130 | 1,520 | 170 | 2,730 | ..... | 600 | 5,150 | ..... | 24.2 | 8.0 | 10.5 | ..... | 5.0 | 10.5 |
| 1936-1940..... | 890 | 1,140 | 110 | 1,010 | 20 | 1,150 | 4,330 | 35.4 | 18.1 | 5.2 | 3.8 | ..... | 11.1 | 9.7 |
| 1931-1935..... | 490 | 220 | 120 | 4,120 | 55 | 1,490 | 6,490 | 19.5 | 3.5 | 5.6 | 15.7 | ..... | 30.5 | 12.6 |
| 1921-1930..... | 830 | 750 | 310 | 9,100 | 90 | 6,500 | 17,580 | 33.1 | 11.5 | 14.6 | 34.7 | ..... | 50.9 | 54.9 |
| 1920 or Before..... | 150 | 1,350 | 380 | 7,290 | 15 | 1,400 | 10,590 | 6.0 | 21.5 | 17.8 | 27.8 | ..... | 8.3 | 11.8 |
| Total..... | 2,510 | 6,290 | 2,130 | 26,230 | 180 | 11,840 | 49,180 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Other Sweet Varieties | | | | | | | | | | | | | | |
| 1948..... | 660 | 690 | 1,040 | 730 | 20 | 160 | 3,300 | 25.2 | 18.9 | 52.8 | 6.5 | 2.0 | 4.6 | 13.8 |
| 1947..... | ..... | 310 | 40 | 470 | 5 | 240 | 1,060 | ..... | 8.5 | 2.0 | 4.2 | ..... | .5 | 6.9 |
| 1946..... | 140 | 90 | 80 | 520 | ..... | 330 | 1,160 | 5.3 | 2.5 | 4.1 | 4.6 | ..... | 9.5 | 4.9 |
| 1941-1945..... | 160 | 690 | 110 | 2,030 | 20 | 140 | 3,150 | 0.1 | 18.8 | 5.6 | 18.2 | ..... | 2.0 | 4.1 |
| 1936-1940..... | 620 | 640 | 180 | 1,100 | 190 | 280 | 3,010 | 23.7 | 17.6 | 9.1 | 9.8 | ..... | 19.3 | 8.1 |
| 1931-1935..... | 290 | 340 | 140 | 1,100 | 545 | 380 | 2,800 | 11.1 | 9.3 | 7.1 | 9.8 | ..... | 55.3 | 11.0 |
| 1921-1930..... | 710 | 460 | 290 | 3,600 | 110 | 1,420 | 6,680 | 27.1 | 12.6 | 14.7 | 33.0 | ..... | 11.2 | 41.9 |
| 1920 or Before..... | 40 | 430 | 90 | 1,560 | 95 | 510 | 2,730 | 1.5 | 11.8 | 4.6 | 13.9 | ..... | 9.7 | 14.8 |
| Total..... | 2,620 | 3,650 | 1,970 | 11,200 | 985 | 3,460 | 23,880 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Total Sweet Varieties | | | | | | | | | | | | | | |
| 1948..... | 1,030 | 5,980 | 9,470 | 9,620 | 20 | 1,970 | 31,090 | 1.7 | 9.9 | 31.0 | 4.8 | 1.5 | 2.0 | 6.4 |
| 1947..... | 5,050 | 5,830 | 1,250 | 5,130 | 10 | 3,220 | 20,490 | 8.1 | 6.4 | 4.1 | 2.6 | ..... | .8 | 3.2 |
| 1946..... | 1,440 | 4,120 | 1,540 | 6,600 | 10 | 3,280 | 17,050 | 2.3 | 4.6 | 5.0 | 3.3 | ..... | .8 | 3.3 |
| 1941-1945..... | 5,470 | 21,140 | 2,680 | 31,580 | 30 | 14,330 | 75,230 | 8.9 | 23.4 | 8.8 | 15.9 | ..... | 2.1 | 14.3 |
| 1936-1940..... | 7,700 | 14,350 | 4,220 | 14,100 | 240 | 11,050 | 51,640 | 12.3 | 15.8 | 13.8 | 7.1 | ..... | 17.4 | 11.0 |
| 1931-1935..... | 17,720 | 12,910 | 3,750 | 24,650 | 630 | 14,150 | 73,810 | 28.4 | 14.2 | 12.3 | 12.3 | ..... | 45.6 | 14.2 |
| 1921-1930..... | 17,160 | 13,090 | 4,700 | 68,830 | 330 | 38,650 | 142,700 | 27.5 | 14.4 | 15.4 | 34.5 | ..... | 23.9 | 29.5 |
| 1920 or Before..... | 6,760 | 10,220 | 2,940 | 38,920 | 110 | 13,290 | 72,250 | 10.8 | 11.3 | 9.6 | 19.5 | ..... | 7.9 | 13.3 |
| Total..... | 62,330 | 90,640 | 30,550 | 199,500 | 1,380 | 99,920 | 484,320 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Total Sour Varieties | | | | | | | | | | | | | | |
| 1948..... | ..... | 180 | ..... | 10 | 2,020 | 8,220 | 10,430 | ..... | 20.9 | ..... | .4 | 2.2 | 12.8 | 6.5 |
| 1947..... | ..... | 50 | ..... | 20 | 1,870 | 3,470 | 5,390 | ..... | 2.3 | ..... | .7 | 2.1 | 5.4 | 3.4 |
| 1946..... | 30 | 20 | 190 | 20 | 160 | 3,900 | 3,710 | ..... | 1.4 | ..... | .2 | ..... | 5.1 | 2.3 |
| 1941-1945..... | 30 | 220 | ..... | 140 | 7,140 | 2,370 | 9,900 | ..... | 25.6 | ..... | 5.3 | 7.9 | 3.7 | 6.2 |
| 1936-1940..... | 10 | 190 | 70 | 240 | 11,230 | 6,260 | 18,000 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1931-1935..... | 10 | 130 | 40 | 320 | 27,600 | 12,630 | 51,040 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1921-1930..... | 50 | 40 | 40 | 1,690 | 26,300 | 13,640 | 41,760 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1920 or Before..... | 1,350 | 60 | 10 | 250 | 3,900 | 14,890 | 20,460 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total..... | 1,470 | 860 | 350 | 2,700 | 99,220 | 64,180 | 159,780 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Total Cherries | | | | | | | | | | | | | | |
| 1948..... | 1,030 | 9,160 | 9,470 | 9,630 | 2,040 | 10,190 | 41,520 | 1.61 | 10.01 | 30.65 | 4.76 | 2.23 | 6.21 | 6.45 |
| 1947..... | 5,050 | 5,830 | 1,250 | 5,150 | 1,880 | 6,690 | 25,870 | 7.92 | 6.39 | 4.05 | 2.55 | 2.05 | 4.08 | 4.02 |
| 1946..... | 1,460 | 4,140 | 1,730 | 6,680 | 170 | 6,580 | 20,760 | 2.29 | 4.53 | 5.60 | 3.30 | .18 | 4.01 | 3.22 |
| 1941-1945..... | 5,500 | 21,300 | 2,680 | 31,730 | 7,170 | 16,760 | 85,130 | 8.62 | 23.34 | 8.66 | 15.69 | 7.83 | 10.18 | 13.22 |
| 1936-1940..... | 7,710 | 14,540 | 4,290 | 14,340 | 11,470 | 17,290 | 69,640 | 12.09 | 15.89 | 13.88 | 7.09 | 12.52 | 10.54 | 10.81 |
| 1931-1935..... | 17,730 | 13,040 | 3,790 | 24,980 | 83,230 | 26,180 | 123,950 | 27.79 | 14.25 | 12.27 | 12.35 | 41.74 | 15.95 | 19.24 |
| 1921-1930..... | 17,210 | 13,130 | 4,740 | 70,520 | 26,630 | 52,290 | 184,520 | 26.97 | 14.35 | 15.34 | 34.88 | 29.07 | 31.86 | 28.65 |
| 1920 or Before..... | 8,110 | 10,280 | 2,950 | 39,180 | 4,010 | 28,180 | 92,710 | 12.71 | 11.24 | 9.55 | 19.38 | 4.38 | 17.17 | 14.39 |
| Total..... | 63,800 | 91,500 | 30,900 | 292,200 | 91,600 | 164,100 | 644,100 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Royal Annes were the oldest of the cherry trees in Yakima County in 1949. Sixty-two percent of the Royal Anne trees in that year were at least 18 years of age, and 28 percent of them were 28 years or more. Bing cherries also were quite old. Fifty-seven percent were 18 years or more, and 21 percent were

planted before 1920. Lamberts were considerably younger—only 41 percent being older than 18 years and 11 percent more than 28 years old. Other sweet varieties also were young, 47 percent planted prior to 1930 and 14 percent before 1920.

Lamberts are comparative newcomers

to Yakima County, although some were put in even before 1920. Forty-six percent of the Lamberts were planted after 1940, but this represented only about 16,000 trees. About 22 percent of the Bings, 18 percent of the Royal Annes, and 33 percent of the other sweet cherry trees were planted after 1940.

BENTON COUNTY

The Benton County sweet cherry area is an eastward extension of the Yakima County region. Benton ranks fourth in the state in the number of cherry trees—third in number of sweet cherry trees. Bing cherries alone accounted for about 82 percent of all the cherry trees in the county in 1949. Lambert cherry trees comprised 8 percent; Royal Annes, 4 percent; and other sweet varieties 4 percent. Sour cherry trees accounted for the other 2 percent.

A very large proportion of the Bing cherry trees which were standing in Benton County in 1949 were planted during the depression period of the 1930's. Almost 44 percent of the 1949 total were planted then—32 percent in 1931-35 and 12 percent in the 1936-40 period. The same was true of the Royal Anne trees in existence in 1949. About 20 percent were planted in the years 1931-35 and 35 percent between 1936 and 1940. Of the Lambert trees only 6 percent were put in during the 1930's, but 35 percent of other sweet varieties went in then.

Many of the sweet cherry trees in 1950 were at least 18 years old. Of the Bing cherry trees in orchards in 1949, about

39 percent were 18 years old or older and 10 percent were 28 years or more. Of the standing Lamberts 39 percent were at least 18 years old, and 30 percent were 28 years or more. Of the Bings 39 percent were 18 years or older, and 6 percent were 28 or more.

CHELAN COUNTY

Although ranking second to Yakima in number of cherry trees, Chelan had only 91,500 trees compared with Yakima's 202,200 in 1949. The fruit tree survey showed more Lambert cherries than Bings—unusual compared with most other areas. Lamberts accounted for 46 percent of the cherry trees, Bings for 42 percent, Royal Annes for 7, and other sweets for 4 percent. Less than 1 percent of the trees were sour cherries.

Cherry trees in Chelan County at the time of the 1949 survey were rather young. Almost 43 percent of the Bing cherries were planted from 1941 through 1948. Fifty-four percent of the Lamberts, 45 percent of the Royal Annes, and 49 percent of the other sweet varieties also were planted in those years. About 35 percent of the Bing cherry trees in 1949 orchards were planted in the 1930's.

Of the Lamberts 27 percent were put in in that period, of the Royal Annes 22 percent, and of the other sweet varieties 27 percent.

There were, of course, some trees remaining in 1949 that had been planted before 1930. Thirty-two percent of the Bings, 33 percent of the Royal Annes, and 24 percent of the other sweets were at least 18 years old in 1949. Only 19 percent of the Lamberts were planted prior to 1930.

KING COUNTY

King leads all Washington counties in number of sour cherry trees. Probably the most important area is just to the east of Renton, Kent, and Auburn, and southeast of Seattle. Ninety-eight percent of the trees in the county in 1949 were sour cherry trees. Fifty-four percent of the 90,000 sour cherry trees standing at the time of the fruit tree survey had been planted in the 1930's. Plantings in the 1920's comprised 29 percent of the total, and those over 28 years old (planted by 1920) were only 4 percent of all the trees. Less than 4,000 trees standing in 1949 were planted in the 3 years 1946-48 inclusive.

Table 22.—Peaches: Number of Trees by Variety and by Year of Planting, Selected Counties, Washington, 1949

