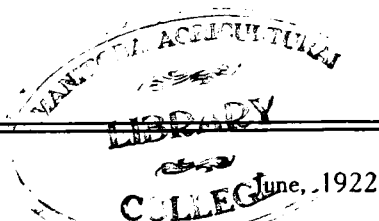


5
1) Colorado



3) Bulletin 275

2)
The Agricultural Experiment Station
OF THE
Colorado Agricultural College

ORCHARD SURVEY OF THE
WESTERN DISTRICT
OF COLORADO

By E. P. SANDSTEN and C. M. TOMPKINS



PUBLISHED BY THE EXPERIMENT STATION
FORT COLLINS, COLORADO

1922

The Colorado Agricultural College

FORT COLLINS, COLORADO

THE STATE BOARD OF AGRICULTURE

	Term Expires
HON. H. D. PARKER.....	Greeley, 1923
MRS. AGNES L. RIDDLE.....	Denver, 1923
HON. J. C. BELL.....	Montrose, 1925
HON. E. M. AMMONS.....	Denver, 1925
HON. W. I. GIFFORD.....	Durango, 1927
HON. J. B. RYAN.....	Hesperus, 1927
HON. A. A. EDWARDS, President of the Board.....	Fort Collins, 1929
HON. J. S. CALKINS.....	Westminster, 1929

GOVERNOR OLIVER H. SHOUP
PRESIDENT CHAS. A. LORY

} Ex-Officio

L. M. TAYLOR, Secretary

G. A. WEBB, Treasurer

EXECUTIVE COMMITTEE

A. A. EDWARDS, Chairman

E. M. AMMONS

H. D. PARKER

OFFICERS OF THE EXPERIMENT STATION

CHAS. A. LORY, M.S., L.L.D., D.Sc.....	President
C. P. GILLETTE, M.S., D.Sc.....	Director
L. D. CRAIN, B.M.E., M.M.E.....	Vice-Director
L. M. TAYLOR.....	Secretary
ANNA T. BAKER.....	Executive Clerk

STATION STAFF

Agricultural Division

C. P. GILLETTE, M.S., D.Sc., Director.....	Entomologist
W. P. HEADDEN, A.M., Ph.D., D.Sc.....	Chemist
G. H. GLOVER, M.S., D.V.M.....	Veterinarian
W. G. SACKETT, Ph. D.....	Bacteriologist
ALVIN KEZER, A.M.....	Agronomist
G. E. MORTON, B.S.A., M.S.....	Animal Husbandman
E. P. SANDSTEN, M.S., Ph.D.....	Horticulturist
B. O. LONGYEAR, B.S.....	Forestry Investigations
I. E. NEWSOM, B.S., D.V.S.....	Veterinary Pathologist
A. K. PEITERSSEN, B.S., M.S., Ph.D.....	Botanist
R. E. TRIMBLE, B. S.....	Assistant in Irrigation Investigations
EARL DOUGLASS, M.S.....	Assistant in Chemistry
P. K. BLINN, B.S., Rocky Ford.....	Alfalfa Investigations
MIRIAM A. PALMER, M.A.....	Delineator
J. W. ADAMS, B.S., Cheyenne Wells.....	Assistant in Agronomy, Dry Farming
RALPH L. PARSHALL, B.S.U. S. Irrigation Engineer.....	Irrigation Investigations
CHARLES R. JONES, B. S., M.S.....	Assistant in Entomology
GEORGE M. LIST, B.S.....	Assistant in Entomology
CARL ROHWER, B.S., C.E.....	Assistant in Irrigation Investigations
CHAS. I. BRAY, B.S.A., M.S.....	Assistant to Animal Husbandman
E. J. MAYNARD, B.S.A., M.S.....	Specialist in Animal Investigations
W. L. BURNETT.....	Rodent Investigations
FLOYD CROSS, D.V.M.....	Assistant Veterinary Pathologist
WM. H. FELDMAN, D.V.M.....	Assistant Veterinary Pathologist
N. E. GOLDTHWAITE, Ph.D.....	Home Economics Investigations
CAROLINE PRESTON.....	Artist
J. H. NEWTON, B.S.....	Assistant Entomologist
J. L. HOERNER, B.S.....	Assistant in Entomology
J. W. TOBISKA, B.S., M.A.....	Assistant in Chemistry
C. E. VAIL, B. S., M.A.....	Assistant in Chemistry
C. D. LEARN, B.S., M.A.....	Assistant in Botany
DAVID W. ROBERTSON, B.S., M.S.....	Assistant in Agronomy
LEON R. QUINLAN, B.S.....	Assistant in High Altitude Horticulture
I. G. KINGHORN.....	Editor
B. MILDRED BROWN, B.S.....	Assistant in Bacteriology
C. M. TOMPKINS, B.S.....	Assistant in Horticulture

Engineering Division

L. D. CRAIN, B.M.E., M.M.E., Chairman.....	Vice-Director
E. B. HOUSE, B.S., (E.E.) M.S.....	Civil and Irrigation Engineering
O. V. ADAMS, B.S.....	Testing Engineering
G. A. CUMMINGS, B.S.....	Assistant in Mechanical Engineering

ORCHARD SURVEY OF THE WESTERN DISTRICT OF COLORADO

By E. P. SANDSTEN and C. M. TOMPKINS

SURVEY OF DELTA COUNTY

Delta County is one of the older fruit-growing counties on the Western Slope. The general topography of the county is broken. It is traversed by the Gunnison and the Uncompahgre rivers; the irrigation facilities are highly developed; and the topography is broken into a large number of small mesas and benches. These are admirably adapted to the growing of all kinds of deciduous fruits. The valley of the North Fork of the Gunnison and the smaller valleys of the tributaries make up the larger portion of the fruit district. The mesas are usually small and often broken up by gulches, thus providing excellent soil and air drainage. The development and expansion of the fruit industry is limited only to the development of water for irrigation. The soil varies greatly; the better fruit soils are the red or chocolate loam soil on the north side and the gray and chocolate soils of the south side of the North Fork of the Gunnison river. These types of soil are porous and deep and the orchards are usually in a vigorous condition.

Transportation.—The county and the fruit industry are served with two lines of railroad, both of which are branch lines of the Denver and Rio Grande Western. The facilities for shipments are uniformly good. The cost of transportation is not excessive and the growers enjoy the same freight rates as the growers in the Grand Valley. Ample facilities of trackage and ice are obtainable.

Varieties Of Fruit Grown.—Practically all standard varieties of commercial fruit are grown. The apple industry, however, is the most highly developed and is subject to fewer losses than fruits like peaches, apricots, and pears. Like every new section started at a relatively early period, too many varieties are grown. The survey shows no less than forty-eight named varieties. The large majority of these varieties are unprofitable and have little commercial value. The leading varieties are the Jonathan, Winesap, Rome Beauty, Gano, Grimes Golden, Delicious, and White Winter Pearmain. It would be to the advantage of the grower if this list of varieties were further contracted. A commercial planting should not consist of more than four varieties and there should be enough of each variety to

make carload shipments possible. An orchard of a large number of varieties is more expensive to operate since these varieties bloom and ripen at different periods, making spraying and harvesting more expensive. The percentage of each variety grown is given in a table of varieties.

Condition Of the Orchards.—As one would naturally expect, many of the orchards are in a poor condition. This is especially true where the owner, in addition to raising fruit, is engaged in general farming; also where the growers have neither the training nor the ability to properly care for the orchard. On the other hand, there is a relatively large number of strictly commercial orchards and these have always been profitable. One should not forget that fruit growing is a special type of farming and requires certain training and mental attitude to make it a success. Fruit growing requires a large amount of attention to details, which to the average farmer seems to be unnecessary and tedious. The grower should look upon the tree as an individual and should treat the tree as such. It can be truly said that success or failure in fruit growing is largely dependent upon the type of man the owner is. On the whole the industry has been profitable and the right kind of grower is better off financially than the average farmer.

Delta County has been particularly favored in that it has not experienced the boom that swept over so many of our fruit-growing sections. Land values have never been inflated and consequently there has been less loss from investments in fruit land in Delta County than anywhere else in the State.

Future Outlook.—During the past ten years in fruit growing, there has been a steady liquidation in the business. The number of apple trees not only in Colorado but in other states in the union has been greatly decreased so that today there are consequently fewer fruit trees than we had eight or ten years ago. The reduction in the number of fruit trees has not been confined to one single section or a state but has been universal all over the country.

Even with a full production in all the states of the Union there should not be an over supply of fruit, with the possible exception of peaches, and it will take many years of planting before the number of trees will be equal to the number that were grown eight years ago. With these facts before us, the outlook for a fruit grower is exceedingly bright.

There is considerable need for improvements in cultural methods of general orchard practices. Too many orchards are

neglected and the owners are not obtaining the returns that they should. Pruning has not been systematic and most of the orchards have too much wood. There is, on the whole, a noticeable lack of growth vigor among the trees; especially in orchards where the trees are fifteen years old and upward. This condition results in small and poorly colored fruit. The remedy is, first, the application of fertilizers; second, the plowing under of green crops. The use of cover crops should be practiced more extensively and systematically than is done at present. Unless many of the older orchards are renovated, they will not yield much profit to the owners.

Apples.—The apple crop is the most important tree fruit grown. All the standard commercial varieties can be grown successfully. The survey shows that not less than 48 varieties are grown in the county. Three-fourths of this number should be classed as non-commercial for this county. As in other highly developed fruit districts, certain varieties do better than others and only such varieties as will attain a high degree of perfection should be grown. The others, if present in all orchards, should either be top-grafted to desirable varieties or be removed. However the total number of undesirable varieties is a relatively small percentage of the total—they are confined to the older and less important orchards.

Apricots.—The apricot is in all the fruit districts of the county. The only drawback to a greater development is the danger to the blossoms in spring from frost. On this account failure of crops is frequent. Commercial apricot culture on a large scale should not be undertaken except in a very few favorable localities. Moorpark and Early Golden are the leading varieties grown.

Cherries.—Both sour and sweet cherries can be grown. The former are adapted to practically every section of the county. Up to the present time sour cherries have not been grown extensively due to the great distance to market. But with the establishment of a big cannery at Delta the demand for sour cherries is greatly increased and the prospect for the sour-cherry industry is very promising.

Sweet cherries are grown to a considerable extent in the North Fork valley, especially in sheltered localities. On the open or extensive mesas there is considerable loss from winter injury and from late spring frosts. The area suitable to commercial planting is limited to a few favorable locations. The principal varieties of sour cherries grown are the Early Rich-

mond, Montmorency and the Morellos. The standard varieties of sweet and hybrid cherries grown are the Royal Ann, Bing, Lambert, Black Tartarian, May Duke, Royal Duke and Centennial.

There are no large cherry orchards, the planting being usually in small numbers in connection with peaches and apples.

Peaches.—Peach growing has always been of considerable commercial importance in Delta County. The crop from this district comes on the market after all other peaches are gone and on this account brings good prices. Formerly peach growing was much more extensive than now. The decline was due mostly to the planting of orchards in unfavorable localities where crop failures were frequent. The suitable areas for peach growing are limited and future planting should be confined to such areas.

The principal variety is Elberta with a few of such early varieties as Early Crawford, Alexander and Carman. The early varieties, as a rule, have not proven profitable. The general conditions of the peach orchards are uniformly good and, as a rule, better than the apple orchards.

Pears.—Pears are grown only to a very limited extent in the county. The ravages of pear blight have discouraged growers from planting new orchards and the few remaining pear orchards are not profitable. Were it not for the blight, pear growing would undoubtedly become an important industry in this district.

