

Lewiston Orchards Life

AN EXPONENT OF PROGRESSIVE HORTICULTURE AND THE SUCCESSFUL RURAL COMMUNITY

VOLUME 1

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Facts and Figures on Piping and Flumes

AN owner recently built a wooden flume along the avenue side at the front of his five acre orchard, for the purpose of facilitating the work of irrigation, and makes the following detailed statement of his cost. He has figured in his own labor at \$3.00 per day, and the hauling of lumber and material at \$2.00, as well as the painting of the flume at \$1.25:

500 ft. 1x6x16 flume lumber at \$16 per M.....	\$ 8.00
Hauling lumber and material to Orchards	2.00
1 gal. red paint	1.40
1 gal. coal tar	1.00
Labor—2 1-2 days at \$3 per day.	7.50
Painting	1.25
	<hr/>
	\$21.15

It is quite desirable to construct some such arrangement as this for the purpose of saving in the cost of irrigation. Where orchards slope from the alley toward the avenue, the flume is placed across the rear end of the lot, but when the avenue side of the property is the higher, then it is necessary to build the flume along the front side so that the water used in irrigation will flow naturally with the slope of the land.

It is a natural inference that all owners should be interested in the cost of installing the piping inside their orchard property. Of course, this would depend entirely upon the contour, as in many cases it is necessary to pipe away from the alley for irrigation can naturally be conducted by plowing furrows along side the rows of trees, and the water thus flows towards the avenue without piping. In cases where piping to the avenue side is necessary, the following would install the pipe line for the distribution of the water inside of a five acre property:

620 ft. 2 in. galv. iron pipe with unions at 14 1-2c per foot. . . .	\$ 89.90
3 2 in. globe valves at \$3.75 each	11.25
Labor, digging trenches and connecting up piping (about) . . .	20.00
	<hr/>
	\$121.15

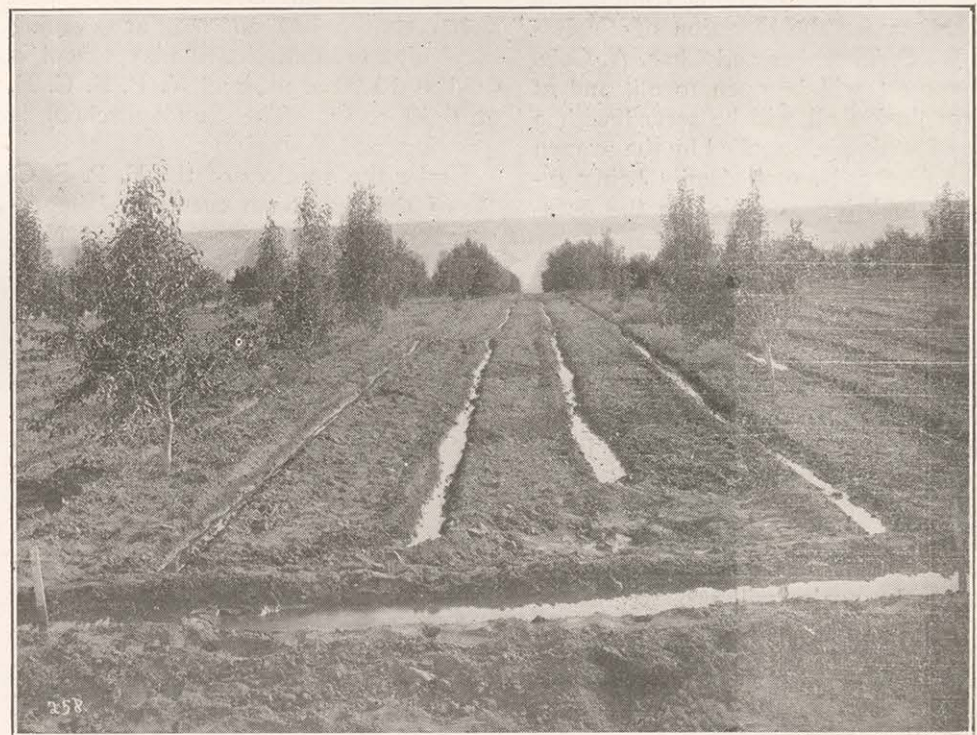
The foregoing represents about all that is necessary to install the distribution pipes complete, although in some cases owners have added small pipes for this purpose.

A 1 in. galvanized iron pipe connection is used for household supply, lawn irrigation and fire protection.