| County and Variety Grown | NUMBER OF TREES BY YEAR OF PLANTING | | | | | | | | | | | | Total Number of Trees of All Ages |
|---------------------------|-------------------------------------|---------|---------|--------|--------|--------|--------|--------|-----------|-----------|-----------|----------------|-----------------------------------|
| | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940-1936 | 1935-1931 | 1930-1921 | 1920 or Before | |
| BENTON COUNTY | | | | | | | | | | | | | |
| Hale..... | 840 | 8,430 | 560 | 5,120 | 1,510 | ..... | 10 | 2,000 | 4,470 | 4,300 | 920 | ..... | 28,000 |
| Elberta..... | 4,570 | 24,130 | 9,720 | 5,460 | 4,060 | 2,220 | 20 | 4,020 | 5,750 | 11,380 | 1,640 | 180 | 73,090 |
| Rochester..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 100 | 870 | 6,130 | ..... | 10 | 7,110 |
| All Other..... | 730 | 740 | 1,430 | 20 | 300 | 670 | ..... | 1,500 | 2,560 | 1,150 | 1,220 | 230 | 11,040 |
| Total..... | 6,140 | 33,300 | 11,710 | 10,600 | 5,810 | 2,890 | 30 | 7,710 | 14,050 | 22,860 | 3,780 | 420 | 119,300 |
| CHELAN COUNTY | | | | | | | | | | | | | |
| Hale..... | 3,050 | 4,500 | 2,860 | 890 | 990 | 3,710 | 1,300 | 1,720 | 1,660 | 1,720 | 1,350 | 50 | 23,800 |
| Elberta..... | 3,800 | 7,590 | 3,880 | 3,150 | 3,290 | 5,930 | 1,570 | 3,080 | 1,640 | 2,530 | 3,080 | 990 | 40,590 |
| Rochester..... | 50 | 30 | 20 | 10 | 110 | 60 | 30 | 30 | 330 | 60 | 50 | 20 | 800 |
| All Other..... | 880 | 4,920 | 520 | 840 | 490 | 780 | 270 | 320 | 830 | 530 | 90 | 140 | 10,610 |
| Total..... | 7,840 | 17,040 | 7,280 | 4,890 | 4,880 | 10,480 | 3,170 | 5,150 | 4,460 | 4,840 | 4,570 | 1,200 | 75,800 |
| DOUGLAS COUNTY | | | | | | | | | | | | | |
| Hale..... | 3,510 | 5,370 | 2,060 | 1,540 | 2,850 | 1,920 | 680 | 2,360 | 7,030 | 3,920 | 3,210 | 2,310 | 26,760 |
| Elberta..... | 3,730 | 4,110 | 3,960 | 2,230 | 3,740 | 1,880 | 1,130 | 2,050 | 5,050 | 2,170 | 4,890 | 2,690 | 37,630 |
| Rochester..... | ..... | ..... | ..... | 40 | ..... | 40 | 80 | 230 | 250 | 300 | 140 | ..... | 980 |
| All Other..... | 2,210 | 3,400 | 3,100 | 1,910 | 410 | 1,240 | 830 | 110 | 3,440 | 500 | 150 | 130 | 17,430 |
| Total..... | 9,450 | 12,880 | 9,120 | 5,720 | 7,000 | 5,080 | 2,720 | 4,750 | 15,770 | 6,790 | 8,390 | 5,130 | 92,800 |
| YAKIMA COUNTY | | | | | | | | | | | | | |
| Hale..... | 18,970 | 26,070 | 21,480 | 11,810 | 14,700 | 13,830 | 13,350 | 15,860 | 45,710 | 39,300 | 61,200 | 7,940 | 290,320 |
| Elberta..... | 45,910 | 59,630 | 28,630 | 26,710 | 25,720 | 32,840 | 26,660 | 20,280 | 46,710 | 33,300 | 120,300 | 61,120 | 527,300 |
| Rochester..... | 2,800 | 120 | 4,360 | 130 | 650 | 250 | 1,800 | 390 | 2,890 | 630 | 1,250 | 200 | 15,480 |
| All Other..... | 3,680 | 8,270 | 4,020 | 1,920 | 2,200 | 790 | 1,710 | 2,970 | 17,320 | 6,580 | 7,920 | 1,920 | 59,000 |
| Total..... | 71,360 | 94,090 | 58,490 | 40,570 | 43,250 | 47,710 | 43,520 | 39,500 | 112,630 | 70,890 | 189,810 | 71,180 | 892,000 |
| ALL OTHER COUNTIES | | | | | | | | | | | | | |
| Hale..... | 2,460 | 1,920 | 2,150 | 1,970 | 5,770 | 3,950 | 3,440 | 7,000 | 11,170 | 3,040 | 1,220 | 1,260 | 47,350 |
| Elberta..... | 8,790 | 1,400 | 3,290 | 5,170 | 680 | 1,940 | 4,440 | 2,610 | 7,230 | 900 | 6,970 | 3,350 | 45,780 |
| Rochester..... | 480 | 680 | 6,190 | 3,940 | 1,910 | 380 | 1,270 | 9,000 | 9,550 | 3,430 | 1,350 | 10 | 28,730 |
| All Other..... | 8,610 | 4,900 | 5,480 | 13,080 | 5,070 | 7,230 | 4,720 | 5,360 | 16,830 | 2,510 | 6,830 | 860 | 81,480 |
| Total..... | 20,340 | 8,900 | 17,110 | 24,160 | 13,430 | 15,500 | 13,870 | 24,570 | 44,780 | 9,880 | 16,370 | 5,490 | 214,400 |
| STATE TOTAL | | | | | | | | | | | | | |
| Hale..... | 28,830 | 46,290 | 29,110 | 21,330 | 25,820 | 25,410 | 18,780 | 28,940 | 70,040 | 52,180 | 67,900 | 11,560 | 426,190 |
| Elberta..... | 66,860 | 96,860 | 48,880 | 42,720 | 37,430 | 44,810 | 33,820 | 32,040 | 66,380 | 50,370 | 136,880 | 68,340 | 725,390 |
| Rochester..... | 3,320 | 830 | 10,570 | 4,120 | 2,650 | 730 | 3,180 | 10,350 | 13,890 | 10,440 | 2,830 | 240 | 63,160 |
| All Other..... | 16,110 | 22,230 | 15,150 | 17,770 | 8,470 | 10,710 | 7,530 | 10,350 | 41,880 | 11,270 | 15,310 | 3,280 | 179,500 |
| Total..... | 115,130 | 116,210 | 108,710 | 85,940 | 74,370 | 81,660 | 63,310 | 81,680 | 191,990 | 124,260 | 222,920 | 83,420 | 1,394,300 |

Table 23.—Peaches: Percentage of Trees by Variety and by Year of Planting, Selected Counties, Washington, 1949

| County and Variety Grown | PERCENTAGE OF TREES BY YEAR OF PLANTING | | | | | | | | | | | Trees of All Ages | |
|---------------------------|---|-------|-------|-------|-------|-------|-------|-------|-----------|-----------|-----------|-------------------|----------------|
| | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940-1936 | 1935-1931 | 1930-1921 | | 1920 or Before |
| BENTON COUNTY | | | | | | | | | | | | | |
| Hale..... | 13.7 | 25.3 | 4.8 | 48.3 | 26.0 | ..... | 33.3 | 26.0 | 31.8 | 18.4 | 24.3 | ..... | 23.52 |
| Elberta..... | 74.4 | 72.5 | 83.0 | 51.5 | 68.8 | 76.8 | 66.7 | 52.1 | 49.9 | 49.8 | 43.4 | 42.8 | 61.27 |
| Rochester..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1.3 | 6.2 | 26.8 | ..... | 2.4 | 5.96 |
| All Other..... | 11.9 | 2.2 | 12.2 | .2 | 5.2 | 23.2 | ..... | 20.6 | 21.1 | 5.0 | 32.3 | 54.8 | 9.25 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| CHELAN COUNTY | | | | | | | | | | | | | |
| Hale..... | 38.0 | 26.4 | 39.3 | 18.2 | 20.3 | 35.4 | 41.0 | 33.4 | 37.2 | 35.5 | 29.5 | 4.2 | 31.40 |
| Elberta..... | 49.2 | 44.5 | 53.3 | 64.4 | 67.4 | 56.6 | 49.5 | 50.8 | 36.8 | 52.3 | 67.4 | 82.5 | 53.55 |
| Rochester..... | .7 | .2 | .3 | .2 | 2.3 | .6 | 1.0 | .5 | 7.4 | 1.2 | 1.1 | 1.7 | 1.05 |
| All Other..... | 11.2 | 28.9 | 7.1 | 17.2 | 10.0 | 7.4 | 8.5 | 6.2 | 18.6 | 11.0 | 2.0 | 11.6 | 14.00 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| DOUGLAS COUNTY | | | | | | | | | | | | | |
| Hale..... | 37.1 | 41.7 | 22.6 | 26.9 | 49.7 | 37.8 | 25.0 | 49.7 | 44.6 | 57.7 | 38.2 | 45.0 | 39.61 |
| Elberta..... | 39.5 | 31.9 | 43.4 | 39.0 | 53.4 | 37.0 | 41.5 | 45.2 | 32.0 | 32.0 | 58.3 | 52.5 | 40.55 |
| Rochester..... | ..... | ..... | ..... | .7 | ..... | .8 | 3.0 | 4.8 | 1.6 | 2.9 | 1.7 | ..... | 1.06 |
| All Other..... | 23.4 | 26.4 | 34.0 | 33.4 | 5.9 | 24.4 | 30.5 | 2.3 | 21.8 | 7.4 | 1.8 | 2.5 | 15.78 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| YAKIMA COUNTY | | | | | | | | | | | | | |
| Hale..... | 26.6 | 27.7 | 36.7 | 29.1 | 34.0 | 29.0 | 30.7 | 40.2 | 40.6 | 49.2 | 32.2 | 11.1 | 32.54 |
| Elberta..... | 64.3 | 63.4 | 47.9 | 65.9 | 59.4 | 68.8 | 61.3 | 51.3 | 41.5 | 41.8 | 63.4 | 85.9 | 59.11 |
| Rochester..... | 3.9 | .1 | 7.5 | .3 | 1.5 | .5 | 4.1 | 1.0 | 2.5 | .8 | .7 | .3 | 1.74 |
| All Other..... | 5.2 | 8.8 | 7.9 | 4.7 | 5.1 | 1.7 | 3.9 | 7.5 | 15.4 | 8.2 | 3.7 | 2.7 | 6.61 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| ALL OTHER COUNTIES | | | | | | | | | | | | | |
| Hale..... | 12.1 | 21.6 | 12.6 | 8.2 | 43.0 | 38.4 | 24.8 | 28.5 | 25.0 | 30.8 | 7.5 | 22.9 | 22.09 |
| Elberta..... | 43.2 | 15.7 | 19.2 | 21.4 | 5.1 | 12.5 | 32.0 | 16.6 | 16.1 | 9.1 | 42.6 | 61.2 | 21.82 |
| Rochester..... | 2.4 | 7.6 | 36.2 | 16.3 | 14.2 | 2.5 | 9.2 | 39.1 | 21.3 | 34.7 | 8.2 | 2.2 | 18.09 |
| All Other..... | 42.3 | 55.1 | 32.0 | 54.1 | 37.7 | 46.6 | 34.0 | 21.8 | 37.6 | 25.4 | 41.7 | 15.7 | 38.00 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| STATE TOTAL | | | | | | | | | | | | | |
| Hale..... | 25.0 | 27.8 | 28.1 | 24.8 | 34.7 | 31.1 | 29.7 | 35.4 | 36.5 | 42.0 | 30.4 | 13.9 | 30.57 |
| Elberta..... | 58.1 | 58.3 | 47.1 | 49.7 | 59.3 | 54.9 | 53.4 | 39.2 | 34.6 | 40.5 | 61.4 | 81.9 | 52.02 |
| Rochester..... | 2.9 | .5 | 10.2 | 4.8 | 3.6 | .9 | 6.0 | 12.7 | 7.3 | 8.4 | 1.3 | .3 | 4.53 |
| All Other..... | 14.0 | 13.4 | 14.0 | 20.7 | 11.4 | 13.1 | 11.9 | 12.7 | 21.6 | 9.1 | 6.9 | 3.9 | 12.88 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |

PEACHES

Thirteen of the nation's 48 states had more peach trees than Washington, according to the 1950 Census of the United States. California led all others with 9,220,808 peach trees. The South Atlantic group was very important. Georgia ranked second in peach-tree numbers with 5,341,666, South Carolina was third with 4,808,678, North Carolina was eighth with 1,850,457, and Virginia was twelfth with 1,487,422 trees. Of the East North Central States, Michigan was fourth in number of peach trees in 1950 with 3,603,866, Illinois was tenth with 1,523,744, and Ohio, eleventh with 1,489,318. Arkansas, of the East South Central States, was fifth with 3,006,937 and Texas was sixth with 2,696,349 trees. Other leaders in peach tree numbers in 1950 were: Pennsylvania, seventh with 2,211,816 trees; Alabama, ninth with 1,606,901; and Missouri, thirteenth with 1,366,384 trees.

There were 1,394,300 peach trees standing in the State of Washington in 1949, according to the Washington Fruit Tree Survey indications. Most of the trees were located in central Washington, Yakima County alone having almost

two-thirds of the total. The 4 leading counties in number of peach trees were Yakima, Benton, Douglas, and Chelan, and these 4 counties had almost 85 percent of the state's peach trees in 1949.

The most outstanding feature of Washington's peach trees in 1949 was their youth. The proportion of young trees was higher and the proportion of old trees lower than for any other kind of fruit trees. More than one-half of the peach trees standing in 1949 were planted after 1940. Over 27 percent of the trees were less than 4 years old, having been planted in the three post-war years of 1946, 1947, and 1948. About 28 percent of the peach trees standing in 1949 were planted in the years 1941 to 1945, and were 4 to 8 years old when the survey was made. About 23 percent of the trees were from plantings made during the 1930's. Trees in the age group of 19 to 28 years (from plantings made during the 1920's) comprised about 16 percent of the 1949 tree numbers. Less than 6 percent of the peach trees standing in 1949 were over 28 years old, as most of the trees planted before 1920 had been removed before 1949.

Elbertas and Hales Predominate

Two varieties were dominant among the state's peach trees in 1949—Elbertas and Hales. The Elberta was the most important variety by a wide margin, not only in the state as a whole, but also in each of the principal commercial peach counties. The Hale variety likewise was second in popularity in each of the principal counties and in the entire state. These two varieties accounted for more than 82 percent of all the peach trees in the state. The remaining 18 percent of the trees consisted of Rochesters and other minor varieties.

There were 725,390 Elberta peach trees in Washington in 1949. This was more than 52 percent of the trees of all varieties. In comparison with the peach trees of other varieties, the Elbertas were slightly older on the average. Of the Elberta trees standing in 1949, about 56 percent were planted after 1940 which was about the same proportion of young trees as was true of the average for all varieties. About 16 percent of the Elbertas were planted in the 1930's, almost 19 percent were planted in the 1920's, and about 10 percent were planted in

VARIETIES OF PEACHES GROWN IN MAJOR PEACH ORCHARD AREAS WASHINGTON 1949

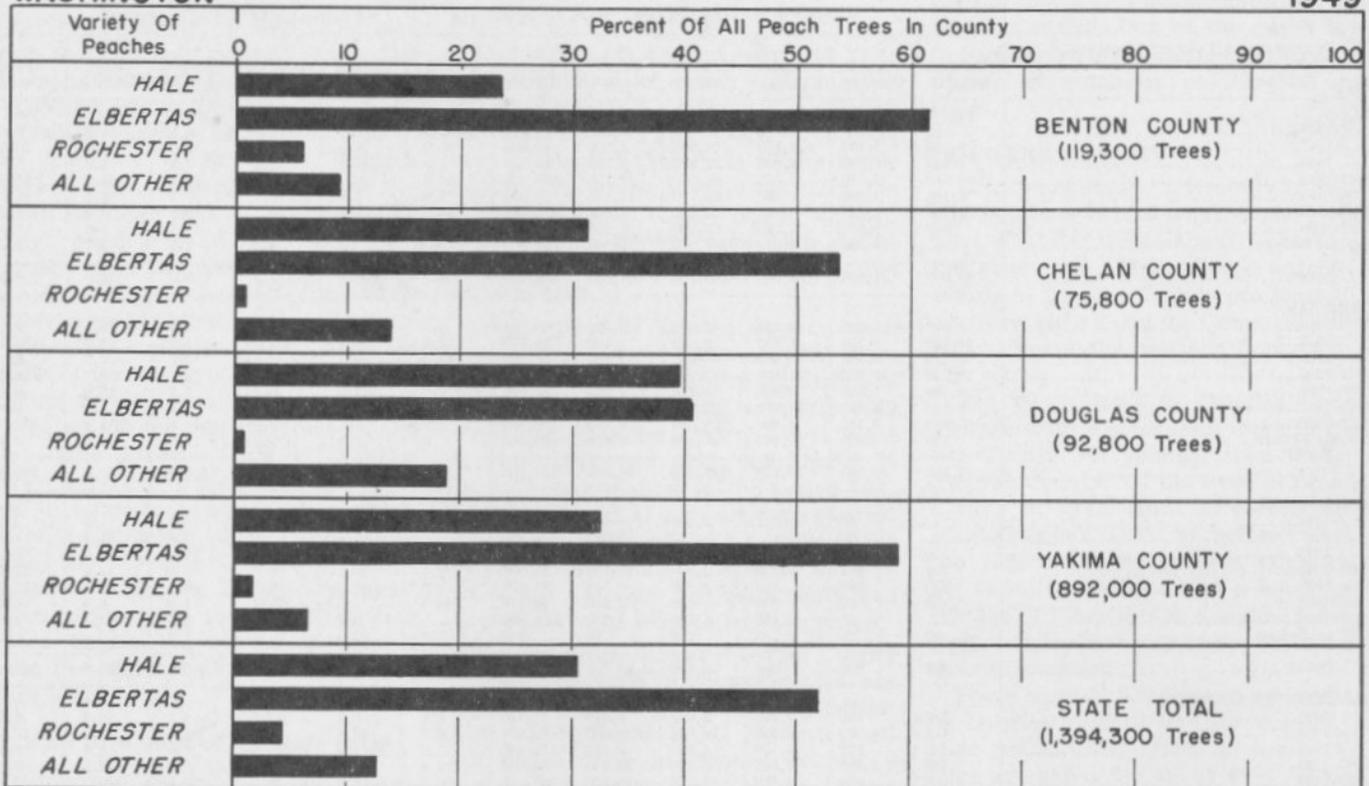


Figure 17. About 52 percent of all the peach trees in the state of Washington were the Elberta variety. Hales accounted for about 31 percent and Rochesters for about 5 percent. Miscellaneous varieties formed the other 12 percent. In Yakima County, which had more peach trees than all the other important commercial counties combined, Elbertas comprised almost 60 percent of the peach trees. In Chelan, Elbertas were 54 percent of the total; in Douglas about 40 percent were Elbertas; and in Benton about 61 percent were Elbertas. In Douglas, Hales were almost as important as the Elberta variety.