Plums.—Plums are not grown extensively in Delta County. The planting usually consists of a few trees for family use and only a small amount are marketed. All varieties of the European, Japanese and American varieties can be grown. Satsuma is the leading commercial plum. There is a splendid opportunity for the growing of the Satsuma plums since there is a great demand for this plum for canning and preserving.

Small Fruits and Vegetables.—Grape growing promises to become an important industry in the county. At the present time there are only small plantings but these have been very profitable. There are wonderful opportunities for development. While at the present time the American grapes are mostly grown, the hardier varieties of the European grapes can be grown successfully with a little winter protection.

Small fruits of all kinds are successfully grown without winter protection and with larger planting to permit of carload shipment the industry is bound to become both extensive and profitable.

Vegetables of all kinds are successfully grown. The large cannery is capable of taking all that is produced.

DELTA COUNTY

Delta Section includes:

California Mesa
Garnet Mesa
Gunnison Valley

Surface Creek section includes:

Tongue Creek
Bull Mesa
Antelope Mesa
Hart's Basin
Surface Creek Mesa
Cory
Austin
Arkansas Mesa
Eckert
Cedaredge
Cedar Mesa
Happy Hollow
January Mesa
Ward Creek
Kaiser Creek

Hotchkiss section includes:

Payne Mesa
Roger's Mesa
Barrow Mesa
Powell Mesa
Sunnyside Mesa
North Fork Valley
Hanson Mesa
Spurling Mesa
Grandview Mesa
Hotchkiss

Paonia section includes:

Bone Mesa
Stewart Mesa
Bell Creek Mesa
Mt. Lamborn (or German Mesa)
Pitkin Mesa
Excelsior Mesa
Minnesota Creek
North Fork Valley
Paonia
Stucker Mesa
Garvin Mesa
Bowie

CLIMATOLOGICAL DATA

The climate of Delta County is on the whole favorable for most of the deciduous tree fruits. The accompanying records of the local U. S. Weather Bureau give an idea of the general climatic conditions and are accurate so far as the local observations are concerned. The data, however, are not accurate for a number of local sites or districts due to the varied topography and as a consequence many localities have a much more favorable climate than the weather report shows and the data should be so interpreted. The survey gives more accurate information as to the range and possibilities for commercial fruit-growing than is possible for a single station. For this reason the climatological data should always be studied in connection with the data of the survey.

AGRICULTURAL EXPERIMENT STATION

I. Precipitation in the regions drained by the Colorado River, and the Rio Grande, and the San Luis Lakes: Monthly, annual, and average amounts (in inches and hundredths).

(Means)											
Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cedaredge 0.93	1.04	1.24	0.96	1.10	0.54	0.87	1.04	1.28	1.18	0.62	0.83
Delta	0.59	0.53	0.70	0.65	0.30	0.88	0.89	0.93	0.78	0.47	0.58
Paonia	1.30	1.26	1.34	1.28	1.46	0.55	1.30	1.30	1.36	0.83	1.08

Cedaredge, Delta County, Colorado—Elevation 6,175 feet.

Delta, Delta County, Colorado—Elevation 4,980 feet.

Paonia, Delta County, Colorado—Elevation 5,694 feet.

II. Average monthly and annual snowfall.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Cedaredge	18	7.9	11.0	6.2	1.7	1.2	0.0	0.0	0.0	0.3	3.0	3.7	35.0
Delta	21	4.3	3.4	1.4	0.3	T.	0.9	0.0	0.0	T.	1.0	5.1	15.5
Paonia	18	10.4	10.9	4.8	2.6	0.5	0.9	0.0	0.1	0.7	4.0	11.6	45.6

III. Average number of days with 0.01 inch or more precipitation.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Cedaredge	18	5	5	5	6	3	5	6	6	4	3	4	57
Delta	21	4	4	4	5	3	4	6	4	4	3	4	49
Paonia	18	7	7	7	6	4	6	7	5	5	4	6	70

IV. Mean temperature.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Cedaredge. 19	25.9	29.8	38.2	47.4	55.3	64.0	69.6	68.4	60.1	49.2	38.4	25.7	47.6
Delta	26	24.4	31.2	41.2	50.6	58.7	67.5	74.1	62.7	50.0	37.7	25.3	49.6
Paonia	16	25.6	31.3	39.9	48.8	56.1	65.6	69.9	61.4	50.6	39.7	26.5	48.9

V. Mean minimum temperature.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Cedaredge. 19	13.3	16.8	24.6	32.4	39.1	46.5	53.0	51.7	43.6	34.0	24.7	14.6	32.8
Delta	22	10.9	17.4	25.8	33.5	40.6	46.9	54.4	42.4	30.6	21.9	11.6	32.3
Paonia	13	14.0	20.1	27.9	34.7	40.0	47.1	53.6	46.0	35.3	28.0	16.4	34.8

VI. Mean maximum temperatures.

Length of Record

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Cedaredge. 19	38.7	42.5	52.0	62.7	71.6	81.2	86.3	84.8	76.2	64.1	52.1	39.0	62.6
Delta 22	38.4	45.4	57.3	68.7	77.2	88.5	93.8	91.1	82.6	69.2	55.7	38.7	67.2
Paonia 13	37.4	42.8	53.4	62.9	70.7	82.4	87.6	85.0	76.7	64.8	53.5	38.2	63.0

VII. Highest temperatures.

Length of Record

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Cedaredge 19	60	64	75	83	91	98	101	99	90	82	73	65	101
Delta 22	61	68	83	90	100	108	109	109	101	90	85	66	109
Paonia 13	58	63	78	84	91	94	99	96	91	83	73	61	99

VIII. Lowest temperatures.

Length of Record

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Cedaredge . 19	-23	-15	-4	9	22	27	35	38	23	8	-3	-8	-23
Delta 22	-36	-14	3	10	18	31	36	36	21	11	-1	-24	-36
Paonia 13	-28	-21	2	11	22	30	41	41	26	7	-10	-14	-28

IX. Frost data.

	Length of Record (Years)	Average date of last killing frost in spring.	Average date of first killing frost in autumn.	Latest date of killing frost in spring.	Earliest date of killing frost in autumn.
Cedaredge	18	May 16	Sept. 28	June 5	Sept. 10
Delta	23	May 11	Sept. 27	May 25	Sept. 11
Paonia	13	May 5	Oct. 13	June 2	Sept. 21

Cedaredge Station—Located in a village; surroundings mountainous; slope southward thru village from Grand Mesa. Elevation, 10,000 feet, about 10 miles north; gradient steep; conditions at station typical of district, and not specially favorable or unfavorable to frost formation.

Delta Station—Located on Garnet Mesa, about 50 feet higher than main portion of town and other bottom lands near river, which is about $\frac{1}{2}$ mile distant. Conditions less favorable to frost formation than the adjacent bottom lands.

Paonia Station—Located on the edge of town and about 50 feet above river, high mountains nearby on three sides, open southeast. Valley narrow above town, but widens out below. This upper valley of the North Fork of the Gunnison, for the most part, is more nearly immune from frost than most places, owing to the strong wind down stream that sets in shortly after sunset and continues till next forenoon. In October, 1915, station moved to a point of same elevation in a small valley several hundred yards beyond the influence of the strong wind common to the valley proper, at night. Present location subject to lower temperatures late in spring and early in fall, and not typical of the valley proper.

TOTAL ACREAGE OF DELTA COUNTY—6,867**TOTAL NO. ORCHARDS—491****AVERAGE SIZE OF ORCHARDS—13.985 ACRES.****NUMBER OF ORCHARDS IN DELTA COUNTY**

Delta District	24 orchards
Surface Creek Dist.....	123 orchards
Hotchkiss District	193 orchards
Paonia District	151 orchards

Total491 orchards

NUMBER OF APPLE TREES IN EACH ORCHARD DISTRICT

Delta District	17,257
Surface Creek District	156,654
Hotchkiss District	122,080
Paonia District	115,400

Total trees

NUMBER OF APRICOT TREES IN EACH ORCHARD DISTRICT

Delta District	44
Surface Creek District	747
Hotchkiss District	663
Paonia District	963

Total trees2,417

NUMBER OF SOUR CHERRY TREES IN EACH ORCHARD DISTRICT

Delta District.....	554
Surface Creek District	260
Hotchkiss District	670
Paonia District	1,862

Total trees

NUMBER OF SWEET CHERRY TREES IN EACH ORCHARD DISTRICT

Delta District	24
Surface Creek District	300
Hotchkiss District	258
Paonia District	3,396

Total trees

NUMBER OF PEACH TREES IN EACH ORCHARD DISTRICT

Delta District	525
Surface Creek District	16,252
Hotchkiss District	33,812
Paonia District	68,653

Total trees

NUMBER OF PEAR TREES IN EACH ORCHARD DISTRICT

Delta District	85
Surface Creek District	684
Hotchkiss District	321
Paonia District	1,583

Total trees

NUMBER OF PLUM TREES IN EACH ORCHARD DISTRICT

Delta District	None
Surface Creek District	201
Hotchkiss District	1,547
Paonia District	776

Total trees

SUMMARY

No. of Apple trees in Delta County	411,391
No. of Apricot trees in Delta County	2,417
No. of Sour Cherry trees in Delta County	3,346
No. of Sweet Cherry trees in Delta County	3,978
No. of Peach trees in Delta County	119,242
No. of Pear trees in Delta County	2,673
No. of Plum trees in Delta County	2,524
Grand total	545,571

AVERAGE SIZE OF ORCHARDS IN DELTA COUNTY

Section.	No. Orchards.	No. Acres.	Average Size
DELTA COUNTY	491	6,867.0	13.985 Acres
Delta District	24	258.5	10.771 Acres
Surface Creek District	123	2,488.0	20.228 Acres
Hotchkiss District	193	1,870.25	9.691 Acres
Paonia District	151	2,250.25	14.902 Acres

AVERAGE SIZE OF APPLE ORCHARDS IN DELTA COUNTY

Section.	No. Orchards.	No. Acres.	Average Size
DELTA COUNTY	491	5,619.25	11.444 Acres
Delta District	24	250.00	10.417 Acres
Surface Creek District	123	2,292.75	18.640 Acres
Hotchkiss District	193	1,544.50	8.003 Acres
Paonia	151	1,532.00	10.146 Acres

AVERAGE SIZE OF PEACH ORCHARDS IN DELTA COUNTY

Section.	No. Orchards.	No. Acres.	Average Size
DELTA COUNTY	491	1,125.25	2.292 Acres
Delta District	24	5.50	0.229 Acres
Surface Creek District	123	176.25	1.433 Acres
Hotchkiss District	193	294.25	1.525 Acres
Paonia District	151	649.25	4.299 Acres

CROPS GROWN IN THE ORCHARDS**DELTA**

Alfalfa	Clean	Sweet	Clover	Corn	Grass	Oats	Rye	Red Clover	Peas
7	7	6	1	2	1	..	..	..	..