The length of the flume as in the foregoing statement, would be approximately 300 ft. across the front of the lot, and

moved many of the peach trees. P. W. Clark has had about 2,400 removed from his "Fairmount Orchards" tract of twenty-five acres, and Tracy Keedy has taken 1,200 from fifteen acres, ten acres of which were planted with double fillers and five acres with single fillers.

The process of pulling is an interesting one. An 85-horse-power traction engine is used, and a record has been made of pulling 666 trees in seven hours, and



Irrigating Three-Year-Old Trees with a Dirt Head Ditch

the length of the pipe line along the side would be approximately 620 ft. Total cost therefore equals \$143.30 or an average of about \$28.00 per acre.

This is the maximum cost on a 5-acre unit. A 10-acre unit would cost on the same basis less than \$15 per acre and 20 acres less than \$10 per acre. The minimum costs for 5, 10 and 20-acre units will average from \$2.50 to \$3.00 per acre.

PULLING THE PEACHES.

Some of the growers who have peach fillers have concluded to give the apples more room, and have accordingly re-

three in 70 seconds. The trees are afterward taken from the tract and used as fuel. The cost of removal ranges from five to ten cents a tree, according to size of tract and trees and convenience of access to the trees. The removal of the tree roots loosens the soil and leaves the ground in fine condition.

The Orchards election precinct had a registration of 196, and about 135 votes were cast. There were 78 women registered, many of whom voted. The votes was pretty well divided between Wilson, Taft and Roosevelt.

Community Life in Lewiston Orchards

LEWISTON ORCHARDS ASSEMBLY.

Last month's meeting of Lewiston Orchards Assembly was held Oct. 21, and had a large attendance. The membership committee had been busy and thirty-nine new members were admitted, with more in prospect. The present membership is about 120.

Professor W. S. Thornber gave a very instructive address on "The Beautification of Home Grounds." Mr. H. L. Powers spoke of the conservation of the fruit crop, through co-operation of the two communities, the city and the Orchards.

The next meeting will be held Nov. 18, when an apple judging contest will be held, under the direction of Professors W. S. Thornber and Chas. A. Cole. The contest will be open to all, and at the conclusion all will be served with a piece of apple pie, supplied by the women of the Orchards, each family being requested to bring one pie for the occasion.

LEWISTON ORCHARDS ASSOCIATION.

The apple packing season is in progress at the packing house of the Lewiston Orchards Association. About 500 boxes are being packed, chiefly of Jonathan, Rome Beauty, Winter Banana, Spitzenberg and Yellow Newtown varieties. With the exception of small shipments by express to various parts of the country, the apples will probably all be sold in the local market. Boxes of the fruit have recently been placed in a number of the leading stores in Lewiston and attract much attention.

The orchards selling movement for the dryer fund is under way again, and is making headway, with prospect of substantial progress to report soon.

HOSPITAL BOARD AUXILIARY.

The Lewiston Orchards auxiliary to the advisory board of St. Joseph's hospital held its meeting last month, on Oct. 23, with Mrs. Geo. G. Ames, on Burrell avenue and Tenth street. Another meeting was held Nov. 6, with Mrs. L. C. Giesecker, on Warner avenue and Ninth street and a second meeting this month will be held Nov. 18, with Mrs. L. A. Blackman, on Warner avenue between Fifth and Sixth streets. Work is in preparation for the hospital bazar to be held in Lewiston, next month.

OLD LADIES' CLUB.

The Old Ladies' Club met at the home of Mrs. H. H. Smith, Oct. 19. All had such a good time that they declared it wouldn't do to tell, and everybody has since been busy guessing, with a suspicion that the music of the graphophone had something to do with it.

Those present were: Mesdames J. C. Bonnell, G. G. Ames, Bishop, Josiah Butler J. L. Klapp, M. E. Fuller, H. S. Gano, R. Pickering, Smith. The next meeting is to be held with Mrs. J. L. Klapp.

CHURCH ACTIVITIES.

The Lewiston Orchards Congregational church has no regular evening service at present, but Sunday school is held at 10:00 a. m., and Y. P. S. C. E. at 6:30 p. m. The Sunday school is growing and flourishing.

Under the auspices of the Y. P. S. C. E., of the church an evening of impersonations and readings was given Nov. 1, by D. Lloyd Morgan, for the benefit of the piano fund.