AGE OF PEACH TREES BY VARIETIES

WASHINGTON EXPRESSED AS PERIOD OR YEAR OF PLANTING 1949

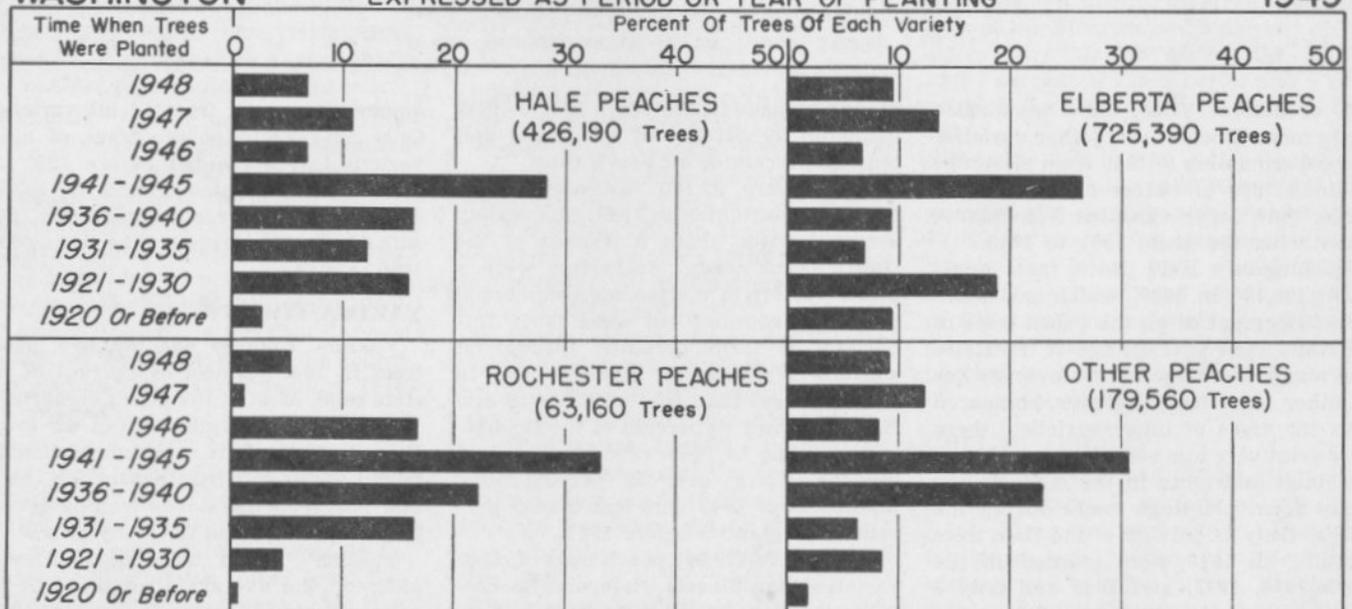


Figure 18. Peach trees in the State of Washington in 1949 were relatively young. Many of the trees that were in the orchards in 1949 were planted after 1940. Plantings were fairly heavy in the five years 1941-45. In the case of Elberta peaches a greater percentage of those alive in 1949 were planted in the three years 1945-47 than in the five preceding years. Almost as many Hales and Rochesters were planted in 1945-46-47 as in the longer 1941-45 period. The same was true of the miscellaneous varieties. Although well over 50 percent of the Elberta peach trees were less than 7 years old in 1949, almost 30 percent were planted before 1931.

Table 24.—Peach Trees: Number and Percentage of Trees by Variety and Year of Planting, Selected Counties, Washington, 1949

| Variety and Year of Planting | NUMBER BY COUNTIES | | | | | | PERCENTAGE BY COUNTIES | | | | | |
|------------------------------|--------------------|---------------|----------------|----------------|----------------|------------------|------------------------|---------------|----------------|---------------|----------------|---------------|
| | Benton County | Chelan County | Douglas County | Yakima County | Other Counties | State Total | Benton County | Chelan County | Douglas County | Yakima County | Other Counties | State Total |
| | No. | No. | No. | No. | No. | No. | Pct. | Pct. | Pct. | Pct. | Pct. | Pct. |
| HALES | | | | | | | | | | | | |
| 1948..... | 840 | 3,000 | 3,510 | 15,970 | 2,460 | 28,880 | 3.0 | 12.8 | 9.6 | 6.5 | 5.2 | 6.8 |
| 1947..... | 8,430 | 4,500 | 5,370 | 26,070 | 1,920 | 46,290 | 30.0 | 18.9 | 14.6 | 9.0 | 4.0 | 10.9 |
| 1946..... | 560 | 2,800 | 2,000 | 21,480 | 2,150 | 29,110 | 2.0 | 12.0 | 5.6 | 7.4 | 4.5 | 6.8 |
| 1941-1945..... | 8,640 | 8,610 | 9,350 | 69,550 | 24,130 | 130,280 | 30.8 | 26.3 | 25.4 | 24.1 | 51.0 | 28.2 |
| 1936-1940..... | 4,470 | 1,000 | 7,030 | 45,710 | 11,170 | 70,040 | 15.9 | 7.0 | 19.1 | 15.7 | 23.6 | 16.4 |
| 1931-1935..... | 4,200 | 1,720 | 3,920 | 39,300 | 3,040 | 52,180 | 15.0 | 7.2 | 19.7 | 13.5 | 6.4 | 12.2 |
| 1921-1930..... | 920 | 1,850 | 3,210 | 61,200 | 1,320 | 67,900 | 3.3 | 5.7 | 8.7 | 21.1 | 2.6 | 15.9 |
| 1920 or Before..... | | 50 | 2,310 | 7,940 | 1,260 | 11,560 | | .2 | 6.3 | 2.7 | 2.7 | 2.7 |
| Total..... | 28,060 | 23,800 | 36,760 | 226,220 | 47,350 | 426,190 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| ELBERTAS | | | | | | | | | | | | |
| 1948..... | 4,570 | 3,800 | 2,720 | 45,970 | 8,790 | 66,860 | 6.2 | 9.5 | 9.9 | 8.7 | 18.8 | 9.2 |
| 1947..... | 24,130 | 7,500 | 4,110 | 59,620 | 1,400 | 96,800 | 33.0 | 18.7 | 10.9 | 11.2 | 3.0 | 13.2 |
| 1946..... | 9,720 | 3,880 | 2,900 | 28,620 | 3,280 | 48,880 | 13.3 | 9.6 | 10.5 | 5.3 | 7.0 | 6.7 |
| 1941-1945..... | 15,720 | 17,020 | 11,000 | 132,210 | 14,840 | 190,820 | 21.5 | 42.0 | 29.3 | 25.1 | 31.7 | 26.4 |
| 1936-1940..... | 5,750 | 1,640 | 5,020 | 46,710 | 7,230 | 66,380 | 7.9 | 4.0 | 13.4 | 8.9 | 15.5 | 9.2 |
| 1931-1935..... | 11,380 | 2,520 | 2,170 | 33,350 | 500 | 50,370 | 15.6 | 6.2 | 5.8 | 6.3 | 1.9 | 6.9 |
| 1921-1930..... | 1,640 | 3,080 | 4,890 | 120,300 | 6,970 | 136,880 | 2.2 | 7.6 | 13.0 | 22.8 | 14.9 | 18.9 |
| 1920 or Before..... | 180 | 500 | 2,650 | 61,120 | 3,360 | 68,340 | .2 | 2.4 | 7.2 | 11.6 | 7.2 | 9.4 |
| Total..... | 73,090 | 40,500 | 37,630 | 527,300 | 46,780 | 725,300 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| ROCHESTERS | | | | | | | | | | | | |
| 1948..... | | 50 | | 2,800 | 480 | 3,330 | | 6.2 | | 18.1 | 1.2 | 5.3 |
| 1947..... | | 30 | | 120 | 680 | 830 | | 3.8 | | .8 | 1.8 | 1.3 |
| 1946..... | | 20 | | 4,360 | 6,190 | 10,570 | | 2.5 | | 28.2 | 16.0 | 16.7 |
| 1941-1945..... | 100 | 240 | 290 | 3,200 | 17,100 | 21,000 | 1.4 | 20.1 | 39.8 | 30.6 | 44.1 | 33.3 |
| 1936-1940..... | 330 | 330 | 250 | 2,890 | 9,550 | 13,800 | 12.2 | 41.2 | 25.5 | 18.7 | 24.6 | 22.0 |
| 1931-1935..... | 6,130 | 60 | 200 | 620 | 2,430 | 10,440 | 86.2 | 7.5 | 29.4 | 4.0 | 8.8 | 16.5 |
| 1921-1930..... | | 50 | 140 | 1,290 | 1,250 | 2,800 | | 6.2 | 14.3 | 8.3 | 3.5 | 4.5 |
| 1920 or Before..... | 10 | 20 | | 200 | 10 | 240 | .2 | 2.5 | | 1.3 | | .4 |
| Total..... | 7,110 | 800 | 980 | 15,480 | 28,730 | 63,160 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| ALL OTHER VARIETIES | | | | | | | | | | | | |
| 1948..... | 720 | 880 | 2,210 | 3,680 | 8,610 | 16,110 | 6.6 | 8.3 | 12.7 | 6.2 | 10.6 | 9.0 |
| 1947..... | 740 | 4,920 | 3,400 | 8,270 | 4,900 | 22,230 | 6.7 | 46.4 | 19.5 | 14.0 | 6.0 | 12.4 |
| 1946..... | 1,430 | 320 | 3,100 | 4,620 | 5,480 | 15,150 | 13.0 | 4.9 | 17.8 | 7.8 | 6.7 | 8.4 |
| 1941-1945..... | 2,580 | 2,700 | 4,500 | 9,590 | 35,460 | 54,830 | 23.4 | 25.5 | 25.8 | 16.2 | 43.5 | 30.6 |
| 1936-1940..... | 2,960 | 830 | 3,440 | 17,320 | 16,820 | 41,380 | 26.8 | 7.8 | 19.7 | 29.4 | 29.7 | 23.0 |
| 1931-1935..... | 1,150 | 530 | 500 | 6,580 | 2,510 | 11,270 | 10.4 | 5.0 | 2.9 | 11.2 | 3.1 | 6.3 |
| 1921-1930..... | 1,220 | 90 | 150 | 7,020 | 6,830 | 15,310 | 11.9 | .8 | .9 | 11.9 | 8.4 | 8.5 |
| 1920 or Before..... | 230 | 140 | 130 | 1,920 | 800 | 3,280 | 2.1 | 1.3 | .7 | 2.3 | 1.6 | 1.8 |
| Total..... | 11,040 | 10,610 | 17,430 | 59,060 | 81,480 | 179,560 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| TOTAL PEACH TREES | | | | | | | | | | | | |
| 1948..... | 6,149 | 7,849 | 9,450 | 71,360 | 29,249 | 115,138 | 5.15 | 16.34 | 16.18 | 8.00 | 9.49 | 8.26 |
| 1947..... | 33,390 | 17,949 | 12,880 | 94,060 | 8,900 | 166,219 | 27.92 | 22.48 | 13.88 | 10.55 | 4.15 | 11.92 |
| 1946..... | 11,719 | 7,289 | 9,120 | 58,490 | 17,110 | 103,718 | 9.82 | 9.61 | 9.83 | 6.56 | 7.98 | 7.44 |
| 1941-1945..... | 27,640 | 28,570 | 25,270 | 214,550 | 91,530 | 386,560 | 22.65 | 37.69 | 27.23 | 24.06 | 42.69 | 27.75 |
| 1936-1940..... | 14,650 | 4,460 | 15,710 | 112,630 | 44,780 | 191,660 | 11.78 | 5.88 | 16.99 | 12.62 | 20.89 | 13.75 |
| 1931-1935..... | 22,860 | 4,840 | 6,190 | 79,890 | 9,880 | 124,860 | 19.16 | 6.39 | 7.32 | 8.05 | 4.61 | 8.91 |
| 1921-1930..... | 3,780 | 4,570 | 8,390 | 189,810 | 16,370 | 222,920 | 3.17 | 6.03 | 9.04 | 91.28 | 7.63 | 15.99 |
| 1920 or Before..... | 420 | 1,300 | 5,130 | 71,180 | 5,490 | 83,480 | .35 | 1.58 | 6.03 | 7.98 | 2.56 | 5.98 |
| Total..... | 119,300 | 75,800 | 98,800 | 892,000 | 214,400 | 1,804,800 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

1920 or before. Thus, there were relatively more Elbertas than other varieties of trees remaining in 1949 from plantings made in 1930 or before and fewer Elbertas than other varieties from plantings during the years 1931 to 1940.