HOTCHKISS

60	45	33	3	6	2	2	36	5
----	----	----	---	---	---	---	----	---

SURFACE CREEK

34	45	35	..	5	1	1	2	..
----	----	----	----	---	---	---	---	----

PAONIA

64	46	16	..	4	2	1	11	8
----	----	----	----	---	---	---	----	---

165	143	90	4	17	6	4	49	13
-----	-----	----	---	----	---	---	----	----

APPLES**NUMBER AND VARIETIES OF APPLE TREES IN DELTA COUNTY**

1. Arkansas Black	1,203	26. Ralls	2,083
2. Baldwin	555	27. Rambo	58
3. Banana	1,600	28. Red Astrachan	45
4. Ben Davis	30,755	29. Red June	1
5. Chenango	65	30. Rhode Island	12
6. Collins	10	31. Rome	74,291
7. Delicious	9,476	32. Scott Winter	100
8. Domine	15	33. Smith	230
9. Early Harvest	186	34. Stayman Winesap	2,957
10. Fameuse	154	35. Tolman	12
11. Gano	45,360	36. Utter	25
12. Grimes	7,417	37. Wagener	27
13. Haas	50	38. Walbridge	60
14. Jonathan	184,611	39. Wealthy	414
15. King David	575	40. White Pearmain	3,042
16. Lawver	361	42. Whitney (crab)	18
17. Maiden Blush	172	42. Willow	373
18. McIntosh	225	43. Winesap	38,363
19. Minkler	10	44. Wolf River	8
20. Missouri	2,185	45. Yellow Bellflower	323
21. Northern Spy	86	46. Yellow Newtown	300
22. Northwestern Greening	818	47. Yellow Transparent ..	280
23. Oldenburg	7	48. York Imperial	1,017
24. Oliver	198		
25. Paragon	1,258	Total trees	411,391

**NUMBER AND VARIETIES OF APPLE TREES GROWN IN DELTA COUNTY
AND THEIR DISTRIBUTION**

Variety.	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Totals
1. Arkansas Black		310	824	69	1,203
2. Baldwin		555	....	....	555
3. Banana		693	862	45	1,600
4. Ben Davis	2,751	11,806	10,555	5,643	30,755
5. Champion . . . . .		....	....	10	10
6. Chenango	25	40	....	....	65
7. Delicious		3,535	1,640	4,301	9,476
8. Domine . . . . .		....	15	....	15
9. Early Harvest . . . . .		....	31	155	186
10. Fameuse		45	....	109	154
11. Gano	2,974	22,088	14,846	5,452	45,360
12. Grimes	114	4,166	632	2,505	7,417
13. Haas . . . . .		....	....	50	50
14. Jonathan	6,679	73,581	49,832	54,519	184,611
15. King David		500	10	65	575
16. Lawver		158	75	128	361
17. Maiden Blush		61	11	100	172
18. McIntosh		225	....	....	225
19. Minkler . . . . .		....	....	10	10
20. Missouri	264	760	675	486	2,185
21. Northwestern Greening . .	206	471	91	50	818
22. Northern Spy		50	36	....	86
23. Oldenburg		6	....	1	7
24. Oliver		198	....	....	198
25. Paragon		987	198	73	1,258
26. Ralls	156	665	375	887	2,083
27. Rambo	8	....	....	50	58
28. Red Astrachan		45	....	....	45
29. Red June . . . . .		....	1	....	1
30. Rhode Island		12	....	....	12
31. Rome	2,120	20,375	25,034	26,762	74,291
32. Scott Winter		100	....	....	100
33. Smith		106	....	124	230
34. Stayman Winesap		1,390	862	705	2,957
35. Tolman . . . . .		....	....	12	12
36. Utter		25	....	....	25
37. Wagener	8	10	....	9	27
38. Walbridge		60	....	....	60
39. Wealthy	111	183	20	100	414
40. Whitney (crab)	18	....	....	....	18
41. White Pearmain	892	1,214	936	....	3,042
42. Willow	85	50	90	148	373
43. Winesap	816	11,474	13,662	12,411	38,363
44. Wolf River . . . . .		....	....	8	8
45. Yellow Bellflower	10	25	50	238	323
46. Yellow Newton		300	....	....	300
47. Yellow Transparent		5	150	125	280
48. York Imperial	29	380	567	50	1,017
Totals	17,257	156,654	122,080	115,400	411,391

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Summary
No. Acres	250	2,292¾	1,544½	1,532	5,619¾
No. Trees	17,257	156,654	122,080	115,400	411,391
Age 1-8 years		27,350	17,030	6,343	50,723
Age 8-12 years	4,403	75,063	51,228	33,059	163,753
Age 12-40 years	12,854	54,241	53,822	75,998	196,915
Fair Condition	12	91	63	52	218
Good Condition	8	80	46	83	217
Poor Condition	3	15	11	9	38

APRICOTS**NUMBER AND VARIETIES OF APRICOT TREES IN DELTA COUNTY**

1. Early Golden	45	5. St. Ambroise	75
2. Moorpark	1,683	Unknown	559
3. Red Masculine	31		
4. Royal	24	Total	2,417

NUMBER OF VARIETIES OF APRICOT TREES GROWN IN DELTA COUNTY AND THEIR DISTRIBUTION

Variety.	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Totals
1. Early Golden			45		45
2. Moorpark	44	519	562	558	1,683
3. Red Masculine		31			31
4. Royal			14	10	24
5. St. Ambroise				75	75
Unknown		197	42	320	559
Totals	44	747	663	963	2,417

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Summary
No. Acres		6¾	5	5¾	17½
No. Trees	44	747	663	963	2,417
Age 1-8 years		150		208	358
Age 8-12 years	9	211	595	609	1,424
Age 12-40 years	35	386	68	146	635
Fair Condition	1	12	6	8	27
Good Condition	1	9	2	4	16
Poor Condition	1	2	1	2	6

SOUR CHERRIES**NUMBER AND VARIETIES OF SOUR CHERRY TREES IN DELTA COUNTY**

1. Dyehouse	225	5. Sixteen-to-One	1,556
2. Early Richmond	684	6. Wragg	15
3. English Morello	155		
4. Montmorency	711	Total	3,346

NUMBER AND VARIETIES OF SOUR CHERRY TREES GROWN IN DELTA COUNTY AND THEIR DISTRIBUTION

Variety.	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Totals
1. Dyehouse	225	....	....	....	225
2. Early Richmond	115	153	209	207	684
3. English Morello	59	40	15	50	155
4. Montomrency	164	61	431	55	711
5. Sixteen-to-One . . . . .	....	6	....	1,550	1,556
6. Wragg . . . . .	....	....	15	....	15
Totals	554	260	670	1,862	3,346

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Summary
No. Acres	2	1	4½	14¾	22¾
No. Trees	554	260	670	1,862	3,346
Age 1-8 years	365	5	....	129	499
Age 8-12 years	84	210	440	1,709	2,443
Age 12-40 years	105	45	230	24	404
Fair Condition	6	11	15	7	39
Good Condition	1	4	1	8	14
Poor Condition . . . . .	....	....	....	....	....

SWEET CHERRIES

NUMBER AND VARIETIES OF SWEET CHERRY TREES IN DELTA COUNTY

1. Bing	1,128	6. Republican	299
2. Black Tartarian	606	7. Royal Duke	15
3. Lambert	329	8. Windsor	110
4. May Duke	57		
5. Napoleon	1,434	Total	3,978

NUMBER AND VARIETIES OF SWEET CHERRY TREES GROWN IN DELTA COUNTY AND THEIR DISTRIBUTION

Variety.	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Totals
1. Bing	24	101	132	881	1,128
2. Black Tartarian . . . . .	....	46	....	560	606
3. Lambert . . . . .	....	47	....	282	329
4. May Duke . . . . .	....	2	30	25	57
5. Napoleon . . . . .	....	73	98	1,263	1,434
6. Republican . . . . .	....	21	3	275	299
7. Royal Duke . . . . .	....	....	5	10	15
8. Windsor . . . . .	....	10	....	100	110
Totals	24	300	258	3,396	3,978

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Summary
No. Acres . . . . .	....	2¾	1½	29	32¾
No. Trees	24	300	258	3,396	3,978
Age 1-8 years . . . . .	....	15	....	956	971
Age 8-12 years	12	258	214	2,265	2,776
Age 12-40 years	12	....	44	175	231
Fair Condition	1	9	10	12	32
Good Condition	1	3	3	16	23
Poor Condition	1	....	....	....	1

PEACHES

NUMBER AND VARIETIES OF PEACH TREES IN DELTA COUNTY

1. Alexander	915	6. Triumph	20
2. Carman	520	7. White Cling	15
3. Early Crawford	1,355	Unknown	15
4. Elberta	116,265		
5. Mountain Rose	145	Total	119,242

NUMBER AND VARIETIES OF PEACH TREES GROWN IN DELTA COUNTY
AND THEIR DISTRIBUTION

Variety.	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Totals
1. Alexander		915			915
2. Carman				520	520
3. Early Crawford	119	222	319	695	1,355
4. Elberta	400	15,099	33,358	67,408	116,265
5. Mountain Rose			125	20	145
6. Triumph			10	10	20
7. White Cling	6	1			7
Unknown		15			15
Totals	525	16,252	33,812	68,653	119,242

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Summary
No. Acres	5½	176¼	294¼	649¼	1125¼
No. Trees	525	16,252	33,812	68,653	119,242
Age 1-8 years		1,009	1,535	3,325	5,869
Age 8-12 years	25	10,706	20,460	26,038	57,279
Age 12-40 years	500	4,537	11,817	39,240	56,094
Fair Condition		42	39	47	128
Good Condition	2	19	24	50	95
Poor Condition		5	6	14	26

PEARS

NUMBER AND VARIETIES OF PEAR TREES IN DELTA COUNTY

1. Anjou	377	6. Seckel	2
2. Bartlett	1,699	7. Winter Nelis	12
3. Comice	50	Unknown	50
4. Flemish	33		
5. Kieffer	450	Total	2,673

NUMBER AND VARIETIES OF PEAR TREES GROWN IN DELTA COUNTY
AND THEIR DISTRIBUTION

Variety.	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Totals
1. Anjou	10	62	35	270	377
2. Bartlett	10	399	132	1,158	1,699
3. Comice			50		50
4. Flemish	10	18		5	33
5. Kieffer	55	205	40	150	450
6. Seckel			2		2
7. Winter Nelis			12		12
Unknown			50		50
Totals	85	684	321	1,583	2,673

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Summary
No. Acres	1	7½	9	17¼	34¾
No. Trees	85	684	321	1,583	2,763
Age 1-8 years		50	100	303	453
Age 8-12 years		532	....	370	902
Age 12-40 years	85	102	221	910	1,318
Fair Condition	3	5	5	4	17
Good Condition		4	1	10	15
Poor Condition		2	1	1	4

PLUMS**NUMEER AND VARIETIES OF PLUM TREES IN DELTA COUNTY**

1. Agen	965	8. Reine Claude	149
2. Damson	165	9. Satsuma	141
3. De Soto	3	10. Sugar	12
4. Italian Prune	900	11. Washington	20
5. Peach	87	12. Wild Goose	55
6. Pond	3	13. Yellow Egg	21
7. Red Apricot	3		
		Total	2,524

NUMBER AND VARIETIES OF PLUM TREES GROWN IN DELTA COUNTY AND THEIR DISTRIBUTION

Variety.	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Totals
1. Agen		5	960	....	965
2. Damson		26	136	3	165
3. De Soto			3	....	3
4. Italian Prune		50	250	600	900
5. Peach		10	77	....	87
6. Pond			3	....	3
7. Red Apricot			3	....	3
8. Reine Claude		49	50	50	149
9. Satsuma		56	12	73	141
10. Sugar			12	....	12
11. Washington			20	....	20
12. Wild Goose		5	15	35	55
13. Yellow Egg			6	15	21
Totals		201	1,547	776	2,524

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Delta.	Surface Creek.	Hotchkiss.	Paonia.	Summary
No. Acres		1½	11½	2¼	15¼
No. Trees		201	1,547	776	2,524
Age 1-8 years		6	....	309	306
Age 8-12 years		78	830	381	1,289
Age 12-40 years		117	717	95	929
Fair Condition		4	10	3	17
Good Condition		1	2	3	6
Poor Condition		2	1	....	3