The young people of the church, under the direction of Mrs. A. J. Duffus, gave a very elaborate and highly creditable Hallowe'en entertainment at the church on Saturday evening, Nov. 2. A march of Hallowe'en ghosts, plays, songs and other features were on the stage program, followed by a lunch in the church basement. There was a small charge in pennies, and the attendance was large.

A "kitchen shower" for the furnishing of the church kitchen was given Nov. 7, at the home of Dr. and Mrs. R. W. Cram, on Preston avenue and Seventh street. Dainty refreshments were served and a social good time prevailed. A large equipment of kitchen things was secured. The attendance was good among those present being the following: Mesdames F. B. Gano, W. Eddy, L. A. Blackman, L. C. Giesecker, C. A. Woodmansee, J. B. White, S. B. Stedman, H. H. S. Rowell, Geo. E. Ames, S. W. Whitford, Mae Troeh, J. L. Goodnight, A. J. Duffus, G. G. Ames, G. E. Ames, Kate K. Butler, J. E. Butler, W. H. Bankson, W. French, D. H. Guiland, Bishop, W. T. McUumber, Emily Kennedy, H. H. Smith, Kate B. Chase, D. W. Clark, R. Pickering, J. L. Klapp, C. Tyler, R. W. Cram; Misses Belle and Ethel French. The next regular meeting will be held Nov. 14, at the church,

and a supper will be served at the church Nov. 26.

RECENT ARRIVALS.

Mr. R. A. Bonnell, of Chicago, who arrived here with his family Nov. 4, to take up his residence on his tract in the Orchards, was gratly surprised to find the weather so mild. "We have been riding for two days through a country covered with snow and ice," he said. "Through part of Montana, the snow was eight inches deep and from Spokane to within 35 miles of Lewiston we ran through frequent snow storms. On getting off the train here we feel we are coming into the Garden of Eden." Mr. Bonnell is a civil engineer and is skilled in long-range photography. Himself and family are guests at present of his parents, Mr. and Mrs. John C. Bonnell, on Seventeenth street and Ripon avenue.

R. H. Billingsley and J. H. Adam of Portland, are recent arrivals, who as experienced contractors and builders, expect to find active employment here. They have already found work on the residence of Chas. A. Woodmansee, and will later improve their own tracts in the Orchards.

The family of W. J. Mace recently arrived from Wisconsin, and will reside in Lewiston until Mr. Mace improves his tract in the Orchards.

Elmer E. Battan, wife and daughter, from Oak Park, Ill., were arrivals last month. Mr. Battan is a linotype operator and is now with the Lewiston Tribune and resides at 316 First avenue in Lewiston. He plans to build on his property in Lewiston Orchards the coming year. Mr. and Mrs. Battan's holdings are on Grelle avenue and Sixteenth street, near the Relief Reservoir Park, where their cousins, Thos. H. and Henry Hammond McNeill, own nearby selections.

A HALLOWE'EN PARTY.

A very happy Hallowe'en party was given Oct. 31, at the home of Mr. and Mrs. Storey Buck, on Pryden avenue and Tenth street, by Misses Katherine and Lillian Buck and Ardys Ames, to about twenty-five of their young friends. The evening was spent in Hallowe'en games, dancing, telling of ghost stories and other diversions, with music and refreshments as accompanying features. It was a costume affair.

Lewiston Orchards Life

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For the information and aid of orchard owners here and elsewhere.

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PRESSING ORCHARD PROBLEMS

In common with other important fruit districts of the Northwest Lewiston Orchards is preparing to solve the pressing orchard problems which are involved in the conservation of the entire fruit output. An important feature of this work is the saving of what has hitherto been wasted. It is now recognized that the utilization of orchard by-products is essential to a complete and profitable orchard industry.

In Lewiston Orchards, where special effort has been made, from the first, to put the growing of apples upon a manufacturing industry basis, plans are now definitely under way for the solving of these problems. Success is to be assured by the co-operation of city and orchards. The orchards selling movement for the raising of a dryer fund is but an incidental feature of such efforts.

That the time is ripe for such a move is indicated by the trend of the program at the National Apple Show at Spokane this month where four million apples will be displayed, but where the most striking feature will be the educational object lessons afforded in the conservation of fruit interests. At conferences of the growers there will be considered the pressing problems of stocks, varieties, cultivation, pruning, spraying, harvesting, packing, storage, marketing and utilization of by-products.