Washington's Hale peach trees numbered 426,190 in 1949, which was more than 30 percent of all the peach trees in the state. The average age of the Hales was about the same as the average for all other varieties. However, compared with the trees of other varieties, there were relatively less very young and very old Hales and more in the medium age group from plantings made during the 1930's. Only 24 percent of the Hale trees standing in 1949 were planted in the years 1946, 1947, and 1948 and only 3 percent were planted before 1921, compared with 27 percent and 6 percent of all varieties for these respective periods. On the other hand, trees remaining from

plantings made in the years 1931 to 1940 made up 29 percent of the Hales and only 23 percent of all peach trees.

There were 63,160 Rochester peach trees in Washington in 1949, this variety accounting for about 5 percent of the state's peach trees. Rochesters were a minor variety in the leading commercial producing counties but were fairly important in farm orchards throughout western Washington. Average age in 1949 was less than that of Elbertas and Hales. Almost 40 percent of the Rochesters standing in 1949 were planted during the 1930's; over 56 percent were planted after 1940; and less than 5 percent were planted before 1921.

There were 179,560 peach trees of other varieties than Elberta, Hale, and Rochester in the state when the Fruit Tree Survey was completed. Among these there was a smaller proportion of old trees and a larger proportion of young trees than

among the peach trees of all varieties. Only 10 percent of the trees of other varieties were planted before 1931; 29 percent were planted during the 1930's; over 60 percent were planted after 1940, with 30 percent planted in the three years 1946 to 1948.

YAKIMA COUNTY

Yakima County had 892,000 peach trees in 1949—almost 64 percent of the state total. Most of the peach orchards in Yakima County are located in the lower Yakima Valley, an area internationally famed for its soft fruit production. Yakima has been the state's leading county in peach production for many years.

Yakima's peach trees in 1949 were older on the average than those in the remainder of the state. Despite the large number of young trees, Yakima had a higher proportion of trees planted during the 1920's and before 1920 than any other

county reflecting the earlier development of the industry. Of the peach trees in Yakima County in 1949, 25 percent were planted in 1946, 1947, and 1948; 24 percent in the period 1941 to 1945; 22 percent during the 1930's; 21 percent during the 1920's; and 8 percent before 1921.

A greater degree of emphasis on the two leading varieties of peaches than in other counties characterized Yakima County in 1949. Elbertas and Hales accounted for more than 91 percent of the county's peach trees in 1949. Less than 2 percent were Rochester, and less than 7 percent were all other minor varieties.

There were 527,300 Elberta peach trees in Yakima County in 1949. Over 59 percent of the county's peach trees were Elbertas, and the county had about 73 percent of all the Elberta trees in the state. The Elberta trees in Yakima County averaged somewhat older than those in other counties. Even so, one-half of the county's Elberta trees were planted after 1940 and were less than 9 years old when the survey was made. Fifteen percent of the Elbertas were planted during the 1930's, 23 percent during the 1920's, and about 12 percent before 1921.

Yakima Mas Most of the Hale Trees

Yakima had 290,220 Hale peach trees in 1949. Over 32 percent of the county's trees were Hales, and 68 percent of the state's Hale trees were in Yakima County. The Hales in Yakima were older than the Elbertas in the county and older than the state average for Hales. Yakima had a larger proportion of Hale trees planted during the 1920's and 1930's than other counties. Nevertheless, there were more Hale trees planted in Yakima during the 1940's than in all other counties combined.

Rochester peach trees in Yakima County numbered 15,480 and represented 2 percent of the county's peach trees. Almost one-fourth of the state's Rochesters were in Yakima County. They were mostly young trees, less than 10 percent having been planted before 1931. About 23 percent were planted during the 1930's and over 67 percent after 1940. Almost one-half of the Rochesters in the county were planted in the three years of 1946, 1947, and 1948.

There were 59,000 peach trees of varieties other than Elberta, Hale, and Rochester in Yakima County in 1949, accounting for 7 percent of the county's total peach trees and 32 percent of the state's trees of these other varieties. Trees of other varieties were older than in the state as a whole. The county had 56 percent planted in 1940 or earlier and 44 percent in more recent years, whereas

the state had 40 percent planted in 1940 or earlier and 60 percent in more recent years.

BENTON COUNTY

Benton County ranked second to Yakima in number of peach trees in 1949 with 119,300 trees, or about 9 percent of the state total. The peach producing area in Benton County is in the lower Yakima Valley southeastward from the main Yakima County peach district. This Yakima-Benton area had almost 73 percent of all the peach trees in the state in 1949.

Peach trees in Benton County were much younger on the average than those in Yakima County. About 43 percent of the trees standing in the county in 1949 were planted in the three post-war years of 1946, 1947, and 1948; and almost 23 percent were planted in the period 1941 to 1945. About 31 percent were planted during the 1930's. Only 3 percent of the county's 1949 peach trees were over 18 years old, whereas Yakima County had 29 percent of its trees in this age group.

Elberta peach trees in Benton County in 1949, numbered 73,090 trees which was about 10 percent of the state's Elbertas. This variety made up 61 percent of all the peach trees in Benton County, a higher percentage than in any other county. The Elbertas in Benton were younger than those in the state as a whole. About 74 percent were planted after 1940 and only 2 percent were planted before 1931. Plantings were unusually large in 1947.

There were 28,060 Hale peach trees in Benton County in 1949, placing Benton third behind Yakima and Douglas Counties in number of Hale trees. Only 24 percent of Benton's peach trees were Hales—a lower percentage than in any of the other commercial counties. Benton had a higher than average proportion of young trees than other counties, with 35 percent less than 4 years old, and 31 percent 4 to 8 years old in 1949. About 31 percent of the county's Hale trees were planted during the 1930's and only 3 percent in earlier years.

Rochester peach trees in Benton County in 1949 numbered only 7,110, or about 6 percent of all the county's peach trees. As a group, these were by far the oldest peach trees in the county. Nearly all the trees standing in 1949 were from plantings made during the 1930's, mostly in the years 1931 to 1935. There were virtually no Rochesters planted after 1940.

There were 11,040 trees of other varieties in Benton County in 1949, making up 9 percent of the county's peach trees. Trees of other varieties were younger

than the Rochesters but older than the Hales and Elbertas. About 13 percent were planted before 1931, 37 percent during the 1930's, and 50 percent after 1940. The age distribution of the peach trees in Benton County indicates an increasing degree of emphasis on Elbertas and Hales.

DOUGLAS COUNTY

Third most important county in peach tree numbers in 1949 was Douglas with a total of 92,800 trees—about 7 percent of the state total. Most of the peach orchards in Douglas County are located in a narrow strip along the Columbia River, which forms the western boundary of the county.

The peach trees in Douglas County average a little older than those in Benton County but younger than those in Yakima County. Of the trees in Douglas County in 1949, about 15 percent were planted before 1931, 24 percent during the 1930's, and 61 percent after 1940. By varieties, Douglas had a lower percentage of Elbertas and a higher percentage of Hales than any of the other commercial counties.

There were 37,630 Elberta peach trees in Douglas County in 1949 and 36,760 Hale peach trees. Each of these varieties accounted for about 40 percent of the county's peach trees. Almost 9 percent of the state's Hale trees were in Douglas County, but only 5 percent of the Elbertas were in this county. About 61 percent of the Elbertas and 54 percent of the Hales in the county in 1949 were planted after 1940; 19 percent of the Elbertas and 30 percent of the Hales were planted during the 1930's; 13 percent of the Elbertas and 9 percent of the Hales were planted during the 1920's; and 7 percent of the Elbertas and 6 percent of the Hales were planted before 1921.

Douglas County had 18,410 peach trees of all other varieties in 1949. About three-quarters of these trees were planted after 1940, with most of the remainder planted during the latter part of the 1930's. These trees constituted about one-fifth of the county's peach trees in 1949, but produced less than one-fifth of the peaches because of the high proportion of very young trees.

CHELAN COUNTY

Chelan County had 75,800 peach trees in 1949—about 5 percent of the state total. The peach orchards in Chelan are located on irrigated land along the Wenatchee and Columbia Rivers. The peach trees in Chelan County are younger than those in any other county. About 80 percent of the county's peach trees were planted after 1940, and 42 percent were

less than 4 years old when the survey was made. About 54 percent of Chelan's peach trees were Elbertas, 31 percent were Hales, and 15 percent all other varieties.

There were 40,590 Elberta trees in Chelan County in 1949 and 23,800 Hales—almost 6 percent of the state total of each of these varieties. About 80 percent of the Elbertas were planted after 1940, 10 percent during the 1930's, and 10 percent before 1931. Of the Hales in the county, about 80 percent were planted after 1940, 14 percent during the 1930's, and 6 percent before 1931. New plantings of both Hales and Elbertas were unusually large in 1947.

There were 11,410 peach trees of all other varieties in Chelan County in 1949. These trees made up 15 percent of all the county's peach trees. Less than 20 percent of these trees were planted before 1940; more than half the trees were planted after 1945 and were less than 4 years old in 1949.

PEARS

California, Washington, and Oregon led all states in number of pear trees in 1950, according to the United States Census. With 4,328,444 trees California was in first place by a wide margin. Washington, in second place, had 1,632,884 trees; while Oregon was in third place with 1,417,216 trees. Michigan, in the Midwest, had 853,249 pear trees to rank in fourth place; and New York was fifth with 693,880. No other state had more than 350,000 pear trees. In 1949, at the time of the fruit tree survey, Washington had 1,664,900 pear trees, indicating a net removal of trees before the census was taken.

Most of the pear trees in Washington in 1949 were located in the same central area which are also the center of the state's apple production. Over 70 percent of the trees were in Yakima County alone. The dominant varieties were Bartlett and D'Anjou, which together comprised more than 90 percent of the

total pear trees. The proportion of older trees was relatively high; about 56 percent of the state's pear trees standing in 1949 were planted before 1930.

Bartletts Most Important

The Bartlett was by far the most important variety among the state's pear trees in 1949. Bartlett pear trees in that year numbered 1,202,940, which was more than 72 percent of the pear trees of all varieties. Bartlett pear trees outnumbered all other varieties combined in each of the commercial producing counties. The average age of the Bartletts was slightly less than the average for all varieties.

About 23 percent of the Bartlett pear trees standing in 1949 were over 29 years old, having been planted in 1920 or before. About 32 percent were in the 19 to 28 year age group, having been planted during the 1920's. Only 22 percent of the Bartlett pear trees standing in 1949 were planted during the decade of the 1930's. Surviving trees from

Table 25.—Pear Trees: Number of Trees by Variety and Year of Planting, Selected Counties, Washington, 1949

| County and Variety Grown | NUMBER OF TREES BY YEAR OF PLANTING | | | | | | | | | | | Total Number of Trees of All Ages | |
|---------------------------|-------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|-----------------------------------|------------------|
| | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940-1936 | 1935-1931 | 1930-1921 | | 1920 or Before |
| CHELAN COUNTY | | | | | | | | | | | | | |
| Bartlett..... | 9,050 | 9,740 | 12,960 | 10,040 | 7,270 | 5,810 | 5,440 | 4,080 | 7,250 | 26,600 | 36,220 | 26,160 | 160,780 |
| D'Anjou..... | 4,560 | 17,020 | 7,900 | 4,030 | 1,710 | 280 | 1,430 | 2,280 | 8,960 | 20,730 | 25,620 | 20,480 | 115,120 |
| Bosc..... | 130 | 130 | 90 | | 60 | | | 20 | 200 | 1,600 | 5,000 | 880 | 8,260 |
| Nelis..... | | | | | | | | | | 10 | 20 | 30 | 60 |
| Other Varieties..... | 10 | 40 | | 170 | 30 | | | 10 | 120 | 880 | 800 | 320 | 2,480 |
| Total..... | 13,770 | 26,930 | 20,950 | 14,240 | 9,070 | 6,190 | 6,870 | 6,390 | 16,690 | 49,670 | 67,720 | 47,910 | 286,700 |
| DOUGLAS COUNTY | | | | | | | | | | | | | |
| Bartlett..... | 6,540 | 4,940 | 6,320 | 1,400 | 640 | 2,800 | 380 | 370 | 1,000 | 1,630 | 6,030 | 2,720 | 35,700 |
| D'Anjou..... | 1,370 | 4,900 | 1,520 | | 710 | 30 | 40 | | 120 | 780 | 980 | 870 | 11,410 |
| Bosc..... | | | | 170 | | | | | | 150 | 10 | 20 | 350 |
| Nelis..... | | | | | | | | | | | 10 | 10 | 10 |
| Other Varieties..... | | | 140 | 140 | 20 | | | | | 330 | 310 | | 940 |
| Total..... | 7,910 | 9,930 | 7,980 | 1,710 | 1,370 | 2,830 | 420 | 370 | 1,180 | 2,800 | 8,230 | 3,620 | 48,500 |
| OKANOGAN COUNTY | | | | | | | | | | | | | |
| Bartlett..... | 500 | 900 | 280 | 790 | 60 | 200 | 20 | | 80 | 940 | 6,030 | 1,370 | 11,350 |
| D'Anjou..... | 400 | 1,110 | 10 | | | | | 10 | 80 | 290 | 3,050 | 320 | 5,330 |
| Bosc..... | | 30 | | | | | | | | | 340 | | 370 |
| Nelis..... | | | | | | | | | | | | | |
| Other Varieties..... | | | | | | | | | | 20 | 100 | 30 | 150 |
| Total..... | 1,000 | 2,040 | 290 | 790 | 60 | 200 | 20 | 10 | 160 | 1,250 | 9,520 | 1,720 | 17,200 |
| YAKIMA COUNTY | | | | | | | | | | | | | |
| Bartlett..... | 24,020 | 22,050 | 22,760 | 19,100 | 24,350 | 22,000 | 17,070 | 17,690 | 56,550 | 100,160 | 318,930 | 226,030 | 981,310 |
| D'Anjou..... | 4,070 | 7,130 | 7,780 | 3,650 | 3,530 | 1,020 | 1,750 | 1,360 | 10,070 | 22,830 | 40,260 | 27,500 | 120,850 |
| Bosc..... | 20 | | 10 | 20 | 2,310 | 10 | | | 250 | 8,200 | 31,110 | 3,690 | 45,720 |
| Nelis..... | | 540 | | | | 40 | | | 30 | 130 | 2,300 | 15,400 | 18,040 |
| Other Varieties..... | 1,350 | 240 | 200 | | | | 70 | 20 | 440 | 2,190 | 5,240 | 15,010 | 24,850 |
| Total..... | 29,460 | 29,960 | 30,840 | 22,770 | 30,190 | 23,070 | 18,890 | 19,010 | 67,440 | 185,860 | 410,940 | 300,270 | 1,169,300 |
| ALL OTHER COUNTIES | | | | | | | | | | | | | |
| Bartlett..... | 2,420 | 3,540 | 2,820 | 2,740 | 80 | 2,080 | 1,390 | 500 | 6,130 | 11,270 | 14,440 | 15,210 | 63,710 |
| D'Anjou..... | 600 | 700 | 430 | 40 | | 310 | | | 2,420 | 5,420 | 4,870 | 48,200 | 62,060 |
| Bosc..... | | | 120 | | | | | 10 | 20 | 5,870 | 510 | 3,740 | 10,270 |
| Nelis..... | 120 | | | | | | 70 | | 40 | 16 | 30 | 580 | 790 |
| Other Varieties..... | 380 | 70 | | | | | | | 70 | 790 | 2,380 | 1,840 | 5,440 |
| Total..... | 3,520 | 4,250 | 3,370 | 2,780 | 80 | 2,390 | 1,460 | 600 | 8,680 | 23,330 | 22,230 | 69,570 | 143,200 |
| STATE TOTAL | | | | | | | | | | | | | |
| Bartlett..... | 42,620 | 41,170 | 45,140 | 35,070 | 32,400 | 33,640 | 24,300 | 22,730 | 71,170 | 190,660 | 382,550 | 281,490 | 1,202,940 |
| D'Anjou..... | 11,080 | 30,950 | 17,640 | 7,720 | 5,950 | 1,740 | 3,220 | 3,550 | 21,650 | 50,050 | 74,780 | 97,370 | 325,700 |
| Bosc..... | 150 | 160 | 220 | 190 | 2,370 | 10 | | 40 | 530 | 16,000 | 36,970 | 8,330 | 64,970 |
| Nelis..... | 120 | 540 | | | | 40 | 10 | 30 | 170 | 2,410 | 15,450 | 18,690 | 37,430 |
| Other Varieties..... | 1,740 | 290 | 430 | 310 | 50 | | 70 | 30 | 630 | 4,190 | 8,800 | 17,240 | 33,860 |
| Total..... | 55,710 | 73,110 | 63,430 | 43,290 | 40,770 | 35,430 | 27,600 | 26,380 | 94,150 | 263,300 | 518,640 | 423,090 | 1,664,900 |