TABLE I—NUMBER OF FRUIT TREES IN EACH DISTRICT

District	Apples	Apricots	Cherries	Peaches	Pears	Plums	Dist.Tot.
Delta	17,257	44	578	525	85	....	18,489
Surface Creek	156,654	747	560	16,252	684	201	175,093
Hotchkiss	122,980	663	928	33,812	321	1,547	159,351
Paonia	115,400	963	5,258	68,653	1,583	776	192,633
Totals	411,391	2,417	7,324	119,242	2,673	2,524	545,571

TABLE I-a—DISTRIBUTION (IN PERCENTAGES) OF TOTAL NUMBER OF TREES OF EACH FRUIT IN ENTIRE COUNTY BY DISTRICTS

District	Apples	Apricots	Cherries	Peaches	Pears	Plums	Entire Co. Tot.
Delta	4.1	2.0	7.9	0.4	2.5	0.0	3.3
Surface Creek	37.7	31.8	7.6	13.6	20.1	10.6	31.8
Hotchkiss	30.3	30.1	12.6	28.0	26.4	81.2	29.7
Paonia	27.9	36.1	71.9	58.0	51.0	8.2	35.2
Entire Co.	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE II—NUMBER OF ACRES OF EACH FRUIT FOR EACH DISTRICT IN ENTIRE COUNTY

	Delta	Surface Creek	Hotchkiss	Paonia
Apples	250.00	2,292.75	1,544.50	1,532.00
Apricots . . . . .	....	6.75	5.00	5.75
Pears	1.00	7.50	9.00	17.25
Peaches	5.50	176.25	294.25	649.25
Plums . . . . .	....	1.50	11.50	2.25
Sour Cherries	2.00	1.00	4.50	14.75
Sweet Cherries . . . . .	....	2.25	1.50	29.00
Totals, All Fruits	258.50	2,488.00	1,870.25	2,250.25

TABLE II-a—NUMBER OF ACRES OF EACH FRUIT OF BEARING AGE FOR EACH DISTRICT

	Delta	Surface Creek	Hotchkiss	Paonia
Apples	250.00	1,747.35	1,471.13	1,479.94
Apricots . . . . .	....	5.39	5.00	5.75
Pears	1.00	6.95	5.17	14.39
Peaches	5.50	152.66	281.02	621.09
Plums . . . . .	....	1.45	11.50	2.25
Sour Cherries	0.69	0.98	4.50	14.56
Sweet Cherries . . . . .	....	1.90	1.50	20.91
Totals, All Fruits	257.19	1,916.68	1,779.82	2,158.89

TABLE III—SIX PRINCIPAL VARIETIES OF APPLES, SHOWING PERCENT-AGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co
Jonathan	38.9	45.7	40.7	47.2	44.4
Rome	12.2	12.9	20.4	23.1	17.8
Gano	17.0	14.0	10.8	4.5	10.4
Winesap	4.7	7.2	11.1	10.7	9.2
Ben Davis	15.6	7.3	8.6	4.8	7.3
Delicious . . . . .	....	2.2	1.3	3.7	2.2
All others (42 var.)	11.6	10.7	7.1	6.0	8.7
Totals	100.0	100.0	100.0	100.0	100.0

TABLE IV—THREE PRINCIPAL VARIETIES OF PEARS, SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
Bartlett	11.7	58.8	40.6	70.9	62.9
Kieffer	64.7	29.4	12.5	9.3	16.6
Anjou	11.7	8.8	10.9	16.6	13.7
All others (4 var.)	11.9	3.0	36.0	3.2	6.8
Totals	100.0	100.0	100.0	100.0	100.0

TABLE V—SIX PRINCIPAL VARIETIES OF PEACHES SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
Elberta	76.9	92.8	98.6	92.2	97.5
Early Crawford	22.0	1.3	0.9	1.0	1.1
Alexander . . . . .	....	5.6	....	....	0.7
Carman . . . . .	....	....	....	0.7	0.4
Mountain Rose . . . . .	....	....	0.3	....	0.1
Triumph . . . . .	....	....	....	....	....
All others	1.1	0.3	0.2	0.1	0.2
Totals	100.0	100.0	100.0	100.0	100.0

TABLE VI—SIX PRINCIPAL VARIETIES OF PLUMS AND PRUNES, SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
Agen		2.5	61.9	....	37.8
Italian Prune		25.0	16.1	76.9	35.4
Damson		12.5	7.1	0.4	5.9
Satsuma		25.0	0.7	8.9	5.5
Reine Claude		12.5	3.2	6.4	4.9
Peach		5.0	5.7	....	3.9
All others (7 var.)		17.5	5.3	7.4	6.6
Totals		100.0	100.0	100.0	100.0

TABLE VII—FOUR PRINCIPAL VARIETIES OF APRICOTS, SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
Moorpark	100.0	69.3	84.8	58.3	70.0
St. Ambrose . . . . .	....	26.6	6.1	5.2	12.1
Early Golden . . . . .	....	....	....	19.8	7.9
Red Mascaline . . . . .	....	....	....	8.3	3.1
All others (2 var.) . . . . .	....	4.1	9.1	8.4	6.9
Totals	100.0	100.0	100.0	100.0	100.0

TABLE VIII—SIX PRINCIPAL VARIETIES OF CHERRIES, SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
Sixteen-to-One . . . . .	....	1.1	....	29.2	21.2
Napoleon . . . . .	....	8.9	1.0	21.3	17.5
Bing	4.3	17.8	1.2	16.6	15.5
Montmorency	27.6	10.9	40.0	1.1	9.6
Early Richmond	20.7	26.8	20.0	3.8	9.3
Black Tartarian . . . . .	....	8.0	....	10.6	8.2
All others (8 var.)	47.4	26.5	37.8	17.4	18.9
Totals	100.0	100.0	100.0	100.0	100.0

TABLE IX—NUMBER OF APPLE TREES OF EACH DISTRICT AND OF ENTIRE COUNTY BY AGE CLASS

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years		27,350	17,030	6,343	50,723
8-12 years	4,403	74,063	51,228	33,059	163,753
12-40 years	12,854	54,241	53,822	75,998	196,915
Totals	17,257	156,654	122,080	115,400	411,391

TABLE IX-a—PERCENTAGE OF APPLE TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years		53.7	33.6	12.7	100.0
8-12 years	2.6	44.7	32.8	19.9	100.0
12-40 years	6.4	27.4	27.2	39.0	100.0

TABLE IX-b—PERCENTAGE OF APPLE TREES OF EACH DISTRICT WITH RESPECT TO AGE

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years		17.3	13.5	5.4	12.1
8-12 years	25.4	47.9	43.7	28.5	40.3
12-40 years	74.6	34.8	42.8	66.1	47.6
Totals	100.0	100.0	100.0	100.0	100.0

TABLE X—NUMBER OF PEAR TREES OF EACH DISTRICT AND OF ENTIRE COUNTY BY AGE CLASS

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years		50	100	303	453
8-12 years		532	....	370	902
12-40 years	85	102	221	910	1,318
Totals	85	684	321	1,583	2,673

TABLE X-a—PERCENTAGE OF PEAR TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years		6.8	52.1	41.1	100.0
8-12 years		58.8	....	41.2	100.0
12-40 years	4.4	5.5	27.7	62.4	100.0

TABLE X-b—PERCENTAGE OF PEAR TREES OF EACH DISTRICT WITH RESPECT TO AGE

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years		7.4	42.7	16.6	20.6
8-12 years		77.9	....	20.6	26.5
12-40 years	100.0	14.7	57.3	62.8	52.9
Totals	100.0	100.0	100.0	100.0	100.0

TABLE XI—NUMBER OF PEACH TREES OF EACH DISTRICT AND OF ENTIRE COUNTY BY AGE CLASS

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years		1,009	1,535	3,325	5,869
8-12 years	25	10,706	20,460	26,088	57,279
12-40 years	500	4,537	11,817	39,240	56,094
Totals	525	16,252	33,812	68,653	119,242

TABLE XI-a—PERCENTAGE OF PEACH TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years .....	.....	17.2	25.8	57.0	100.0
8-12 years .....	.....	17.3	35.3	47.4	100.0
12-40 years	0.9	8.0	20.4	70.7	100.0

TABLE XI-b—PERCENTAGE OF PEACH TREES OF EACH DISTRICT WITH RESPECT TO AGE

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years .....	.....	6.1	4.5	4.8	4.8
8-12 years	4.7	65.6	61.1	38.4	48.3
12-40 years	95.3	28.3	34.4	56.8	46.9
Totals	100.0	100.0	100.0	100.0	100.0

TABLE XII—PERCENTAGE OF APRICOT TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years .....	.....	100.0	....	....	100.0
8-12 years	0.6	14.2	42.8	42.4	100.0
12-40 years	6.2	60.9	10.9	22.0	100.0

TABLE XIII—PERCENTAGE OF PLUM TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years		100.0	....	....	100.0
8-12 years		7.6	79.1	13.3	100.0
12-40 years		12.9	77.4	9.7	100.0

TABLE XIV—PERCENTAGE OF SOUR CHERRY TREES OF EACH AGE CLASS IN EACH DISTRICT

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years	74.0	1.0	....	25.0	100.0
8-12 years	3.2	8.4	17.6	70.8	100.0
12-40 years	25.0	12.5	57.5	5.0	100.0

TABLE XV—PERCENTAGE OF SWEET CHERRY TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Delta	Surface Creek	Hotchkiss	Paonia	Entire Co.
1-8 years .....	.....	1.5	....	98.5	100.0
8-12 years	0.4	10.6	8.0	81.0	100.0
12-40 years	5.2	....	17.4	77.4	100.0

GRAND TOTALS—DELTA COUNTY

Number of acres in fruit trees	6,867
Number of fruit trees of all kinds	545,571
Number of orchards	491

CONDITION OF ORCHARDS

Fair	248
Good	200
Poor	43

DISTRIBUTION OF TREES BY**AGE CLASS**

Age 1-8 years	59,179
Age 8-12 years	229,866
Age 12-40 years	256,526

Total 491

SURVEY OF MONTROSE COUNTY

The eastern part of Montrose County is traversed by the Uncompaghre River which furnishes water for irrigation. The river valley is devoted to general farm crops, with few commercial orchards. The orchard districts are situated on the adjacent mesas considerably elevated above the valley proper. These mesas have, as a rule, good soil and air drainage, and the soil is well adapted to tree fruits, particularly apples. The mesas are more extensive and consequently more exposed than those of Delta County. The elevation is, in many cases, too high and the winter too severe for many varieties of orchard fruits.

The principal fruit crop is apples, followed by peaches, plums and sour cherries. The facilities for irrigation are the very best and an abundance of water is always available. The transportation facilities are also good, being served with a broad gauge railroad which connects with the main line of the Denver and Rio Grande Western at Grand Junction.

The climatic conditions are more severe than in Delta and Mesa counties. This is due to the greater elevation and to the great expanse of level mesa land.

The important industry will always be general farming. Only in a few favorable localities will commercial fruit-growing be profitable. There are a number of fine commercial orchards of considerable size which compare favorably with any in the State, both in the way of production and in up-to-date management. There are also a large number of neglected orchards which indicate both careless management and poor production.

The extensive mesa lands and the high elevation make destructive spring frosts frequent, though the favorably located orchards are relatively free from destructive spring frosts.

There is a considerable number of plum trees in the county and one orchard in particular is growing a considerable quantity of prunes which have been dried on the place. It is doubtful whether the prune industry will be profitable as a commercial industry in competition with more favorably located districts. The plum trees are usually short lived and, in addition, subject to winter injury.

Peaches are grown to some extent but the crop is too uncertain, due to winter injury to the trees and late spring frosts.

Sour cherries can be grown successfully and more extensive planting should be encouraged. Sweet and hybrid cherries can be grown only in very favorable localities and extensive plantings should not be undertaken.