The fact is recognized that within a few years the Northwest will be shipping more cars of apples than it now is of wheat. The business communities are preparing to co-operate with the the fruit growers in the distribution of orchard products, and involves the prevention of the waste of the quickly perishable fruit and the utilization of the lower grades as the highest will always find a place. The prevention of waste

will add wealth to every channel of the orchard industry, and put orcharding upon a stable business basis.

In Lewiston Orchards, the selling movement has resolved itself into a definite plan for securing factories to work up the by-products of the Orchards. Mr. H. L. Powers is putting forth his best efforts to secure an immense canning plant, as well as adequate equipment for drying such of the 1913 crop as can be handled in this manner. In the establishment of a canning factory depends largely the profits for next season and also the assurance that the grade of green fruit shipments will be the highest that can possibly be obtained. Furthermore, there is a good market at profitable prices for the canned and dried product, with none of the hazards attendant upon the fresh fruit shipment.

APPLE EDUCATION

The publication in a recent issue of "Better Fruit" of "Two Hundred and Nine Ways of Preparing the Apple," was an intelligent recognition of the needs of apple education. The matter presented was originally prepared by an educator at the Washington State College for the National Apple Show, and was designed to enlighten the public as to the possibilities of the "King of Fruits" as a food.

Apple education needs to be extended in many directions. The public should be informed as to varieties, seasons, uses and characteristics of apples. As it is, an apple is merely an apple in many places, and the ignorance that prevails among apple dealers as well as consumers is dense and deplorable.

It has been proposed by some of the growers in Lewiston Orchards that every box of apples sent out be accompanied by a pamphlet on the uses and nature of the apple. This might do for the apple what has been done elsewhere for the lemon, orange and cranberry and thus greatly increase the demand for the right kind of fruit. Apple education should be encouraged by this and other fruit districts.

NOT TOO MUCH OF THE BEST

Reports of large production and reduced prices for fruit come from many directions. A careful observer will discover, however, that there is no crowding of the best kinds of fruit. The highest grades are always in demand at fairly remunerative prices. Herein lies

much hope for such a district as Lewiston Orchards, where the conditions of soil and climate are ideal for fruit production. The best in fruit as in other things is never much crowded.

SEEDING THE ORCHARDS

With the development of young orchards, comes the second stage of the orchard industry when inter-orchard crops can be displaced by seeding to alfalfa or clover. In this way, the soil is enriched, the fruiting of the trees is encouraged, labor of irrigation and cultivation is reduced and profitable returns are secured with moderate expenditure of time and labor.

APPRECIATED AT HOME

That the apples grown in Lewiston Orchards are appreciated in the home market, as well as at a distance, is a fact attested by the agreement of local dealers to handle practically all the available market output of the present season. Home consumers for home products will help the people of both communities concerned.

OUR APPLES IN THE EAST.

Three boxes of apples from Lewiston Orchards were shipped last month to R. L. Gordon, of the Standard Steel Car Company, New York, and, in acknowledging the receipt of the apples, Mr. Gordon says:

"They certainly are the finest eating apples I ever tasted, especially the Spitzenburg and Winesap varieties. I was particularly impressed with the solidity of them and their remarkably fine flavor. I passed a number of the apples around to my friends and they all agreed very enthusiastically with me. I believe you have solved the apple problem and know you will find a good market in New York. The apples all arrived in good condition."

WILLING TO HELP.

P. F. McAllister, a Lewiston Orchards owner, resident in Chicago, in a recent letter says:

"I see that the Orchards are sorely in need of a fruit dryer. Kindly record me in favor of same, and I am willing to assist so far as I can financially at the proper time. It seems to me that members of the Association could make back their money very quickly that would be required to build a dryer."

Praise of Orchards and City by Panama Exposition Official

HON. John A. Fox, commissioner at large for the Panama-California Exposition, spent several days here, in September, in the interest of the institution that he represents. He expressed himself as much impressed with the progress made since his first visit three years ago, when he was so pleased with the situation that he purchased a tract of fifteen acres in Lewiston Orchards, on Burrell Avenue and Sixteenth Street. Sept. 21, he was taken out over the orchards and given an opportunity of seeing the development that had been made.

"I have traveled all over the country and have been in every state in the Union and I can say frankly that these Lewiston Orchards are the most extensive and the most beautiful that I have ever seen," said Mr. Fox. "Nowhere in the United States do I know of an orchard of 6,000 acres in one continuous stretch so close to a city of this size and so well located for transportation as well as for irrigation. I don't think there is anything like it in the world.