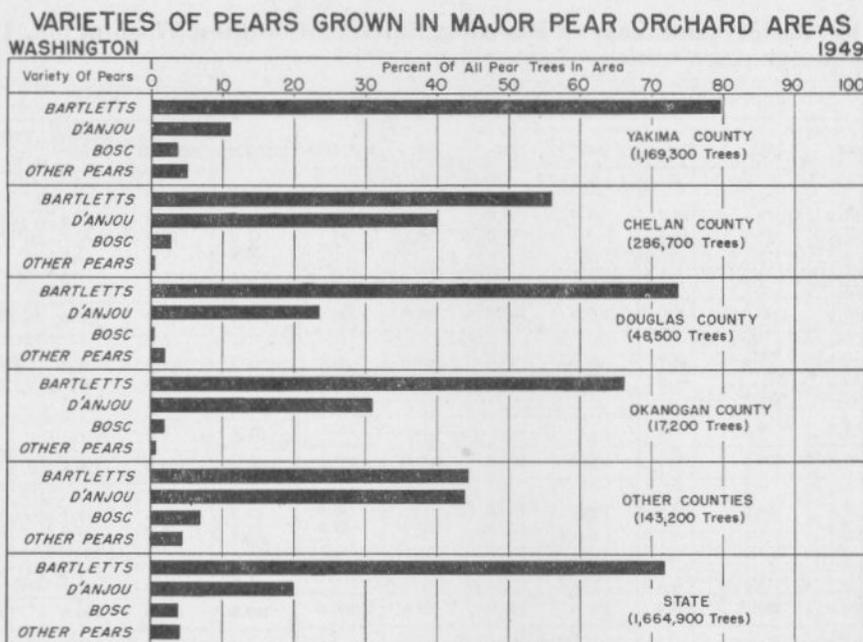


Figure 19. Over 72 percent of the pear trees in the State of Washington in 1949 were Bartletts. Almost 80 percent of the pear trees in Yakima County, which is the leading county in pears, were Bartlett pear trees. Bartletts also led in Chelan, Douglas, and Okanogan Counties; but there was a much higher percentage of D'Anjous in those counties than in Yakima. In counties other than those named there were almost as many D'Anjou pear trees reported as there were Bartletts.

plantings in 1931-35 were almost three times as numerous as those from plantings in 1936-40.

About 23 percent of the Bartletts standing in 1949 were less than 9 years old, having been planted after 1940. During the early part of the 1940's about 30,000 Bartlett trees were planted each year, but for the three years 1946-48 annual plantings exceeded 40,000 trees.

D'Anjous Comprise One-Fifth of Total

The second most important variety of pear tree in 1949 was the D'Anjou. There were 325,700 D'Anjou trees, which was almost 20 percent of the pear trees of all varieties. The D'Anjou variety was second to the Bartlett in importance in each of the major producing counties, as well as in the entire state. The average age of the D'Anjous was about the same as the average for all varieties. Percentage-wise, there were more very old and very young D'Anjou trees and fewer in the medium-age groups planted from 1920 to 1940.

About 30 percent, or 97,370 of the D'Anjou pear trees standing in 1949 were planted in 1920 or before. Trees planted during the 1920's made up 23 percent of the total of D'Anjous, and trees planted during the 1930's about 22 percent. For pear trees of varieties other than D'Anjou, the surviving trees from plantings in the 1920's far outnumbered those from plantings in the 1930's.

Over 25 percent of the D'Anjou pear trees standing in 1949 were less than 9

years old, and over 18 percent were planted in the three postwar years of 1946, 1947, and 1948. The heavy plantings in these years represented a comeback for the D'Anjou variety which had been less popular in the preceding 10 years.

Bosc Trees Mostly Middle-Aged

There were 64,970 Bosc pear trees in Washington in 1949, representing almost 4 percent of the pear trees of all varieties. In contrast to the D'Anjous, most of the Bosc trees were in the middle-age bracket of 14 to 28 years. Over 80 percent of the Bosc trees standing in 1949 were planted in the 15-year period from 1921 to 1935. Only 13 percent were in the

older age group planted in 1920 or before, and only 6 percent were in the younger group planted after 1935.

The fourth variety of commercially important pears among the trees standing in 1949 was the Nelis. The indicated total of 37,430 Nelis trees comprised slightly more than 2 percent of all the pear trees in the state. The age distribution of the Nelis clearly shows the declining importance of this variety. The average age of the Nelis trees was much higher than that of any other variety. One-half of the Nelis trees were planted in 1920 or before, more than 40 percent during the 1920's, and less than 10 percent in the 18 years from 1931 to 1948.

All varieties other than Bartlett, D'Anjou, Bosc, and Nelis made up only 2 percent of the state's pear trees in 1949. The 33,860 trees of other varieties were predominantly older trees, although they averaged slightly younger than the Nelis. Over one-half the trees of other varieties were planted before 1921, and 26 percent were planted in the 1920's. About 12 percent were planted from 1931 to 1935, 2 percent from 1936 to 1940, and the remaining 10 percent in the years 1941 to 1948.

The age distribution of the pear trees in 1949 indicates that the leading varieties, Bartlett and D'Anjous, are destined to become even more important in the future and that the minor varieties will become less significant over the years. Plantings during the 13-year period of 1936 to 1948 made up 32 percent of the D'Anjou trees standing in 1949 and 29 percent of the Bartletts. On the other hand, only 6 percent of the Bosc trees, 2 percent of the Nelis, and 10 percent of the trees of other varieties were planted in the most recent period covered by the Fruit Tree Survey.

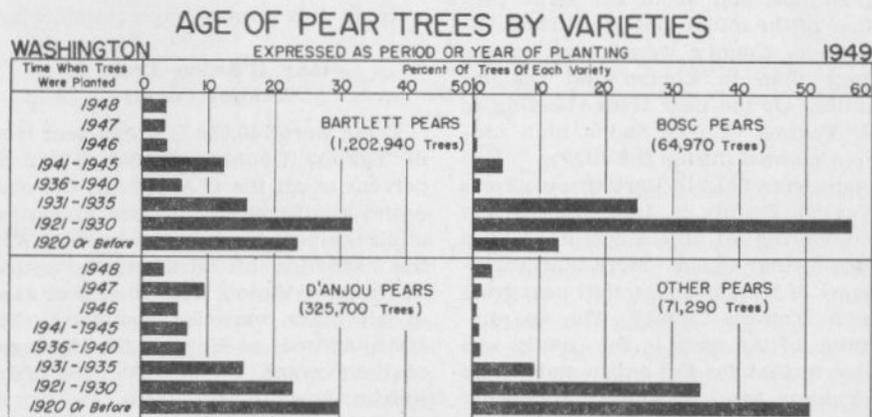


Figure 20. Over 50 percent of the Bartlett pear trees in Washington orchards in 1949 were planted before 1931. The same was true of D'Anjou pear trees. Almost 70 percent of the Bosc pears in the state and almost 80 percent of the miscellaneous varieties were planted before 1930. Following 1940, growers seemed to prefer only Bartletts and D'Anjous. About 25 percent of the Bartlett and D'Anjou pears were planted after 1940.

Table 26.—Pears: Percentage of Trees by Variety and Year of Planting, Selected Counties, Washington, 1949

| County and Variety Grown | PERCENTAGE OF TREES BY YEAR OF PLANTING | | | | | | | | | | | | Trees of All Ages |
|---------------------------|---|-------|-------|-------|-------|-------|-------|-------|-----------|-----------|-----------|----------------|-------------------|
| | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940-1936 | 1935-1931 | 1930-1921 | 1920 or Before | |
| CHELAN COUNTY | | | | | | | | | | | | | |
| Bartlett..... | 65.7 | 36.2 | 61.9 | 70.5 | 80.2 | 93.9 | 79.2 | 63.8 | 44.0 | | | | |
| D'Anjou..... | 33.3 | 63.2 | 37.7 | 28.3 | 18.8 | 6.1 | 20.8 | 35.7 | 53.7 | 53.4 | 53.5 | 54.6 | 56.08 |
| Bosc..... | .9 | .5 | .4 | | .7 | | | .3 | 1.6 | 3.4 | 7.4 | 1.8 | 2.89 |
| Nellis..... | | | | | | | | | | | | .1 | |
| Other Varieties..... | .1 | .1 | | 1.2 | .3 | | | .2 | .7 | 1.7 | 1.3 | .8 | .87 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| DOUGLAS COUNTY | | | | | | | | | | | | | |
| Bartlett..... | 82.7 | 49.7 | 79.2 | 81.9 | 46.7 | 99.0 | 90.5 | 100.0 | 89.8 | 56.4 | 84.2 | 75.1 | 73.79 |
| D'Anjou..... | 17.3 | 50.3 | 19.0 | | 51.8 | 1.0 | 9.5 | | 10.2 | 27.0 | 11.9 | 24.0 | 23.53 |
| Bosc..... | | | | 9.9 | | | | | | 5.2 | .1 | .6 | .72 |
| Nellis..... | | | | | | | | | | | | .3 | .02 |
| Other Varieties..... | | | 1.8 | 8.2 | 1.5 | | | | | 11.4 | 3.8 | | 1.94 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| OKANOGAN COUNTY | | | | | | | | | | | | | |
| Bartlett..... | 56.2 | 44.1 | 96.6 | 100.0 | 100.0 | 100.0 | 100.0 | | 50.0 | 75.2 | 63.3 | 79.7 | 65.99 |
| D'Anjou..... | 43.8 | 54.4 | 3.4 | | | | | 100.0 | 50.0 | 23.2 | 32.0 | 18.6 | 30.99 |
| Bosc..... | | 1.5 | | | | | | | | | 3.6 | | 2.15 |
| Nellis..... | | | | | | | | | | | | | |
| Other Varieties..... | | | | | | | | | | 1.6 | 1.1 | 1.7 | .87 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| YAKIMA COUNTY | | | | | | | | | | | | | |
| Bartlett..... | 81.5 | 73.6 | 73.8 | 83.9 | 80.7 | 95.5 | 90.4 | 93.0 | 83.9 | 80.8 | 77.6 | 78.6 | 79.65 |
| D'Anjou..... | 13.8 | 23.8 | 25.2 | 16.0 | 11.7 | 4.3 | 9.2 | 6.6 | 14.9 | 12.3 | 9.8 | 9.2 | 11.19 |
| Bosc..... | .1 | | | .1 | 7.6 | | | .1 | .4 | 4.4 | 7.6 | 1.2 | 3.91 |
| Nellis..... | | 1.8 | | | | .2 | | .2 | .2 | 1.3 | 3.7 | 6.0 | 3.13 |
| Other Varieties..... | 4.6 | .8 | 1.0 | | | | .4 | .1 | .6 | 1.2 | 1.3 | 5.0 | 2.12 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| ALL OTHER COUNTIES | | | | | | | | | | | | | |
| Bartlett..... | 68.8 | 83.3 | 83.7 | 98.9 | 100.0 | 87.0 | 99.3 | 98.3 | 70.6 | 48.3 | 65.0 | 21.9 | 44.49 |
| D'Anjou..... | 17.0 | 16.5 | 12.7 | 1.1 | | 13.0 | | | 27.9 | 23.2 | 21.9 | 69.3 | 43.99 |
| Bosc..... | | | 3.6 | | | | | 1.7 | .2 | 25.2 | 2.3 | 5.4 | 7.17 |
| Nellis..... | 3.4 | | | | | | .7 | | .5 | | .1 | .8 | .55 |
| Other Varieties..... | 10.8 | .2 | | | | | | | .8 | 3.3 | 10.7 | 2.6 | 3.80 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| STATE TOTAL | | | | | | | | | | | | | |
| Bartlett..... | 76.5 | 56.3 | 71.2 | 81.0 | 79.5 | 95.0 | 88.0 | 86.2 | 75.6 | 72.4 | 73.8 | 66.5 | 72.25 |
| D'Anjou..... | 19.9 | 42.3 | 27.8 | 17.9 | 14.6 | 4.9 | 11.7 | 13.4 | 23.0 | 19.0 | 14.4 | 23.0 | 19.56 |
| Bosc..... | .3 | .2 | .3 | .4 | 5.8 | | | .2 | .5 | 6.1 | 7.1 | 2.0 | 3.90 |
| Nellis..... | .2 | .8 | | | | .1 | | .1 | .2 | .9 | 3.0 | 4.4 | 2.25 |
| Other Varieties..... | 3.1 | .4 | .7 | .7 | .1 | | .3 | .1 | .7 | 1.6 | 1.7 | 4.1 | 2.04 |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |

YAKIMA COUNTY

In 1949 Yakima County had 1,169,300 pear trees—more than 70 percent of the state total. In comparison with the state as a whole, Yakima had a higher percentage of Bartletts, a lower percentage of D'Anjous, and about the same percentage of the minor varieties. The trees in Yakima County were older on the average than in Chelan and Douglas Counties. Of the pear trees standing in 1949, Yakima County had a high proportion planted during the 1920's.