It would be wrong to say that the fruit growing has reached its highest point in the county, and that the industry is on the decline. The decline is the result of the natural readjustment after a rapid development, during which lands unsuited to fruit trees were planted. A better knowledge of local conditions will undoubtedly reveal considerable acreage better adapted to fruit trees, than many of the existing orchards.

MONTROSE COUNTY

Spring Creek Mesa

Uncompahgre Valley district includes:

Uncompahgre Valley at Montrose

Uncompahgre Valley at Uncompahgre

Olathe District includes:

North Mesa

Ash Mesa

California Mesa

CLIMATOLOGICAL DATA

The accompanying tables give an accurate idea of the relation of climate to fruit growing in Montrose County. The city of Montrose has a representative climate of the fruit-growing area and, with few exceptions such as especially favorable exposure and air drainage, should furnish a reliable guide to prospective settlers.

I. Precipitation in the regions drained by the Colorado River, the Rio Grande and the San Luis Lakes: Monthly, annual, and average amounts (in inches and hundredths.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual	Average
Montrose	0.77	0.66	0.80	1.02	0.83	0.41	0.85	1.34	0.98	0.96	0.52	0.75	9.89	1885-1917

Montrose, Montrose County, Colorado—Elevation, 5,811 feet.

II. Average monthly and annual snowfall.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Montrose	27	7.3	6.1	5.3	1.7	0.4	0.0	0.0	0.2	0.8	2.6	8.2	32.6

III. Average number of days with 0.01 inch or more precipitation.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Montrose	27	6	5	6	5	3	6	8	5	5	4	5	64

IV. Mean temperatures.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Montrose	24	24.3	31.3	39.8	47.9	55.2	64.6	67.9	60.6	48.6	36.8	26.1	47.8

V. Mean minimum temperatures.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Montrose	24	21.1	19.4	27.4	34.0	40.8	48.1	54.3	44.7	33.3	23.1	13.9	33.6

VI. Mean maximum temperatures.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Montrose	24	36.5	43.5	53.3	62.2	70.5	81.2	83.9	76.6	64.4	50.8	38.4	62.3

VII. Highest temperatures.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Montrose	24	62	70	83	84	92	100	98	91	85	74	63	100

VIII. Lowest temperatures.

Length of Record

(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Montrose	24	-25	-27	-5	11	17	28	40	37	21	-18	-17	-27

IX. Frost data.

	Length of Record (Years)	Average date of last killing frost in spring.	Average date of first killing frost in autumn.	Latest date of killing frost in spring.	Earliest date of killing frost in autumn.
Montrose	25	May 7	Sept 30	June 8	Sept. 14

Station in a small city in a broad valley practically surrounded by mesas and hills. Conditions typical of valley proper, and more favorable to frost than the adjacent mesas.

**NUMBER OF ORCHARDS IN
MONTROSE COUNTY**

Spring Creek Mesa	33
Uncompahgre Valley	31
Olathe	17

Total

**NUMBER OF APPLE TREES IN
IN EACH ORCHARD DISTRICT**

Spring Creek Mesa	33,716
Uncompahgre Valley	18,421
Olathe	9,176

Total trees

**NUMBER OF APRICOT TREES IN
IN EACH ORCHARD DISTRICT**

Spring Creek Mesa	300
Uncompahgre Valley	222
Olathe	233

Total trees

**NUMBER OF SOUR CHERRY
TREES IN EACH ORCHARD
DISTRICT**

Spring Creek Mesa	575
Uncompahgre Valley	215
Olathe	77

Total trees

**NUMBER OF SWEET CHERRY
TREES IN EACH ORCHARD
DISTRICT**

Spring Creek Mesa	108
Uncompahgre Valley	24
Olathe	25

Total trees

**NUMBER OF PEACH TREES IN
EACH ORCHARD DISTRICT**

Spring Creek Mesa	1,125
Uncompahgre Valley	726
Olathe	1,411

Total trees

**NUMBER OF PEAR TREES IN
EACH ORCHARD DISTRICT**

Spring Creek Mesa	..
Uncompahgre Valley	52
Olathe	265

Total trees

**NUMBER OF PLUM TREES IN
EACH ORCHARD DISTRICT**

Spring Creek Mesa	900
Uncompahgre Valley	39
Olathe	5

Total trees

SUMMARY

No. of apples trees in Montrose county	61,313
No. of apricot trees in Montrose county	755
No. of sour cherry trees in Montrose county	867
No. of sweet cherry trees in Montrose county	157
No. of peach trees in Montrose county	3,262
No. of pear trees in Montrose county	317
No. of plum trees in Montrose county	944

Grand total

AVERAGE SIZE OF ORCHARDS—MONTROSE COUNTY

Section	No. Orchards	No. Acres	Average Size
MONTROSE COUNTY	81	984.0	12.148
Spring Creek Mesa	33	532.5	16.136
Uncompahgre Valley	31	263.5	8.530
Olathe	17	188.0	11.058

AVERAGE SIZE OF APPLE ORCHARDS—MONTROSE COUNTY

Section	No. Orchards	No. Acres	Average Size
MONTROSE COUNTY	80	929.5	11.618
Spring Creek Mesa	32	499.0	15.593
Uncompahgre Valley	31	252.5	8.145
Olathe	17	178.0	10.479

AVERAGE SIZE OF PEACH ORCHARDS—MONTROSE COUNTY

Section	No. Orchards	No. Acres	Average Size
MONTROSE COUNTY	18	29.0	1.611
Spring Creek Mesa	6	13.5	2.250
Uncompahgre Valley	5	7.5	1.500
Olathe	7	8.0	1.143

CROPS GROWN IN THE ORCHARDS

SPRING CREEK MESA

Clean	Alfalfa	Potatoes	Sweet Clover	Grass	Red Clover	Wheat	Barley
10	2	2	5	1	3	1	9

UNCOMPAHGRE VALLEY

8	14	..	3	1	2	2	1
---	----	----	---	---	---	---	---

OLATHE

8	7	..	..	..	1	1	..
26	22	2	8	2	6	4	10

APPLES

NUMBER AND VARIETIES OF APPLE TREES IN MONTROSE COUNTY

1. American	6	27. Rambo	50
2. Arkansas Black	414	28. Red Astrachan	180
3. Baldwin	100	29. Red June	17
4. Ben Davis	10,116	30. Rhode Island	60
5. Chenango	40	31. Rome	2,142
6. Delicious	1,128	32. Scott Winter	20
7. Early Harvest	428	33. Sheepnose	62
8. Fameuse	54	34. Smith	25
9. Gano	4,174	35. Stark	300
10. Grimes	255	36. Stayman Winesap	384
11. Iowa Blush	15	37. Tolman	5
12. Jonathan	21,956	38. Utter	305
13. King David	450	39. Wagener	275
14. Lawver	40	40. Walbridge	585
15. Maiden Blush	40	41. Wealthy	283
16. Mann	45	42. Westfield	6
17. McIntosh	145	43. White Pearmain	416
18. McMahon	15	44. Willow	47
19. Minkler	39	45. Winesap	8,810
20. Missouri	253	46. Wolf River	46
21. Northern Spy	405	47. Yellow Bellflower	115
22. Northwestern Greening	200	48. Yellow Newtown	12
23. Oldenburg	112	49. Yellow Transparent	987
24. Oliver	100	50. York Imperial	1,895
25. Paragon	1,410	Unknown	65
26. Ralls	2,290		
		Total	61,313

**NUMBER AND VARIETIES OF APPLE TREES GROWN IN MONTROSE
COUNTY AND THEIR DISTRIBUTION**

Variety.	Spring Creek Mesa.	Uncompahgre Valley.	Olathe.	Totals
1. American . . . . .	....	\$	...	6
2. Arkansas Black . . . . .	....	164	250	414
3. Baldwin	50	50	....	100
4. Ben Davis	6,081	2,560	1,475	10,116
5. Chenango . . . . .	....	40	....	40
6. Delicious	595	8	525	1,128
7. Early Harvest	10	389	29	428
8. Fameuse	10	24	20	54
9. Gano	2,430	1,225	519	4,174
10. Grimes	80	100	75	255
11. Iowa Blush . . . . .	....	....	15	15
12. Jonathan	11,815	7,668	2,473	21,956
13. King David	100	350	....	450
14. Lawver . . . . .	....	40	....	40
15. Maiden Blush	30	10	....	40
16. Mann	25	20	....	45
17. McIntosh	80	65	....	145
18. McMahon . . . . .	....	5	10	15
19. Minkler . . . . .	....	30	....	30
20. Missouri	200	53	....	253
21. Northern Spy	345	60	....	405
22. Northwestern Greening	200	....	....	200
23. Oldenburg . . . . .	....	96	16	112
24. Oliver	100	....	....	100
25. Paragon	1,000	410	....	1,410
26. Ralls	435	1,255	600	2,295
27. Rambo	10	40	....	50
28. Red Astrachan . . . . .	....	174	6	180
29. Red June . . . . .	....	17	....	17
30. Rhode Island . . . . .	....	60	....	60
31. Rome	190	975	977	2,142
32. Scott Winter . . . . .	....	20	....	20
33. Sheepnose . . . . .	....	2	60	62
34. Smith . . . . .	....	25	....	25
35. Stark	300	....	....	300
36. Stayman Winesap	300	4	80	384
37. Tolman . . . . .	....	5	....	5
38. Utter . . . . .	....	5	300	305
39. Wagener	95	130	50	275
40. Walbridge	10	75	500	585
41. Wealthy	105	70	105	283
42. Westfield . . . . .	....	6	....	6
43. White Pearmain	170	240	6	416
44. Willow	45	2	....	47
45. Winesap	6,505	1,537	768	8,810
46. Wolf River . . . . .	....	36	10	46
47. Yellow Bellflower	100	15	....	115
48. Yellow Newtown . . . . .	....	12	....	12
49. Yellow Transparent	720	188	79	987
50. York Imperial	1,580	90	225	1,895
Unknown . . . . .	....	65	....	65
Totals	33,716	18,421	9,176	61,313

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Spring Creek	Uncompahgre	Olathe.	Summary
	Mesa.	Valley.		
No. Acres	499	252½	176	927½
No. Trees	33,716	18,421	9,176	61,313
Age 1-8 years	1,410	930	1,106	3,446
Age 8-12 years	4,985	3,351	2,980	11,316
Age 12-40 years	27,321	14,140	5,090	46,551
Fair Condition	13	27	10	50
Good Condition	18	4	5	27
Poor Condition	1	....	2	3

APRICOTS**NUMBER AND VARIETIES OF APRICOT TREES IN MONTROSE COUNTY**

1. Moorpark	587	Unknown	2
2. Peach	154		
3. Royal	12	Total	755

NUMBER AND VARIETIES OF APRICOT TREES GROWN IN MONTROSE COUNTY AND THEIR DISTRIBUTION

Variety.	Spring Creek	Uncompahgre	Olathe.	Totals
	Mesa.	Valley.		
1. Moorpark	300	116	171	587
2. Peach		104	50	154
3. Royal .....		....	12	12
Unknown		2	....	2
Totals	300	222	233	755

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Spring Creek	Uncompahgre	Olathe.	Summary
	Mesa.	Valley.		
No. Acres	3	2	2	7
No. Trees	300	222	233	755
Age 1-8 years .....	....	4	....	4
Age 8-12 years	300	5	16	321
Age 12-40 years .....	....	213	217	430
Fair Condition .....	....	5	4	9
Good Condition	1	....	....	1
Poor Condition .....	....	....	....	....