"Lewiston should certainly be proud of this splendid enterprise, for in a very few years these magnificent orchard lands are going to bring thousands of dollars to this city. All of that 6,000 acres in five acre tracts is going to be a model city of homes in a few years, for those who have bought five, ten and fifteen acre tracts will be able to realize enough each year to give them a good income from the fruit.

"This will then be a city something like Pasadena or Redlands in California where a family can have their beautiful home in among the orchards and live a delightful life of culture with a substantial income of from \$3,000 to \$5,000 a year. The whole project is conducted on such a high class principle, too, that it cannot help but succeed, because those in charge of it are looking to the future and are not merely trying to sell land. I find them taking as good care of the orchards for those who are absent as they do of their own, and I was certainly surprised when I drove out yesterday and found the trees I saw planted on my tract three years ago in such fine condition, many of them bearing fruit. Why that whole 6,000 acres looks just like somebody's flower garden and I expect that it gets as much care.

"It is projects like this that will help develop this country, for one is made to feel that his interests are being looked after and you are pretty apt to get skeptical when you live 2,000 miles away and are constantly meeting people who have been swindled out of their money by some of the fake schemes that are promulgated out here in the west. I don't believe there is a cleaner, fairer or better managed project anywhere in the United States than the Lewiston Orchards. Now that sounds pretty strong to come from some one that has no reason to boost this or any other company, but I am saying it because I know of thousands of people out east who might have been doing just what I have done in investing here. We have so many land companies and co-operative fruit companies and orchard companies with representatives out there selling us gold bricks that we do not know the good from the bad and the consequence is that we are afraid of all of them.

"I am glad to see the improvement that you have made since I was here in the way of paving your streets and I want to congratulate the city on extending its boulevard out to the Orchard tracts. I cannot commend too highly the spirit that has prompted the people of this city to issue bonds for the building of the bridge, buying a site for the livestock show and for the construction of this boulevard extension. For such improvements as these serve as the best form of advertisement to strangers.

"The next thing, however, that this country should turn its undivided attention to is the better development of water transportation to this city. I do not believe that the business men themselves here give the matter sufficient study nor do I believe that they are themselves sufficiently informed to talk intelligently and convincingly of the value of an open river. Congress is now beginning to awaken to the importance of conducting these projects very much like it has constructed the Panama canal and if all of the country adjacent to, and capable of being served by the Snake and Columbia rivers will cooperate and push this project with earnestness and with a thorough belief in it, there is no reason why every senator and every congressman from this entire northwestern region should not be enlisted in the fight for it."

"Congress could well afford to spend one million dollars a year on this project until it was completed because it would not only be a boost towards developing this wonderful country, but it would enable the whole country to feel the benefit of the cheap transportation charges. It is particularly important just now because in two years the Panama canal will be a reality and we can get the manufactured products from Europe and from eastern seaboard points at all water rates when that is done as well as ship out the wool, the wheat and the fruit products of this great section.

"Lewiston with her wonderful position here on the Snake river enjoys a greater advantage than any city in this inter-mountain region because nowhere on the Pacific coast can a city be found that enjoys water transportation and is located so far in the interior. You ought to have the same advantage here that Buffalo had in the early days when the Erie canal was finished or that Pittsburg and St. Louis have on the Mississippi river. All that is necessary is to convince congress of the wisdom of spending the total amount needed as rapidly as possible.

"I understand that a celebration is planned here for 1915 and I think it a most admirable idea because there will be a great tide of tourist travel moving through the west that year to see our exposition at San Diego and the exposition at San Francisco and by holding a celebration here, you will give those travelers a reason to come around by the northwest either coming or going. Once they get into this country to see your exposition they will become acquainted with the opportunities for investment here and will do just as I did when I came here three years ago."

WILD BIRDS IN NOVEMBER.

Ruffed Grouse (protected), Chinese Pheasant and Quail, in the open stubble, along the canyons and wooded gulches. Fool hen in the timbered districts, Canadian gray goose, mallard ducks (in migration flight) and avocet along the streams, canyon creeks and open water.

Professor C. A. Cole will attend the Spokane show and will speak on the "Harvesting of Apples" at the growers' conference.

Eastern and Western Fruit Growing Compared

By Prof. W. S. Thornber.