There were 931,310 Bartlett pear trees in Yakima County in 1949, this variety outnumbering all others combined by a margin of four to one. More than three-quarters of the state's Bartlett pear trees were in Yakima County. The age distribution of the trees in the county was similar to that for the entire state, with the Yakima trees showing a somewhat higher average age.

Over 25 percent of Yakima County's Bartlett pear trees standing in 1949 were planted in 1920 or before, over 34 per-

cent were planted in the 1920's, and 22 percent in the 1930's. The percentage of trees in each of these older age groups was higher in Yakima than in the state as a whole. Only 18 percent of Yakima's Bartlett trees were planted after 1940, whereas 23 percent of the state's Bartletts were in this younger-age classification.

Many D'Anjou Trees in Yakima County

There were 130,850 D'Anjou pear trees in Yakima County in 1949—about 40 percent of all the D'Anjous in the state—and this variety comprised 11 percent of all the pear trees in the county. With the exception of Bartletts, the county had more D'Anjou trees than pear trees of all other varieties combined. The D'Anjou trees in Yakima County were, on the average, younger than the D'Anjous in the state as a whole.

About 21 percent of the D'Anjous in Yakima County were in the oldest age group, having been planted in 1920 or before. About 31 percent were planted

during the years 1921 to 1930. In the entire state, about 30 percent of the D'Anjous were planted in 1920 or before, and 23 percent were planted in the 1920's. About 25 percent of Yakima's D'Anjou trees were planted in the 1930's, and the remaining 23 percent in the 1940's. The state as a whole had a lower proportion planted in the 1930's and a higher proportion in the 1940's.

There were 45,720 Bosc pear trees in Yakima County in 1949—over 70 percent of the state total of this variety. The Bosc was the third most important variety in the county, comprising about 4 percent of all the pear trees in Yakima County. The Bosc trees in Yakima were older on the average than the Bosc trees in the rest of the state. Over 76 percent of the Bosc trees in Yakima County were planted before 1931, with only 19 percent in the 1930's and 5 percent in the 1940's. Less than 70 percent of the Bosc trees in the state were planted before 1931, with 25 percent in the 1930's and 5 percent in the 1940's.

Table 27.—Pears: Number and Percentage by Varieties and by Year of Planting, Selected Counties, Washington, 1949

| Variety Grown by Year of Planting | NUMBER BY COUNTIES | | | | | | PERCENTAGE BY COUNTIES | | | | | |
|-----------------------------------|--------------------|----------------|-----------------|------------------|--------------------|------------------|------------------------|----------------|-----------------|---------------|--------------------|---------------|
| | Chelan County | Douglas County | Okanogan County | Yakima County | All Other Counties | State Total | Chelan County | Douglas County | Okanogan County | Yakima County | All Other Counties | State Total |
| BARTLETT | No. | No. | No. | No. | No. | No. | Pct. | Pct. | Pct. | Pct. | Pct. | Pct. |
| 1948..... | 9,740 | 4,940 | 900 | 22,050 | 3,540 | 41,170 | 5.6 | 18.3 | 5.2 | 2.6 | 3.8 | 3.5 |
| 1947..... | 9,950 | 6,540 | 590 | 24,030 | 2,420 | 42,620 | 6.1 | 13.8 | 7.9 | 2.4 | 5.5 | 3.4 |
| 1946..... | 12,960 | 6,320 | 280 | 32,760 | 2,820 | 45,140 | 8.1 | 17.6 | 2.5 | 2.4 | 4.4 | 3.8 |
| 1941-1945..... | 32,640 | 5,650 | 1,160 | 100,810 | 7,880 | 148,140 | 20.2 | 15.7 | 10.2 | 10.8 | 12.4 | 12.3 |
| 1936-1940..... | 7,350 | 1,060 | 80 | 56,550 | 6,130 | 71,170 | 4.6 | 3.0 | .7 | 6.1 | 9.6 | 5.9 |
| 1931-1935..... | 26,660 | 1,630 | 940 | 150,160 | 11,270 | 190,660 | 16.6 | 4.6 | 8.3 | 16.1 | 17.7 | 15.9 |
| 1921-1930..... | 36,220 | 6,930 | 6,030 | 318,930 | 14,440 | 382,550 | 22.5 | 19.4 | 53.1 | 34.3 | 22.7 | 31.8 |
| 1920 or Before..... | 26,160 | 2,720 | 1,370 | 236,030 | 15,210 | 281,490 | 16.3 | 7.6 | 12.1 | 25.3 | 23.9 | 23.4 |
| Total..... | 166,780 | 35,700 | 11,350 | 931,310 | 63,710 | 1,202,940 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| D'ANJOU | | | | | | | | | | | | |
| 1948..... | 4,580 | 1,370 | 460 | 4,070 | 600 | 11,080 | 4.0 | 12.0 | 8.6 | 3.1 | 1.0 | 3.4 |
| 1947..... | 17,020 | 4,990 | 1,110 | 7,130 | 700 | 29,950 | 14.8 | 43.7 | 20.8 | 3.5 | 1.1 | 9.5 |
| 1946..... | 7,900 | 1,620 | 10 | 7,780 | 430 | 17,640 | 6.9 | 13.3 | .2 | 5.9 | .7 | 5.4 |
| 1941-1945..... | 9,830 | 780 | 10 | 11,210 | 350 | 22,180 | 8.5 | 6.9 | .2 | 8.6 | .6 | 6.8 |
| 1936-1940..... | 8,960 | 120 | 80 | 10,070 | 2,420 | 21,650 | 7.8 | 1.1 | 1.5 | 7.7 | 3.8 | 6.6 |
| 1931-1935..... | 20,730 | 780 | 290 | 22,830 | 5,420 | 50,050 | 18.0 | 6.8 | 5.5 | 17.4 | 8.6 | 15.4 |
| 1921-1930..... | 25,620 | 980 | 3,050 | 40,260 | 4,870 | 74,780 | 22.2 | 8.6 | 57.2 | 30.8 | 7.7 | 23.0 |
| 1920 or Before..... | 20,480 | 870 | 320 | 27,500 | 48,200 | 97,370 | 17.8 | 7.6 | 6.0 | 21.0 | 76.5 | 29.9 |
| Total..... | 115,120 | 11,410 | 5,330 | 130,850 | 62,900 | 325,700 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| BOSC | | | | | | | | | | | | |
| 1948..... | 130 | | | 20 | | 150 | 1.6 | | | | | .2 |
| 1947..... | 130 | | 30 | | | 160 | 1.6 | | 8.1 | | | .2 |
| 1946..... | 90 | | | 10 | 120 | 220 | 1.1 | | | | 1.2 | .4 |
| 1941-1945..... | 80 | 170 | | 2,350 | 10 | 2,610 | .9 | 48.6 | | 5.1 | .1 | 4.1 |
| 1936-1940..... | 260 | | | 250 | 20 | 530 | 3.1 | | | .6 | .2 | .8 |
| 1931-1935..... | 1,690 | 150 | | 8,290 | 5,870 | 16,000 | 20.5 | 42.8 | | 18.1 | 57.1 | 24.6 |
| 1921-1930..... | 5,000 | 10 | 340 | 31,110 | 510 | 36,970 | 60.5 | 2.9 | 91.9 | 68.1 | 5.0 | 56.9 |
| 1920 or Before..... | 880 | 20 | | 3,690 | 3,740 | 8,330 | 10.7 | 5.7 | | 8.1 | 36.4 | 12.8 |
| Total..... | 8,260 | 350 | 370 | 45,720 | 10,270 | 64,970 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| NELIS | | | | | | | | | | | | |
| 1948..... | | | | | 120 | 120 | | | | | 15.2 | .3 |
| 1947..... | | | | 540 | | 540 | | | | 1.5 | | 1.4 |
| 1946..... | | | | | | | | | | | | |
| 1941-1945..... | | | | 70 | 10 | 80 | | | | .2 | 1.3 | .2 |
| 1936-1940..... | | | | 130 | 40 | 170 | | | | .4 | 5.0 | .5 |
| 1931-1935..... | | | | 2,390 | 10 | 2,410 | 16.7 | | | 6.5 | 1.3 | 6.4 |
| 1921-1930..... | 20 | | | 15,400 | 30 | 15,450 | 33.3 | | | 42.1 | 3.8 | 41.3 |
| 1920 or Before..... | 50 | 10 | | 18,040 | 580 | 18,660 | 30.0 | 100.0 | | 49.3 | 73.4 | 40.9 |
| Total..... | 60 | 10 | | 36,570 | 790 | 37,420 | 100.0 | 100.0 | | 100.0 | 100.0 | 100.0 |
| ALL OTHER VARIETIES | | | | | | | | | | | | |
| 1948..... | 10 | | | 1,350 | 380 | 1,740 | .4 | | | 5.4 | 7.0 | 5.1 |
| 1947..... | 40 | | | 240 | 10 | 290 | 1.6 | | | 1.0 | .2 | .9 |
| 1946..... | | 140 | | 290 | | 430 | | 14.9 | | 1.1 | | 1.3 |
| 1941-1945..... | 210 | 160 | | 90 | | 460 | 8.5 | 17.0 | | .4 | | 1.3 |
| 1936-1940..... | 120 | | | 440 | 70 | 630 | 4.8 | | | 1.8 | 1.3 | 1.9 |
| 1931-1935..... | 880 | 330 | 20 | 2,190 | 700 | 4,180 | 35.5 | 35.1 | 13.3 | 8.8 | 14.0 | 12.3 |
| 1921-1930..... | 800 | 310 | 100 | 5,240 | 2,380 | 8,890 | 34.7 | 33.0 | 66.7 | 21.1 | 43.7 | 26.3 |
| 1920 or Before..... | 300 | | 30 | 15,010 | 1,840 | 17,240 | 14.5 | | 20.0 | 60.4 | 33.8 | 50.9 |
| Total..... | 2,480 | 940 | 150 | 24,850 | 5,440 | 33,860 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| TOTAL PEAR TREES | | | | | | | | | | | | |
| 1948..... | 13,770 | 7,910 | 1,050 | 29,460 | 3,520 | 55,710 | 4.80 | 16.31 | 6.10 | 2.52 | 2.46 | 3.35 |
| 1947..... | 26,930 | 9,930 | 2,040 | 29,960 | 4,250 | 73,110 | 9.39 | 20.47 | 11.86 | 2.56 | 2.97 | 4.39 |
| 1946..... | 20,950 | 7,980 | 290 | 30,840 | 3,370 | 63,430 | 7.31 | 16.45 | 1.60 | 2.64 | 2.35 | 3.81 |
| 1941-1945..... | 42,760 | 6,760 | 1,170 | 114,530 | 8,250 | 173,470 | 14.92 | 13.95 | 6.80 | 9.80 | 5.77 | 10.42 |
| 1936-1940..... | 16,690 | 1,180 | 160 | 67,440 | 8,680 | 94,150 | 5.82 | 2.43 | .93 | 5.77 | 6.06 | 5.66 |
| 1931-1935..... | 49,970 | 2,890 | 1,250 | 185,860 | 23,230 | 263,300 | 17.43 | 5.96 | 7.27 | 15.89 | 16.29 | 15.81 |
| 1921-1930..... | 67,720 | 8,230 | 9,520 | 410,940 | 22,230 | 518,640 | 23.62 | 16.97 | 55.35 | 35.14 | 15.52 | 31.15 |
| 1920 or Before..... | 47,910 | 3,620 | 1,720 | 300,270 | 69,570 | 423,090 | 16.71 | 7.46 | 10.00 | 25.68 | 48.58 | 25.41 |
| Total..... | 286,700 | 48,500 | 17,200 | 1,169,200 | 143,200 | 1,664,900 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Most of the Nelis Are in Yakima County

Yakima County had 36,570 Nelis pear trees in 1949—over 98 percent of the state total of this variety. About 3 percent of all the pear trees in Yakima County were Nelis, and these trees were, on the average, much older than the trees of the more popular varieties. Almost one-half of the county's Nelis trees were planted in 1920 or before, and 42 percent were planted during the 1920's. Less than 2 percent were planted in the last

8 years covered by the Fruit Tree Survey, 1941 to 1948.

In 1949 there were 24,850 pear trees in Yakima County of varieties other than Bartlett, D'Anjou, Bosc, and Nelis. These trees accounted for 2 percent of all the pear trees in the county and also represented about 73 percent of the state's pear trees of "other" varieties. The average age of Yakima's pear trees of "other" varieties was high, with 60 percent planted in 1920 or before, 21 percent in the 1920's, 11 percent in the 1930's, and only 8 percent in the 1940's.

CHELAN COUNTY

There were about 286,700 pear trees of all ages and varieties in Chelan County in 1949. Chelan ranked second to Yakima in number of trees and had over 17 percent of the state's pear trees. In comparison with the state as a whole, Chelan County had a higher proportion of D'Anjou and relatively fewer trees of other varieties. The pear trees in Chelan County were considerably younger than the average for all counties. Chelan County had a lower proportion of pear trees planted before 1931 and a higher

proportion planted after 1940 than did other counties.

There were 160,780 Bartlett pear trees in Chelan County in 1949, and this leading variety accounted for 56 percent of the county's pear trees. About 13 percent of all Bartlett trees in the state were in Chelan County. The Bartlett pear trees in Chelan had a lower average age than those in any other county except Douglas. The percentage of Bartlett pear trees planted before 1931 was 39 for Chelan County and 55 for the state, and the percentage planted after 1940 was 40 for Chelan and only 23 for the entire state.

Chelan County had 115,120 D'Anjou pear trees in 1949, and this variety accounted for 40 percent of the county's pear trees. Chelan had over 35 percent of all the D'Anjou trees in the state and ranked a close second to Yakima County in number of D'Anjous. The D'Anjou trees in Chelan County were younger on the average than those in other counties. About 40 percent of the county's D'Anjous were planted before 1931, and 34 percent were planted after 1940; whereas in the entire state 53 percent of the D'Anjous were planted before 1931 and only 25 percent after 1940.