SOUR CHERRIES**NUMBER AND VARIETIES OF SOUR CHERRY TREES IN MONTROSE COUNTY**

1. Early Richmond	763	4. Wragg	3
2. English Morello	6		
3. Montmorency	95	Total	867

NUMBER AND VARIETIES OF SOUR CHERRY TREES GROWN IN MONTROSE COUNTY AND THEIR DISTRIBUTION

Variety.	Spring Creek	Uncompahgre	Olathe.	Totals
	Mesa.	Valley.		
1. Early Richmond	550	136	77	763
2. English Morello .....	....	6	....	6
3. Montmorency	25	70	....	95
4. Wragg .....	....	3	....	3
Totals	575	215	77	867

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Spring Creek Mesa.	Uncompahgre Valley.	Olathe.	Summary
No. Acres	6	1½	....	7½
No. Trees	575	215	77	867
Age 1-8 years .....	....	14	12	26
Age 8-12 years	75	....	8	83
Age 12-40 years	500	201	57	758
Fair Condition .....	....	7	3	10
Good Condition	2	....	....	2
Poor Condition .....	....	....	1	1

SWEET CHERRIES**NUMBER AND VARIETIES OF SWEET CHERRY TREES IN MONTROSE COUNTY**

1. Bing	104	3. Ox Heart	50
2. Napoleon	3		
Total			157

NUMBER AND VARIETIES OF SWEET CHERRY TREES GROWN IN MONTROSE COUNTY AND THEIR DISTRIBUTION

Variety.	Spring Creek Mesa.	Uncompahgre Valley.	Olathe.	Totals
1. Bing	58	21	25	104
2. Napoleon .....	....	3	....	3
3. Ox Heart	50	....	....	50
Totals	108	24	25	157

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Spring Creek Mesa.	Uncompahgre Valley.	Olathe.	Summary
No. Acres	1	....	....	1
No. Trees	108	24	25	157
Age 1-8 years .....	....	6	....	6
Age 8-12 years	100	7	....	107
Age 12-40 years	8	11	25	44
Fair Condition	1	4	....	5
Good Condition	1	....	....	1
Poor Condition .....	....	....	1	1

PEACHES**NUMBER AND VARIETIES OF PEACH TREES IN MONTROSE COUNTY**

1. Champion	5	4. Hale Early	44
2. Early Crawford	34		
3. Elberta	3,179	Total	3,262

NUMBER AND VARIETIES OF PEACH TREES GROWN IN MONTROSE COUNTY AND THEIR DISTRIBUTION

Variety.	Spring Creek Mesa.	Uncompahgre Valley.	Olathe.	Totals
1. Champion .....	....	....	5	5
2. Early Crawford .....	....	3	31	34
3. Elberta	1,125	723	1,331	3,179
4. Hale Early .....	....	....	44	44
Totals	1,125	726	1,411	3,262

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Spring Creek Mesa.	Uncompahgre Valley.	Olathe.	Summary
No. Acres	13½	7½	8	29
No. Trees	1,125	726	1,411	3,262
Age 1-8 years .....	....	....	144	144
Age 8-12 years	400	680	700	1,780
Age 12-40 years	725	46	567	1,338
Fair Condition	1	5	5	11
Good Condition	4	....	2	6
Poor Condition	1	....	....	1

PEARS**NUMBER AND VARIETIES OF PEAR TREES IN MONTROSE COUNTY**

1. Anjou	6	4. Seckel	10
2. Bartlett	101		
3. Kieffer	200	Total	317

NUMBER AND VARIETIES OF PEAR TREES GROWN IN MONTROSE COUNTY AND THEIR DISTRIBUTION

Variety.	Spring Creek Mesa.	Uncompahgre Valley.	Olathe.	Totals
1. Anjou		6	....	6
2. Bartlett		36	65	101
3. Kieffer			200	200
4. Seckel		10	....	10
Totals		52	265	317

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Spring Creek Mesa.	Uncompahgre Valley.	Olathe.	Summary
No. Acres			2	2
No. Trees		52	265	317
Age 1-8 years		12	....	12
Age 8-12 years			200	200
Age 12-40 years		40	65	195
Fair Condition		3	3	6
Good Condition				
Poor Condition				

PLUMS**NUMBER AND VARIETIES OF PLUM TREES IN MONTROSE COUNTY**

1. Abundance	305	6. Shipper	5
2. Bradshaw	5	7. Wild Goose	5
3. Damson	302	Unknown	12
4. Reine Claude	10		
5. Satsuma	300	Total	944

**NUMBER AND VARIETIES OF PLUM TREES GROWN IN MONTROSE
COUNTY AND THEIR DISTRIBUTION**

Variety.	Spring Creek Mesa.	Uncompahgre Valley.	Olathe.	Totals
1. Abundance	300	5	....	305
2. Bradshaw . . . . .	....	5	....	5
3. Damson	300	2	....	302
4. Reine Claude . . . . .	....	5	5	10
5. Satsuma	300	....	....	300
6. Shipper . . . . .	....	5	....	5
7. Wild Goose . . . . .	....	5	....	5
Unknown . . . . .	....	12	....	12
Totals	900	39	5	944

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Spring Creek Mesa.	Uncompahgre Valley.	Olathe.	Summary
No. Acres	10	....	....	10
No. Trees	900	39	5	944
Age 1-8 years . . . . .	....	....	....	....
Age 8-12 years	900	....	....	900
Age 12-40 years . . . . .	....	39	5	44
Fair Condition	1	1	1	3
Good Condition	1	....	....	1
Poor Condition . . . . .	....	....	....	....

TABLE I—NUMBER OF FRUIT TREES IN EACH DISTRICT

District	Apples	Apricots	Cherries	Peaches	Pears	Plums	Dist. Tot.
Spring Creek Mesa	33,716	300	683	1,125	....	900	36,724
Uncompahgre Valley	18,421	222	239	726	52	39	19,699
Olathe	9,176	233	102	1,411	265	5	11,192
Entire County	61,313	755	1024	3,262	317	944	67,615

**TABLE I-a—DISTRIBUTION (IN PERCENTAGES) OF TOTAL NUMBER OF
TREES OF EACH FRUIT IN ENTIRE COUNTY BY DISTRICTS**

District	Apples	Apricots	Cherries	Peaches	Pears	Plums	Entire County
Spring Creek Mesa	54.8	40.0	68.3	33.3	....	94.7	54.4
Uncompahgre Valley	30.6	29.3	23.9	21.2	15.8	3.6	29.1
Olathe	14.6	30.7	7.8	45.5	84.2	1.7	16.5
Entire County	100.0	100.0	100.0	100.0	100.0	100.0	100.0

**TABLE II—NUMBER OF ACRES OF EACH FRUIT FOR EACH DISTRICT IN
ENTIRE COUNTY**

Fruit	Spring Creek Mesa	Uncompahgre Valley	Olathe	Entire County
Apples	499	252½	178	929½
Apricots	3	2	2	7
Peaches	13½	7½	8	29
Pears . . . . .	....	....	2	2
Plums	10	....	....	10
Sour Cherries	6	1½	....	7½
Sweet Cherries	1	....	....	1
Total, All Fruits	532½	263½	190	986

TABLE II—NUMBER OF ACRES OF EACH FRUIT OF BEARING AGE FOR EACH DISTRICT

Fruit	Spring Creek Mesa	Uncompahgre Valley	Olathe	Entire County
Apples	478.6	239.4	155.1	873.1
Apricots	3.0	2.0	1.6	6.6
Peaches	13.5	7.5	7.5	28.5
Pears . . . . .	....	....	2.0	2.0
Plums	10.0	....	....	10.0
Sour Cherries	6.0	1.4	....	7.4
Sweet Cherries	1.0	....	....	1.0
Totals, All Fruits	512.1	250.3	166.2	928.6

TABLE III—SIX PRINCIPAL VARIETIES OF APPLES, SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Spring Creek Mesa	Uncompahgre Valley	Olathe	Entire County
Jonathan	35.1	41.6	26.9	35.8
Ben Davis	18.0	13.9	16.0	16.5
Winesap	19.3	8.3	8.3	14.3
Gano	6.9	6.6	5.6	6.6
Ralls	1.2	6.8	6.5	3.7
Rome	0.5	5.3	10.6	3.5
All others (44 var.)	19.0	17.5	26.1	19.6
Totals	100.0	100.0	100.0	100.0

TABLE IV—THREE PRINCIPAL VARIETIES OF PEARS, SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Spring Creek Mesa	Uncompahgre Valley	Olathe	Entire County
Kieffer			75.4	62.5
Bartlett		69.2	24.6	31.2
Sckel		19.2	....	3.1
All others (1 var.)		11.6	....	3.2
Totals		100.0	100.0	100.0

TABLE V—FOUR PRINCIPAL VARIETIES OF PEACHES, SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Spring Creek Mesa	Uncompahgre Valley	Olathe	Entire County
Elberta	100.0	99.6	94.4	97.5
Hale Early . . . . .	....	....	3.1	1.3
Early Crawford . . . . .	....	0.4	2.1	1.0
Champion . . . . .	....	....	0.4	0.2
Totals	100.0	100.0	100.0	100.0

AGRICULTURAL EXPERIMENT STATION

TABLE VI—SIX PRINCIPAL VARIETIES OF PLUMS AND PRUNES, SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Spring Creek	Uncompahgre	Olathe	Entire County
	Mesa	Valley		
Abundance	33.4	12.8	....	32.3
Damson	33.3	5.1	....	31.9
Satsuma	33.3	12.8	....	31.8
Reine Claude . . . . .	....	12.8	100.0	0.6
Wild Goose . . . . .	....	12.8	....	0.6
Bradshaw . . . . .	....	12.9	....	0.5
All Others (1 var.) . . . . .	....	30.8	....	2.3
Totals	100.0	100.0	100.0	100.0

TABLE VII—FOUR PRINCIPAL VARIETIES OF APRICOTS, SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Spring Creek	Uncompahgre	Olathe	Entire County
	Mesa	Valley		
Moorpark	100.0	52.2	73.4	77.7
Peach . . . . .	....	46.8	21.4	20.4
Royal . . . . .	....	....	5.2	1.6
Unknown . . . . .	....	1.0	....	0.3
Totals	100.0	100.0	100.0	100.0

TABLE VIII—SIX PRINCIPAL VARIETIES OF CHERRIES, SHOWING PERCENTAGES GROWN IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Spring Creek	Uncompahgre	Olathe	Entire County
	Mesa	Valley		
Early Richmond	80.4	56.9	75.5	74.5
Bing	8.3	8.7	24.5	10.1
Montmorency	3.4	29.2	....	9.2
Ox Heart	7.3	....	....	4.8
English Morello	0.4	2.5	....	0.5
Napoleon	0.1	1.2	....	0.5
All others (1 var.)	0.1	1.5	....	0.4
Totals	100.0	100.0	100.0	100.0

TABLE IX—NUMBER OF APPLE TREES OF EACH DISTRICT AND OF ENTIRE COUNTY BY AGE CLASS

Age Class	Spring Creek	Uncompahgre	Olathe	Entire County
	Mesa	Valley		
1-8 years	1,410	930	1,106	3,446
8-12 years	4,985	3,351	2,980	11,316
12-40 years	27,321	14,140	5,090	46,551
Totals	33,716	18,421	9,176	61,313

TABLE IX-a—PERCENTAGE OF APPLE TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Spring Creek	Uncompahgre	Olathe	Entire County
	Mesa	Valley		
1-8 years	38.8	26.4	34.8	100.0
8-12 years	44.2	29.2	26.6	100.0
12-40 years	58.6	30.1	11.3	100.0

**TABLE IX-b—PERCENTAGE OF APPLE TREES OF EACH AGE CLASS
PLANTED IN EACH DISTRICT**

Age Class	Spring Creek	Uncompahgre	Olathe	Entire
	Mesa	Valley		County
1-8 years	4.1	5.4	12.9	5.8
8-12 years	14.7	18.3	32.2	18.3
12-40 years	81.2	76.3	54.9	75.9
Totals	100.0	100.0	100.0	100.0

**TABLE X—NUMBER OF PEAR TREES OF EACH DISTRICT AND OF
ENTIRE COUNTY BY AGE CLASS**

Age Class	Spring Creek	Uncompahgre	Olathe	Entire
	Mesa	Valley		County
1-8 years		12	.....	12
8-12 years			200	200
12-40 years		40	65	105
Totals		52	265	317

**TABLE X-a—PERCENTAGE OF PEAR TREES OF EACH AGE CLASS
PLANTED IN EACH DISTRICT**

Age Class	Spring Creek	Uncompahgre	Olathe	Entire
	Mesa	Valley		County
1-8 years		100.0	.....	100.0
8-12 years			100.0	100.0
12-40 years		38.1	61.9	100.0

**TABLE X-b—PERCENTAGE OF PEAR TREES OF EACH DISTRICT WITH
RESPECT TO AGE**

Age Class	Spring Creek	Uncompahgre	Olathe	Entire
	Mesa	Valley		County
1-8 years		23.1	.....	3.7
8-12 years			75.5	63.1
12-40 years		76.9	24.5	33.2
Totals		100.0	100.0	100.0

**TABLE XI—NUMBER OF PEACH TREES OF EACH DISTRICT AND OF
ENTIRE COUNTY BY AGE CLASS**

Age Class	Spring Creek	Uncompahgre	Olathe	Entire
	Mesa	Valley		County
1-8 years .....	.....	.....	144	144
8-12 years	400	680	700	1,780
12-40 years	725	46	567	1,338
Totals	1,125	726	1,411	3,262

**TABLE XI-a—PERCENTAGE OF PEACH TREES OF EACH AGE CLASS
PLANTED IN EACH DISTRICT**

Age Class	Spring Creek	Uncompahgre	Olathe	Entire
	Mesa	Valley		County
1-8 years .....	.....	.....	100.0	100.0
8-12 years	22.2	38.8	39.0	100.0
12-40 years	50.1	3.7	46.2	100.0

TABLE XI-b—PERCENTAGE OF PEACH TREES OF EACH DISTRICT WITH RESPECT TO AGE

Age Class	Spring Creek Mesa	Uncompahgre Valley	Olathe	Entire County
1-8 years .....	.....	.....	10.5	4.5
8-12 years	36.3	94.4	48.9	54.2
12-40 years	63.7	5.6	40.6	41.3
Totals	100.0	100.0	100.0	100.0

TABLE XII—PERCENTAGE OF APRICOT TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Spring Creek Mesa	Uncompahgre Valley	Olathe	Entire County
1-8 years .....	.....	100.0	.....	100.0
8-12 years	93.7	1.6	4.7	100.0
12-40 years .....	.....	49.5	50.5	100.0

TABLE XIII—PERCENTAGE OF PLUM TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Spring Creek Mesa	Uncompahgre Valley	Olathe	Entire County
1-8 years .....	.....	.....	.....	.....
8-12 years	100.0	.....	.....	100.0
12-40 years .....	.....	88.1	11.9	100.0

TABLE XIV—PERCENTAGE OF SOUR CHERRY TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Spring Creek Mesa	Uncompahgre Valley	Olathe	Entire County
1-8 years .....	.....	53.8	46.2	100.0
8-12 years	90.3	.....	9.7	100.0
12-40 years	65.8	26.3	7.9	100.0

TABLE XV—PERCENTAGE OF SWEET CHERRY TREES OF EACH AGE CLASS PLANTED IN EACH DISTRICT

Age Class	Spring Creek Mesa	Uncompahgre Valley	Olathe	Entire County
1-8 years .....	.....	100.0	.....	100.0
8-12 years	93.4	6.6	.....	100.0
12-40 years	18.1	25.0	56.9	100.0

GRAND TOTALS—MONTROSE COUNTY

Number of acres in fruit trees	986	CONDITION OF ORCHARDS		
Number of fruit trees of all kinds	67,615	Fair	62	
Number of orchards	81	Good	15	
DISTRIBUTION OF TREES BY AGE CLASS		Poor	4	
		Total	81	
Age 1-8 years	3,638			
Age 8-12 years	14,707			
Age 12-40 years	49,270			

SURVEY OF GARFIELD COUNTY

Commercial fruit-growing in Garfield County is confined to the valley of the Colorado River, extending from Glenwood Springs westward to De Beque, the better fruit lands being along the mesas and ridges along the valley. The upper portion of the valley is less highly developed than the lower. The valley lands proper, especially in the lower end of the valley, are heavy greasewood lands and are not adapted to fruit growing. Commercial orchards are relatively few, the leading industry being general agriculture. It is doubtful if any large acreage will ever be developed for commercial fruit growing.

Condition of the Orchards.—With few exceptions the orchards are neglected. This condition is due to the fact that many orchards were planted on land unsuited for trees and the growers have become discouraged. Only on the higher mesas will fruit growing become profitable. Most of the commercial varieties of apples can be grown successfully while pears and peaches have not proven profitable. It is only in the more favorable locations that fruit growing can be made profitable.

GARFIELD COUNTY

Grand Valley Section includes:

- Grand Valley
- Battlement Mesa
- Rulison

Rifle Section includes:

- Rifle
- Silt

Glenwood Springs Section includes:

- Newcastle
- Glenwood Springs

CLIMATOLOGICAL DATA

The fruit district of Garfield County extends from Glenwood Springs to De Beque, occupying the irregular and narrow valley of the Colorado River and the adjacent mesas. The elevation varies from 5,758 feet at Glenwood Springs to 4,945 feet

at De Beque, a distance of about 50 miles. There is considerable difference, both in temperature and length of the growing season, between the upper and lower limits of the district, as indicated by the records of the three stations.

Many of the late-maturing varieties of fruit do not reach their highest perfection in the upper end of the district, and the prospective fruit grower should consult the weather records and also visit the present orchards before setting out new orchards.

The general topography is, on the whole, very favorable for general fruit growing, especially apples. The mesa lands are, on the whole, better than the valley lands.

I. Precipitation in the regions drained by the Colorado River, the Rio Grande and the San Luis Lakes: Monthly, annual, and average amounts (in inches and hundredths.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual	Average
Glenwood Springs	1.32	0.81	1.07	1.09	1.00	0.65	1.33	1.50	1.10	1.00	0.85	1.20	12.92	1888-1917
Grand Valley	1.04	0.99	1.32	1.14	1.11	0.59	0.98	0.97	1.37	1.29	0.97	0.92	12.69	1889-1914
Rifle	0.92	0.39	0.87	1.08	1.14	0.54	0.95	1.14	1.15	1.59	0.74	0.87	11.38	1910-1917
Silt	0.90	0.82	1.37	1.14	1.45	0.70	1.17	1.21	1.35	1.03	0.72	0.65	12.51	1894-1909

Glenwood Springs, Garfield County, Colorado—Elevation 5,823 feet.

Grand Valley, Garfield County, Colorado—Elevation 5,089 feet.

Rifle, Garfield County, Colorado—Elevation 5,350 feet.

Silt, Garfield County, Colorado, Elevation 5,441 feet.

II. Average monthly and annual snowfall.

Length of Record

	(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Glenwood Springs	16	15.8	9.8	4.4	1.1	0.3	0.0	0.0	0.0	0.6	2.3	3.8	15.0	53.1
Grand Valley	20	9.2	8.3	3.4	0.4	1.0	0.0	3.9	0.0	0.0	0.2	2.9	9.3	34.7
Rifle	7	10.5	5.8	3.1	0.3	T.	0.0	0.0	0.0	T.	T.	1.7	9.9	31.3

III. Average number of days with 0.01 inch or more precipitation.

Length of Record

	(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Glenwood Springs	16	8	6	6	5	4	3	7	6	5	5	4	7	66
Grand Valley	20	7	7	8	7	6	5	7	8	6	5	6	6	78
Rifle	7	9	6	7	9	7	5	8	8	7	6	4	6	82

IV. Mean temperatures.

Length of Record

	(Years)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Glenwood Springs	17	22.1	26.7	37.5	46.3	53.3	60.4	66.5	61.8	57.9	46.7	34.7	26.1	45.0
Grand Valley	22	24.5	30.2	40.0	49.2	57.3	66.1	72.5	71.4	62.3	49.7	37.7	24.7	48.8
Rifle	18	23.7	27.4	37.4	48.0	55.3	64.9	70.8	69.3	61.0	49.0	37.4	25.1	47.4

V. Mean minimum temperatures.

Length of Record (Years)		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Glenwood Springs	15	7.5	12.6	24.0	30.0	35.2	39.5	44.5	44.5	37.7	27.5	19.3	8.6	27.6
Grand Valley	22	11.7	17.0	25.4	32.9	40.4	46.9	51.5	51.1	42.7	31.4	22.2	11.9	32.1
Rifle	18	11.7	16.9	24.6	33.3	39.7	47.2	53.5	52.2	44.4	33.4	23.8	13.3	32.8

VI. Mean maximum temperatures.

Length of Record (Years)		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Glenwood Springs	15	36.9	40.5	50.3	61.1	68.8	79.6	84.9	83.8	76.2	65.0	51.9	38.2	61.4
Grand Valley	22	37.7	42.8	54.5	65.7	75.1	85.1	90.9	88.7	80.3	66.6	53.1	37.8	64.9
Rifle	18	35.0	40.8	49.6	62.9	70.6	82.4	88.0	86.5	77.9	65.1	51.9	37.6	62.4

VII. Highest temperatures.

Length of Record (Years)		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Glenwood Springs	15	54	63	74	82	87	94	99	93	90	88	70	60	99
Grand Valley	22	57	65	79	87	95	102	104	104	96	89	78	62	104
Rifle	18	57	64	76	81	89	99	101	101	92	82	78	59	101

VIII. Lowest temperatures.

Length of Record (Years)		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Glenwood Springs	15	-38	-30	-14	7	17	23	30	28	19	10	-6	-22	-38
Grand Valley	22	-25	-23	-9	10	18	31	33	36	25	14	-3	-17	-25
Rifle	18	-33	-25	-12	8	20	27	34	41	25	11	-13	-19	-33

IX. Frost data.

Length of Record		Average date of				Average date of		Latest date of		Earliest date of	
	(Years)	last killing frost in spring.				first killing frost in autumn.		killing frost in spring.		killing frost in autumn.	
Glenwood Springs	 12	May 30				Sept. 17		July 4		Aug. 9	
Grand Valley	 20	May 3				Sept. 29		May 27		Sept. 11	

Glenwood Springs—Station located in a moderately broad rolling valley, about 1-8 mile west of the Roaring Fork River. Hills east and west, and high mountains south. Conditions favorable to frost formation.

Grand Valley—Station located about 150 yards south of Grand River. Surroundings favorable to frost formation.