Chelan had 8,260 Bosc trees and 2,540 pear trees of other minor varieties in 1949. This represented about 12 percent of the state's Bosc trees and less than 5 percent of the state's trees of other minor varieties. Chelan's Bosc trees were similar in age classification to the Bosc trees in other counties, with 81 percent of the county's Bosc trees being planted from 1921 to 1935. Chelan's trees of other minor varieties were also mostly mature trees.

DOUGLAS COUNTY

Douglas County ranked third in total number of pear trees in 1949 with 48,500 trees, a little less than 3 percent of the state total. Compared with other counties, Douglas had a higher percentage of Bartlett trees and a lower percentage of the less important varieties. However, the outstanding characteristic of the pear trees in Douglas County was their low average age. A large majority of the county's pear trees were planted after 1940, and more than one-half of the trees were not of bearing age when the Fruit Tree Survey was made in 1949. This would indicate that Douglas County should become increasingly important as a pear producing area within the next few years.

Bartlett pear trees in Douglas County in 1949 numbered 35,790 and accounted for almost three-quarters of the county's pear trees of all varieties. Although ranking third among the state's counties in number of Bartlett pear trees, Dou-

glas had less than 3 percent of the state total. Over 65 percent of the Bartlett trees in Douglas County were planted after 1940, and over 50 percent were planted in the three postwar years of 1946, 1947, and 1948. Only 27 percent of the county's Bartletts were planted before 1931.

The 11,410 D'Anjou trees comprised about 23 percent of all the pear trees in Douglas County in 1949. The county had about 3 percent of the state's D'Anjous. The D'Anjou trees in Douglas County, like the Bartletts, were mostly very young trees. Only 16 percent were planted before 1931, 8 percent in the 1930's and 76 percent were put in after 1940. Douglas had very few pear trees of varieties other than Bartlett and D'Anjou in 1949. This county represented an extreme example of the statewide trend toward specialization in the 2 major varieties.

OKANOGAN COUNTY

There were 17,200 pear trees in Okanogan County in 1949. Okanogan had only one percent of the state's trees; nevertheless this county, in combination with Chelan and Douglas, was important commercially. Okanogan had a lower-than-average proportion of Bartletts, a higher proportion of D'Anjous, and very few pear trees of varieties other than these two. More than one-half of the county's 1949 pear trees were planted during the 1920's; trees planted before 1920 made up only 10 percent of the county total. Pear trees planted during the 1930's accounted for only 8 percent of the trees standing in 1949, but plantings after 1940 made up more than 26 percent of the total.

Almost two-thirds of Okanogan County's pear trees in 1949 were Bartletts, although the 11,350 trees comprised less than one percent of the state's Bartlett pear trees. About 53 percent of the Bartlett trees in Okanogan County were planted in the years 1921 to 1930; only 12 percent were older trees, and only 9 percent were planted from 1931 to 1940. The proportion of young trees planted after 1940 was lower than in the other north central counties of Chelan and Douglas, but was higher than in Yakima County.

Okanogan's 5,330 D'Anjou trees accounted for 31 percent of the county's pear trees of all varieties in 1949. The age distribution of the D'Anjous was similar to that of the Bartletts, with more than one-half of the trees planted during the 1920's and 30 percent after 1940. Surviving trees from plantings before 1921 made up less than 8 percent of the 1949 count, and trees planted during the 1930's comprised about an equal number.

OTHER COUNTIES

In 1949 there were 143,200 pear trees in counties other than the chief commercial areas of Yakima, Chelan, Douglas, and Okanogan Counties. Most important among these other counties were Klickitat, Skamania, Clark, Spokane, and King. These and other counties had a lower percentage of Bartletts, a higher percentage of D'Anjous, and a higher percentage of pear trees of other varieties than the counties in the two principal commercial areas.

PRUNE AND PLUM TREES

Washington had over 680,000 prune and plum trees in 1950 according to the United States Census, the state ranking third among the 48 states in that respect. California held first place by a wide margin with 11,749,000 trees—3,039,000 plum trees and 8,710,000 prune trees. Oregon held second place by a wide margin over Washington with 2,300,000 trees. Idaho was fourth and New York fifth with 426,000 and 419,000 prune and plum trees respectively. Michigan and Texas were important, also, with between 350,000 and 400,000 trees each. When the fruit tree survey was made in 1949—just one year before the Census was taken—there were 762,900 prune and plum trees in Washington.

Washington's prune and plum tree population in 1949 was dominated by Italian prunes—as it has been through the years. However, other varieties of prunes and plums were assuming a growing importance, as shown by the age distribution of the various varieties. Prune trees outnumbered plum trees by a ratio of about 7 to 1, and Italian prunes were about 10 times as numerous as all other varieties of prunes at the time the survey was taken.

Of all the prune and plum trees standing in the state in 1949, almost one-half were more than 15 years old and slightly more than one-half were less than 15 years old. Almost 25 percent of the trees were in the age bracket of 28 years and over, having been planted in 1920 or before. Many of these older trees were planted long before 1920, as prunes were one of the first soft fruit crops to be grown commercially in the state. There were 1,290,000 prune trees of bearing age in the year 1900; more than for the other soft fruit crops such as cherries, peaches, and apricots.

Heavy Plantings of Prunes in 1920's

About 17 percent of the prune and plum trees standing in Washington in 1949 were planted during the decade 1921-30. There were heavy plantings of prune and plum trees during the 1920's,

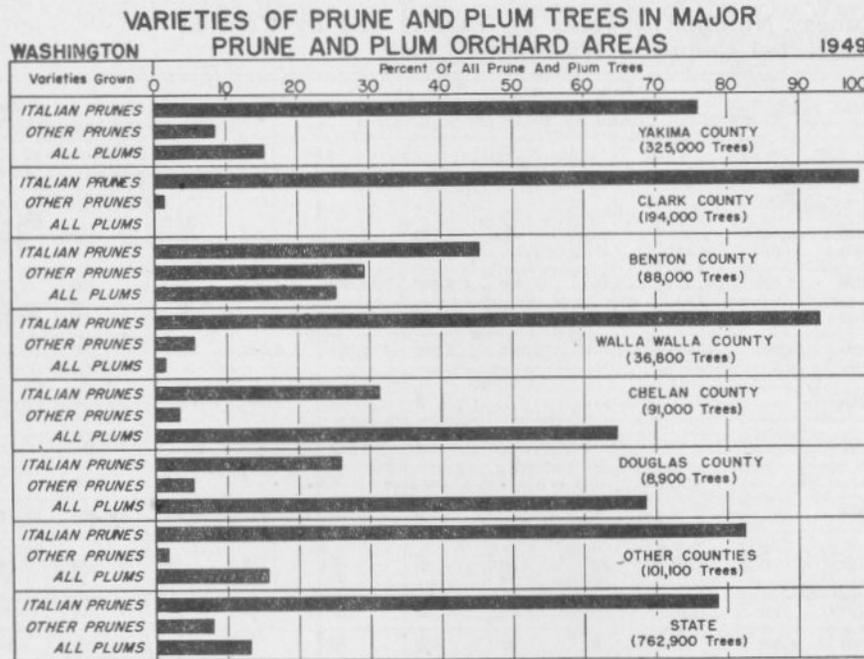


Figure 21. Almost 80 percent of the plum and prune trees in Washington in 1949 were Italian prunes. Yakima, Clark, and Walla Walla were counties in which Italian prune trees accounted for a very high proportion of the plum and prune trees. In Chelan and Douglas Counties, growers reported far more plum trees than prune trees. Benton County plum and prune trees were more evenly divided between Italian prunes, other prunes, and plums than in any other county.

Italian Prunes Predominate

During the three last years covered by the survey 1946 to 1948, plantings of Italian prune trees were unusually large, averaging more than 40,000 trees each year. This compares with the average of 25,000 trees per year surviving in 1949 from plantings in 1941-45, the average of 12,000 from plantings in 1936-40, and the average of 9,000 remaining from plantings in 1931-35.

Plum trees accounted for about 13 percent of the total number of prune and plum trees in 1949. In contrast to the Italian prunes, the state's 100,000 plum trees were very young. Three-fourths of all the plum trees were planted after 1940, and less than 10 percent were over 20 years old. Heaviest plantings were made in the years immediately following the end of World War II. Among the plantings prior to 1930, the plums were quite insignificant. After 1940 and until 1949 almost one-fourth of the new plantings were plum trees.

In the three post-war years of 1946, 1947, and 1948 plantings of plum trees in the state averaged over 14,000 per year. Among the trees planted in earlier years and still standing in 1949, the annual average for 1941-45 was 6,000 trees, for 1936-40 was 2,000, for 1931-35 was 1,600, and for the 1920's was only 350 trees per year.

About 8 percent of the state's plum and prune trees were prunes other than Italian. As in the case of plum trees, these other prune trees were relatively

and production was increasing to the all-time peak which was reached in 1929. Many of the trees planted during this period of expansion have been removed with the downward trend in tree numbers.

Actual plantings of prune and plum trees were about the same during the 1930's as in the preceding decade despite the depression. Plantings during the years 1936-40 were considerably larger than those in the years 1931-35. Of the trees surviving in 1949 those planted in the 1930's were slightly more numerous than those planted in the 1920's.

Approximately 16 percent of the total trees were planted in the years 1941-45, and some of these young trees were just coming into bearing age when the survey was made in 1949. More than 25 percent of all the prune and plum trees standing in 1949 were in the under 3-year age bracket, having been planted in the three years 1946, 1947, and 1948. By far the larger part of the late plantings were made in the increasingly important producing area of central Washington. (Table 29).

Italian prune trees constituted almost 80 percent of the total prune and plum tree numbers in 1949. One-half of the Italian prune trees standing in that year were over 20 years old and one-half were younger trees. The largest numbers of Italian prune trees were either very old or very young, with 29 percent over 30 years and 33 percent less than 10 years of age.

The distribution of Italian prune trees by ages was much more uniform than that of other varieties. However, the relative proportion of Italian prunes among new plantings almost steadily declined after 1920. Over 95 percent of all the trees older than 20 years were Italian, but only 75 percent of the standing trees planted in the 1930's were Italian,

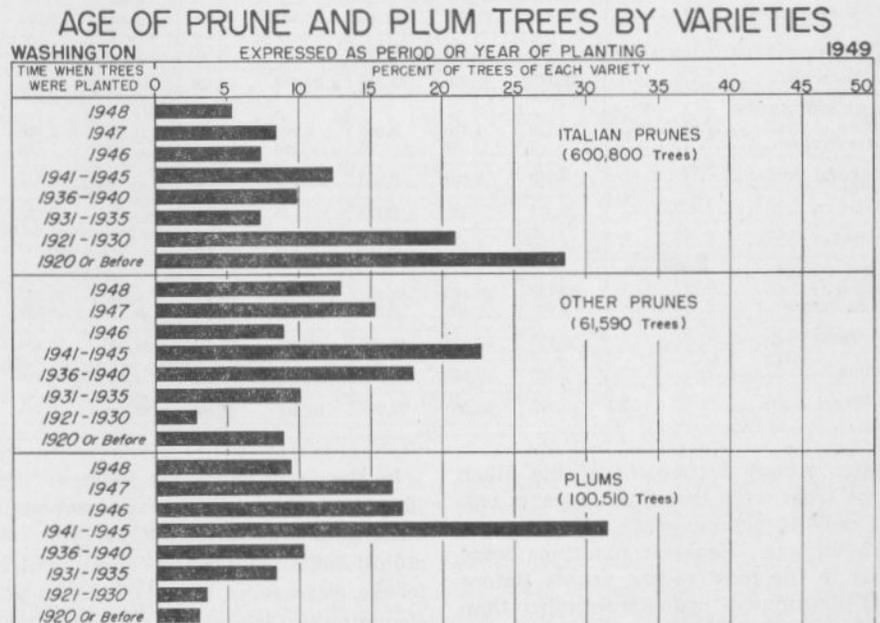


Figure 22. The Italian prune trees in Washington were considerably older than other prune trees and also older than plum trees. About 50 percent of the Italian prune trees were planted before 1931. Less than 12 percent of the other prunes and less than 7 percent of the plum trees were planted before 1931. Most of the prune trees other than Italian and most of the plum trees standing in 1949 were less than 10 years old.