NUMBER OF ORCHARDS IN GARFIELD COUNTY

Glenwood Springs	9
Grand Valley	29
Rifle	5
Total	43

NUMBER OF APPLE TREES IN EACH ORCHARD DISTRICT

Glenwood Springs	4,721
Grand Valley	33,985
Rifle	5,500
Total trees	44,206

NUMBER OF APRICOT TREES IN EACH ORCHARD DISTRICT

Glenwood Springs	..
Grand Valley	330
Rifle	..
Total trees	330

NUMBER OF CHERRY TREES IN EACH ORCHARD DISTRICT

Glenwood Springs	1,030
Grand Valley	1,280
Rifle	..
Total trees	2,310

NUMBER OF PEACH TREES IN EACH ORCHARD DISTRICT

Glenwood Springs	100
Grand Valley	2,690
Rifle	..
Total trees	2,790

NUMBER OF PEAR TREES IN EACH ORCHARD DISTRICT

Glenwood Springs	..
Grand Valley	300
Rifle	..
Total trees	300

NUMBER OF PLUM TREES IN EACH ORCHARD DISTRICT

Glenwood Springs	225
Grand Valley	..
Rifle	..
Total trees	225

SUMMARY

No. of apple trees in Garfield county	44,206
No. of apricot trees in Garfield County	330
No. of cherry trees in Garfield county	2,310
No. of peach trees in Garfield county	2,790
No. of pear trees in Garfield county	300
No. of plum trees in Garfield county	225
Grand total	50,161

CROPS GROWN IN THE ORCHARDS—GARFIELD COUNTY

	Alfalfa	Clean Cultivation	Orchard Grass	Sweet Clover	Truck
Glenwood Springs	3	....	4	....	2
Grand Valley	14	1	7	2	5
Rifle	2	....	3	....	....
Totals	19	1	14	2	7

APPLES

NUMBER AND VARIETIES OF APPLE TREES IN GARFIELD COUNTY

1. Arkansas Black	150	16. Paragon	700
2. Banana	300	17. Ralls	175
3. Beach	100	18. Red Astrachan	194
4. Ben Davis	11,780	19. Rome	960
5. Delicious	4,291	20. Stayman Winesap	935
6. Early Harvest	325	21. Sweet Pippin	100
7. Gano	9,470	22. Walbridge	200
8. Grimes	50	23. Wealthy	139
9. Iowa Blush	100	24. Whitney (crab)	15
10. Jonathan	7,356	25. Winesap	2,726
11. King David	2,820	26. Wolf River	2
12. Livland Raspberry	3	27. Yellow Transparent	968
13. Maiden Blush	100	28. York Imperial	50
14. Missouri	94		
15. Northwestern Greening	103	Total	44,206

NUMBER AND VARIETIES OF APPLE TREES GROWN IN GARFIELD COUNTY AND THEIR DISTRIBUTION

Variety	Glenwood Springs	Grand Valley	Rifle	Totals
1. Arkansas Black	....	150	....	150
2. Banana	....	300	....	300
3. Beach	....	100	....	100
4. Ben Davis	3,310	5,170	3,300	11,780
5. Delicious	466	3,575	250	4,291
6. Early Harvest	....	325	....	325
7. Gano	265	9,105	100	9,470
8. Grimes	....	50	....	50
9. Iowa Blush	....	100	....	100
10. Jonathan	350	5,956	1,050	7,356
11. King David	....	2,820	....	2,820
12. Livland Raspberry	3	....	....	3
13. Maiden Blush	....	100	....	100
14. Missouri	....	94	....	94
15. Northwestern Greening	....	103	....	103
16. Paragon	....	500	200	700
17. Ralls	....	175	....	175
18. Red Astrachan	....	194	....	194
19. Rome	100	610	250	960
20. Stayman Winesap	....	935	....	935
21. Sweet Pippin	....	100	....	100
22. Walbridge	....	200	....	200
23. Wealthy	39	100	....	139
24. Whitney (crab)	15	....	....	15
25. Winesap	73	2,303	350	2,726
26. Wolf River	2	....	....	2
27. Yellow Transparent	98	870	....	968
28. York Imperial	....	50	....	50
Totals	4,721	33,985	5,500	44,206

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Glenwood Springs	Grand Valley	Rifle	Summary
No. Acres	50	328	55	433
No. Trees	4,721	33,985	5,500	44,206
Age 1-8 years	500	2,210	....	2,710
Age 8-12 years	64	15,430	2,000	18,071
Age 12-40 years	3,580	16,345	3,500	23,425
Fair Condition	4	10	2	16
Good Condition	4	16	2	22
Poor Condition	1	3	1	5

APRICOTS**NUMBER AND VARIETIES OF APRICOT TREES IN GARFIELD COUNTY**

1. Moorpark	330
-------------------	-----

NUMBER AND VARIETIES OF APRICOT TREES GROWN IN GARFIELD COUNTY AND THEIR DISTRIBUTION

Variety	Glenwood Springs	Grand Valley	Rifle	Totals
1. Moorpark		330	....	330

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Glenwood Springs	Grand Valley	Rifle	Summary
No. Acres		3	....	3
No. Trees		330	....	330
Age 1-8 years				
Age 8-12 years		330	....	330
Age 12-40 years				
Fair Condition				
Good Condition		1	....	1
Poor Condition				

CHERRIES**NUMBER AND VARIETIES OF CHERRY TREES IN GARFIELD COUNTY**

1. Bing	100
2. Early Richmond	1,313
3. English Morello	300
4. Montmorency	324
5. Sixteen-to-One	273

Total	2,310
-------------	-------

NUMBER AND VARIETIES OF CHERRY TREES GROWN IN GARFIELD COUNTY AND THEIR DISTRIBUTION

Variety	Glenwood Springs	Grand Valley	Rifle	Totals
1. Bing	100	....	....	100
2. Early Richmond	900	413	....	1,313
3. English Morello	30	270	....	300
4. Montmorency .....	....	324	....	324
5. Sixteen-to-One .....	....	273	....	273
Totals	1,030	1,280	....	2,310

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Glenwood Springs	Grand Valley	Rifle	Summary
No. Acres	11	11½	....	22½
No. Trees	1,030	1,280	....	2,310
Age 1-8 years .....	....	....	....	....
Age 8-12 years	950	1,180	....	2,130
Age 12-40 years	80	100	....	180
Fair Condition	2	1	....	3
Good Condition	2	2	....	4
Poor Condition .....	....	....	....	....

PEACHES**NUMBER AND VARIETIES OF PEACH TREES IN GARFIELD COUNTY**

1. Austin	100
2. Carman	350
3. Early Crawford	100
4. Elberta	2,090
Unknown	150
Total	2,790

NUMBER AND VARIETIES OF PEACH TREES GROWN IN GARFIELD COUNTY AND THEIR DISTRIBUTION

Variety	Glenwood Springs	Grand Valley	Rifle	Totals
1. Austin .....	....	100	....	100
2. Carman .....	....	350	....	350
3. Early Crawford .....	....	100	....	100
4. Elberta	100	1,990	....	2,090
Unknown .....	....	150	....	150
Totals	100	2,690	....	2,790

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Glenwood Springs	Grand Valley	Rifle	Summary
No. Acres	4	19	....	23
No. Trees	100	2,690	....	2,790
Age 1-8 years .....	....	370	....	370
Age 8-12 years .....	....	1,020	....	1,020
Age 12-40 years	100	1,300	....	1,400
Fair Condition	1	5	....	6
Good Condition .....	....	1	....	1
Poor Condition .....	....	1	....	1

PEARS**NUMBER AND VARIETIES OF PEAR TREES IN GARFIELD COUNTY**

1. Joannet	100
2. Kieffer	100
3. Worcester	100
Total	300

**NUMBER AND VARIETIES OF PEAR TREES GROWN IN GARFIELD
COUNTY AND THEIR DISTRIBUTION**

Variety	Glenwood Springs	Grand Valley	Rifle	Totals
1. Joannet		100	....	100
2. Kieffer		100	....	100
3. Worcester		100	....	100
Totals		300	....	300

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Glenwood Springs	Grand Valley	Rifle	Summary
No. Acres		4	....	4
No. Trees		300	....	300
Age 1-8 years				
Age 8-12 years				
Age 12-40 years		300	....	300
Fair Condition				
Good Condition				
Poor Condition		1	....	1

PLUMS

NUMBER AND VARIETIES OF PLUM TREES IN GARFIELD COUNTY

1. German Prune	63
2. Italian Prune	80
3. Lombard	47
4. Reine Claude	5
5. Washington	20
6. Yellow Egg	10
Total	225

**NUMBER AND VARIETIES OF PLUM TREES GROWN IN GARFIELD
COUNTY AND THEIR DISTRIBUTION**

Variety	Glenwood Springs	Grand Valley	Rifle	Totals
1. German Prune	63	....	....	63
2. Italian Prune	80	....	....	80
3. Lombard	47	....	....	47
4. Reine Claude	5	....	....	5
5. Washington	20	....	....	20
6. Yellow Egg	10	....	....	10
Totals	225	....	....	225

DISTRIBUTION, ACREAGE, TREES, AGE, AND CONDITION

	Glenwood Springs	Grand Valley	Rifle	Summary
No. Acres	4	....	....	4
No. Trees	225	....	....	225
Age 1-8 years . . . . .	....	....	....	....
Age 8-12 years . . . . .	....	....	....	....
Age 12-40 years	225	....	....	225
Fair Condition	1	....	....	1
Good Condition	3	....	....	3
Poor Condition . . . . .	....	....	....	....

TABLE I—NUMBER OF FRUIT TREES IN EACH DISTRICT

District	Apples	Apricots	Cherries	Peaches	Pears	Plums	Dist. T'l
Glenwood Springs	4,721	....	1,030	100	....	225	6,076
Grand Valley	33,985	330	1,280	2,690	300	....	38,585
Rifle	5,500	....	....	....	....	....	5,500
Entire County	44,206	330	2,310	2,790	300	225	50,161

TABLE II—NUMBER OF ACRES OF EACH FRUIT FOR EACH DISTRICT IN ENTIRE COUNTY

	Glenwood Springs	Grand Valley	Rifle	Entire County
Apples	50	328	55	433.0
Apricots . . . . .	....	3	....	3.0
Cherries	11	11.5	....	22.5
Peaches	4	19	....	23.0
Pears . . . . .	....	4	....	4.0
Plums	4	....	....	4.0
Totals, all fruits	69	365.5	55	489.5

TABLE II-a—NUMBER OF ACRES OF EACH FRUIT OF BEARING AGE FOR EACH DISTRICT

	Glenwood Springs	Grand Valley	Rifle	Entire County
Apples	44.7	325.1	55	424.8
Apricots . . . . .	....	3.0	....	3.0
Cherries	11.0	11.5	....	22.5
Peaches	4.0	16.8	....	20.8
Pears . . . . .	....	4.0	....	4.0
Plums	4.0	....	....	4.0
Totals, all fruits	63.7	360.4	55	479.1

TABLE III—SIX PRINCIPAL VARIETIES OF APPLES, SHOWING PERCENT-AGES GROW IN EACH DISTRICT AND IN ENTIRE COUNTY

Variety	Glenwood Springs	Grand Valley	Rifle	Entire County
Ben Davis	70.2	15.0	60.0	25.0
Gano	4.2	26.8	1.8	20.5
Jonathan	6.4	17.3	18.2	15.9
Delicious	8.5	10.2	3.6	9.1
King David . . . . .	....	8.2	....	4.5
Winesap	1.4	6.7	5.4	4.4
All others (22 var.)	9.3	15.8	11.0	20.6
Totals	100.0	100.0	100.0	100.0

TABLE IV—NUMBER OF APPLE TREES OF EACH DISTRICT AND OF ENTIRE COUNTY BY AGE CLASS

Age Class	Glenwood Springs	Grand Valley	Rifle	Entire County
1-8 years	500	2,210	....	2,710
8-12 years	641	15,430	2,000	18,071
12-40 years	3,580	16,345	3,500	23,425
Totals	4,721	33,985	5,500	44,206

GRAND TOTALS—GARFIELD COUNTY

Number of acres in fruit trees.....	489.5
Number of fruit trees of all kinds.....	50,161.
Number of orchards	43.

DISTRIBUTION OF TREES BY AGE CLASS

Age 1-8 years	3,080
Age 8-12 years	21,551
Age 12-40 years	25,530

CONDITION OF ORCHARDS

Fair	15
Good	23
Poor	5
	43