Table 28.—Plums and Prunes: Number of Trees by Variety and by Year of Planting, Selected Counties, Washington, 1949

| County and Variety Grown | NUMBER OF TREES BY YEAR OF PLANTING | | | | | | | | | | | | Total Number of Trees of All Ages |
|---------------------------|-------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|-----------------------------------|
| | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940-1936 | 1935-1931 | 1930-1921 | 1920 or Before | |
| BENTON COUNTY | | | | | | | | | | | | | |
| Italian | 470 | 6,940 | 6,270 | 3,050 | 2,800 | 850 | 650 | 4,750 | 8,700 | 1,370 | 3,100 | 850 | 39,980 |
| Other Prunes | 4,300 | 5,920 | 1,000 | 610 | 2,490 | 280 | 1,130 | 1,800 | 4,080 | 4,150 | ..... | ..... | 25,720 |
| Total Prunes | 4,670 | 12,860 | 7,270 | 3,660 | 5,350 | 1,130 | 1,780 | 6,610 | 12,840 | 5,320 | 3,100 | 850 | 65,700 |
| Plums | 2,910 | 5,000 | 2,850 | 340 | 1,540 | 700 | 440 | 3,380 | 4,060 | 480 | 430 | 60 | 22,300 |
| Total | 7,580 | 17,860 | 10,120 | 4,000 | 6,890 | 1,920 | 2,220 | 9,990 | 16,920 | 6,000 | 3,590 | 910 | 88,000 |
| CLARK COUNTY | | | | | | | | | | | | | |
| Italian ..... | ..... | 55 | 1,875 | ..... | ..... | ..... | ..... | 5 | 2,630 | 9,400 | 43,400 | 132,720 | 191,085 |
| Other Prunes ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 230 | ..... | ..... | 2,605 | 2,835 |
| Total Prunes ..... | ..... | 55 | 1,875 | ..... | ..... | ..... | ..... | 5 | 2,630 | 9,630 | 43,400 | 135,325 | 193,920 |
| Plums ..... | ..... | ..... | ..... | ..... | 5 | 10 | ..... | ..... | 5 | 5 | 5 | 50 | 80 |
| Total ..... | ..... | 55 | 1,875 | ..... | 5 | 10 | ..... | 5 | 2,635 | 9,635 | 43,405 | 135,375 | 194,000 |
| CHELAN COUNTY | | | | | | | | | | | | | |
| Italian | 200 | 80 | 120 | 710 | 50 | 120 | 50 | 40 | 50 | 270 | 600 | 530 | 2,880 |
| Other Prunes | 10 | ..... | ..... | ..... | 60 | 50 | 10 | ..... | 30 | 10 | 160 | 10 | 340 |
| Total Prunes | 210 | 80 | 120 | 710 | 110 | 170 | 60 | 40 | 80 | 280 | 820 | 540 | 3,220 |
| Plums | 30 | 1,650 | 1,500 | 1,600 | 430 | 40 | 20 | 250 | 80 | 10 | 90 | 90 | 5,880 |
| Total | 240 | 1,730 | 1,710 | 2,310 | 540 | 210 | 80 | 290 | 160 | 290 | 910 | 630 | 9,100 |
| DOUGLAS COUNTY | | | | | | | | | | | | | |
| Italian | 190 | 610 | 200 | 460 | 60 | 550 | 70 | ..... | 70 | 60 | 20 | 30 | 2,320 |
| Other Prunes ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 10 | ..... | 20 | 440 | 470 |
| Total Prunes | 190 | 610 | 200 | 460 | 60 | 550 | 70 | ..... | 80 | 60 | 40 | 470 | 2,790 |
| Plums | 70 | 2,320 | 1,130 | 1,320 | 30 | 190 | 60 | 10 | 240 | 10 | 30 | 700 | 6,110 |
| Total | 260 | 2,930 | 1,830 | 1,780 | 90 | 740 | 130 | 10 | 320 | 70 | 70 | 1,170 | 8,900 |
| WALLA WALLA COUNTY | | | | | | | | | | | | | |
| Italian | 1,490 | 250 | 2,490 | 2,700 | 220 | 370 | 700 | ..... | 4,500 | 3,800 | 8,920 | 8,460 | 34,300 |
| Other Prunes ..... | ..... | ..... | 250 | ..... | ..... | ..... | ..... | ..... | 500 | ..... | 230 | 920 | 2,060 |
| Total Prunes | 1,490 | 250 | 2,840 | 2,700 | 220 | 370 | 700 | ..... | 5,150 | 3,800 | 9,150 | 9,380 | 36,360 |
| Plums ..... | ..... | ..... | 400 | ..... | ..... | ..... | 130 | ..... | 10 | ..... | ..... | ..... | 540 |
| Total | 1,490 | 250 | 3,240 | 2,700 | 220 | 370 | 830 | ..... | 5,160 | 3,800 | 9,150 | 9,380 | 36,900 |
| YAKIMA COUNTY | | | | | | | | | | | | | |
| Italian | 22,710 | 38,330 | 39,820 | 10,500 | 7,710 | 5,740 | 7,170 | 11,900 | 26,880 | 15,220 | 49,500 | 21,360 | 246,840 |
| Other Prunes | 3,720 | 3,420 | 4,150 | 2,120 | 350 | 3,450 | 1,180 | 150 | 6,220 | 1,220 | 1,220 | 1,180 | 28,390 |
| Total Prunes | 26,430 | 41,750 | 33,970 | 12,620 | 8,060 | 9,190 | 8,350 | 12,050 | 33,100 | 16,440 | 50,720 | 22,540 | 275,230 |
| Plums | 690 | 7,510 | 5,920 | 8,000 | 5,130 | 3,350 | 2,400 | 1,510 | 5,460 | 6,730 | 2,350 | 720 | 49,770 |
| Total | 27,120 | 49,260 | 39,890 | 20,620 | 13,190 | 12,540 | 10,750 | 13,560 | 38,560 | 23,170 | 53,070 | 23,260 | 325,000 |
| OTHER COUNTIES | | | | | | | | | | | | | |
| Italian | 6,730 | 4,170 | 2,620 | 1,800 | 2,540 | 310 | 5,500 | 2,180 | 15,630 | 13,820 | 20,020 | 8,020 | 83,490 |
| Other Prunes ..... | ..... | 60 | 90 | 110 | ..... | 130 | 20 | 40 | 270 | 630 | 130 | 370 | 1,780 |
| Total Prunes | 6,730 | 4,230 | 2,640 | 1,970 | 2,540 | 440 | 5,610 | 2,220 | 15,900 | 14,450 | 20,150 | 8,390 | 85,270 |
| Plums | 5,820 | 250 | 5,470 | 40 | 180 | 170 | 150 | 130 | 390 | 1,220 | 560 | 1,470 | 15,830 |
| Total | 12,550 | 4,480 | 8,110 | 2,010 | 2,720 | 610 | 5,740 | 2,350 | 16,290 | 15,670 | 20,710 | 9,860 | 101,100 |
| STATE TOTAL | | | | | | | | | | | | | |
| Italian | 31,700 | 50,430 | 43,400 | 19,340 | 13,440 | 7,940 | 14,220 | 18,880 | 59,610 | 44,020 | 125,650 | 171,970 | 606,809 |
| Other Prunes | 7,930 | 9,400 | 5,520 | 2,840 | 2,900 | 3,910 | 2,340 | 2,050 | 11,170 | 6,340 | 1,770 | 5,520 | 61,590 |
| Total Prunes | 39,720 | 59,830 | 48,920 | 22,180 | 16,340 | 11,850 | 16,620 | 20,930 | 70,780 | 50,370 | 127,450 | 177,490 | 668,399 |
| Plums | 9,520 | 16,730 | 17,300 | 11,300 | 7,820 | 4,550 | 3,180 | 5,280 | 10,260 | 8,450 | 3,470 | 3,090 | 100,510 |
| Total | 49,240 | 76,560 | 66,220 | 33,480 | 23,660 | 16,400 | 19,810 | 26,210 | 81,040 | 58,720 | 130,920 | 180,580 | 768,909 |

young. About 60 percent of the other prune trees were less than 10 years old, and only 12 percent were more than 20 years of age. Heaviest plantings were made in the most recent years. Before 1930 plantings of prune trees other than Italian were almost negligible, but in the years after 1930 about one out of every eight new trees planted was of the other varieties.

In the three post-war years of 1946, 1947, and 1948 the average number of other prune trees set out per year was almost 8,000. This was in sharp contrast to the average of 2,800 trees per year surviving in 1949 from plantings in 1941-45, the average of 2,200 from plantings in 1936-40, and the average of 1,200 remaining from plantings in 1931-35.

YAKIMA COUNTY

Yakima is the most important plum and prune producing county by a wide margin, having about as many trees in 1949 as the next three leading counties combined. Over 40 percent of all the state's Italian prune trees and nearly one-half of the state's other prune and plum trees were located in Yakima County. These trees are located on irri-

Table 29.—Plums and Prunes: Percentage of Trees by Variety and by Year of Planting, Selected Counties, Washington, 1949

| County and Variety Grown | PERCENTAGE OF TREES BY YEAR OF PLANTING | | | | | | | | | | | | Trees of All Ages |
|---------------------------|---|-------|-------|-------|-------|-------|-------|-------|-----------|-----------|-----------|----------------|-------------------|
| | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940-1936 | 1935-1931 | 1930-1921 | 1920 or Before | |
| BENTON COUNTY | | | | | | | | | | | | | |
| Italian | 6.2 | 38.9 | 61.9 | 76.3 | 41.5 | 44.3 | 29.3 | 47.6 | 51.5 | 22.8 | 88.0 | 93.4 | 45.43 |
| Other Prunes | 85.4 | 33.1 | 9.9 | 15.2 | 36.1 | 74.6 | 50.9 | 18.6 | 24.1 | 69.2 | | | 29.23 |
| Total Prunes | 61.6 | 72.0 | 71.8 | 91.5 | 77.6 | 58.9 | 80.2 | 66.2 | 75.9 | 92.0 | 88.0 | 93.4 | 74.66 |
| Plums | 38.4 | 28.0 | 28.2 | 8.5 | 22.4 | 41.1 | 19.8 | 33.8 | 24.1 | 8.0 | 12.0 | 6.6 | 25.34 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| CLARK COUNTY | | | | | | | | | | | | | |
| Italian | | 100.0 | 100.0 | | | | | 100.0 | 99.9 | 97.5 | 100.0 | 98.0 | 98.00 |
| Other Prunes | | | | | | | | | | 2.4 | | 1.9 | 1.46 |
| Total Prunes | | 100.0 | 100.0 | | | | | 100.0 | 99.9 | 99.9 | 100.0 | 99.9 | 99.96 |
| Plums | | | | | 100.0 | 100.0 | | | .1 | .1 | | .1 | .94 |
| Total | | 100.0 | 100.0 | | 100.0 | 100.0 | | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| CHELAN COUNTY | | | | | | | | | | | | | |
| Italian | 83.3 | 4.6 | 7.0 | 30.7 | 9.3 | 57.2 | 62.5 | 13.8 | 31.2 | 93.1 | 72.5 | 84.1 | 31.65 |
| Other Prunes | 4.2 | | | | 11.1 | 23.8 | 12.5 | | 18.8 | 3.5 | 17.6 | 1.6 | 3.74 |
| Total Prunes | 87.5 | 4.6 | 7.0 | 30.7 | 20.4 | 81.0 | 75.0 | 13.8 | 50.0 | 96.6 | 90.1 | 85.7 | 35.39 |
| Plums | 12.5 | 95.4 | 93.0 | 69.3 | 79.6 | 19.0 | 25.0 | 86.2 | 50.0 | 3.4 | 9.9 | 14.3 | 64.61 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| DOUGLAS COUNTY | | | | | | | | | | | | | |
| Italian | 73.1 | 29.8 | 15.0 | 25.8 | 66.7 | 74.3 | 53.8 | | 21.9 | 85.7 | 28.6 | 2.6 | 26.07 |
| Other Prunes | | | | | | | | | 3.1 | | 28.6 | 27.6 | 5.28 |
| Total Prunes | 73.1 | 29.8 | 15.0 | 25.8 | 66.7 | 74.3 | 53.8 | | 25.0 | 85.7 | 57.2 | 40.2 | 31.35 |
| Plums | 26.9 | 79.2 | 85.0 | 74.2 | 33.3 | 25.7 | 46.2 | 100.0 | 75.0 | 14.3 | 42.8 | 59.8 | 68.65 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| WALLA WALLA COUNTY | | | | | | | | | | | | | |
| Italian | 100.0 | 100.0 | 76.9 | 100.0 | 100.0 | 100.0 | 85.4 | | 88.9 | 100.0 | 97.5 | 90.2 | 92.93 |
| Other Prunes | | | 10.8 | | | | | | 10.9 | | 2.5 | 9.8 | 5.69 |
| Total Prunes | 100.0 | 100.0 | 87.7 | 100.0 | 100.0 | 100.0 | 85.4 | | 99.8 | 100.0 | 100.0 | 100.0 | 98.63 |
| Plums | | | 12.3 | | | | 14.6 | | .2 | | | | 1.47 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| YAKIMA COUNTY | | | | | | | | | | | | | |
| Italian | 83.8 | 77.8 | 74.8 | 59.9 | 58.4 | 45.8 | 66.7 | 87.8 | 69.7 | 65.7 | 98.3 | 91.8 | 75.95 |
| Other Prunes | 13.7 | 7.0 | 10.4 | 10.3 | 2.7 | 27.5 | 11.0 | 1.1 | 16.1 | 5.3 | 2.3 | 5.1 | 8.74 |
| Total Prunes | 97.5 | 84.8 | 85.2 | 61.2 | 61.1 | 73.3 | 77.0 | 88.9 | 85.8 | 71.0 | 95.6 | 96.9 | 84.69 |
| Plums | 2.5 | 15.2 | 14.8 | 38.8 | 38.9 | 26.7 | 22.3 | 11.1 | 14.2 | 29.0 | 4.4 | 3.1 | 15.31 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| OTHER COUNTIES | | | | | | | | | | | | | |
| Italian | 53.6 | 93.1 | 92.3 | 92.5 | 93.4 | 50.8 | 97.4 | 92.8 | 95.0 | 88.2 | 96.7 | 81.3 | 82.58 |
| Other Prunes | | 1.3 | .2 | 5.5 | | 21.3 | .8 | 1.7 | 1.7 | 4.0 | .6 | 3.8 | 1.76 |
| Total Prunes | 53.6 | 94.4 | 92.5 | 98.0 | 93.4 | 72.1 | 97.7 | 94.5 | 97.6 | 92.2 | 97.3 | 85.1 | 84.34 |
| Plums | 46.4 | 5.6 | 67.5 | 2.0 | 6.6 | 27.9 | 2.3 | 5.5 | 2.4 | 7.8 | 2.7 | 14.9 | 15.66 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |
| STATE TOTAL | | | | | | | | | | | | | |
| Italian | 64.6 | 65.9 | 65.5 | 57.8 | 56.8 | 48.4 | 72.1 | 72.0 | 73.6 | 75.9 | 96.9 | 95.2 | 78.75 |
| Other Prunes | 16.1 | 12.3 | 8.3 | 8.5 | 12.3 | 23.8 | 11.8 | 7.8 | 13.8 | 10.6 | 1.4 | 3.1 | 8.67 |
| Total Prunes | 80.7 | 78.2 | 73.8 | 66.3 | 69.1 | 72.2 | 83.9 | 79.8 | 87.4 | 85.6 | 97.4 | 98.3 | 86.82 |
| Plums | 19.3 | 21.8 | 26.2 | 33.7 | 30.9 | 27.8 | 16.1 | 20.2 | 12.6 | 14.4 | 2.6 | 1.7 | 13.18 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |

gated land near the Yakima River, with a majority in the lower valley south of Union Gap.

Three-quarters of Yakima's plum and prune trees were Italian prunes. Fewer than 10 percent of the county's Italian prune trees were planted before 1920, with 20 percent of the plantings made during the 1920's and a slightly smaller percentage in the 1930's. Considerably

more than one-half of the county's Italian prune trees were planted in the years 1940 to 1948, and more than one-third of the total were planted in the three years 1946, 1947, and 1948. Yakima County had almost two-thirds of the state total of very young Italian prune trees, but had less than 12 percent of the trees 30 years and older.

About 9 percent of Yakima's prune

and plum trees in 1949 were prunes of varieties other than Italian. These 28,000 other prune trees were predominantly very young, only 12 percent of the total having been planted prior to 1935 and with 40 percent of the total planted in the three years 1946 to 1948.

Yakima was by far the leading county in number of plum trees standing in 1949, with a total of about 50,000 trees.