IN the Country Gentleman for September 7 and September 21 there appear two very interesting articles entitled "The Chances for Eastern Apple Growers" and "Chances for Western Apple Growers" which all fruit growers both in the East and in the West should read and carefully study. These articles are prepared by Eastern men who have some general knowledge of Western conditions and while they set forth the Western conditions in a very attractive manner, the general tendency is to discourage or discredit Western apple growing as a whole.

I have gone over these rather carefully and I find some very interesting material carrying more or less facts and at the same time conveying rather erroneous impressions as to the actual conditions here in the West. The writers in both cases are evidently Eastern men with Eastern ideas and Eastern visions and strong prejudices for the East.

It seems to me that they have left out a few of the very important factors that should be considered in the comparison of apple growing in the two districts. I will briefly emphasize these factors with such comments as occur to me at the present time:

First, through the process of natural selection brought about by the more ambitious of the original families going West or to the large cities for two or more generations, the Eastern fruit growers and farmers generally have come to be largely composed of the seventh sons of the good old families. These people are good, honest, faithful, easy going farmers but men with narrow visions and little or no desire to take chances or change customs, while the Western fruit growers are largely composed of men with real business training, large visions and the determination to win at all hazards. The large visions and the ambition to do great things is probably brought about by the "bigness" of the West. Large areas of tillable land, high mountains, tall trees, great rapid rivers, invigorating mild climates, and the optimistic vision of the average Western man fairly intoxicates the Eastern farmer when he comes West, and develops in our young men all that is best in Western farmers and fruit growers.

Second, the clear, cloudless skies and very transparent atmosphere for a large portion of the growing season and particularly during the period of the ripening of the fruit, gives color and finish that cannot be found anywhere else in the world. A hazy, muggy atmosphere during certain periods of the growing season may under certain conditions develop thinner skins on apples, but fails to develop color, finish and quality like the clear, bright, sunny days of the West.

Third, The factor of quality of irrigated as compared with non-irrigated fruits is, has been and always will be the war club of the non-irrigated districts. The average grower willingly grants that certain varieties if not properly irrigated are inferior in quality to fruit from non-irrigated districts, especially where the moisture conditions during the growing season in the non-irrigated districts have been favorable. This is equally true of improperly grown hot house vegetables as compared with outdoor grown vegetables, but any grower knows for the best conditions of quality and crop the tree must have a definite amount of moisture and a normal atmosphere, and that this can be secured only where men have absolute control of at least the important factor, that is the soil moisture. More apples are made unfit for market each year in the East through lack of moisture or excess of moisture, than any other crop determinant.

Students of Western Pomology who have had an opportunity to compare and study the behavior of certain varieties both of the East and of the West, know only too well that the quality as well as the color, shape and size of fruits and the bearing habits of the tree vary under different conditions. Common examples of this variation are found in the Northern Spy. As it grows in the West it is a mild, pleasant flavored apple but as grown in the East it is a brisk, keenly acid fruit. The Rambo grown in the East is a sweet, pleasant flavored fruit but in the West becomes a rather flat, insipid flavored fruit. The Ben Davis family anywhere under a shortage of water is a hard, corky, unpalatable fruit. So while certain varieties may lose some of their flavor in being grown in the

West, certain other varieties gain factors that make them even more desirable. As an example, there is no comparison between the Spitzenberg apple of the East and the Spitzenberg of the West.

Fourth, Another important factor is the large percentage of second, third and fourth grade fruit common in the Eastern orchard as compared with the small percentage of the same grades of fruit in the Western orchard. This is probably due to soil, climate and conditions brought about by intelligent management of the orchards.

Fifth, The disadvantage of orchards being surrounded by broad leaved forest trees can not be compared with the absolute absence of those forest trees in the West, or the presence of the Evergreen trees harbor few or none of these leaved trees are serious harborers of many orchard enemies while the Evergreen trees harbor few or none of these pests.

I personally cannot understand why a publishing company with the reputation, honor and rural following all over the United States that the Curtis Publishing Company has, should permit anything to be printed in their valuable papers that is misleading in any way or unfair to any agricultural community.

In conclusion will say, that the whole purpose of those two articles seems to be to place the Western apple growers in a bad light as compared with the Eastern growers in general.

A HOME CANNERY

An interesting experiment has this season been made with a home cannery, on a modest scale, by C. R. Burns, one of the pioneer residents of the Orchards. A Stahl canner was used, and about 1,000 cans each of peaches and pears were put up, each can being of the two-pound or one-quart size.

The product was sold to a local mercantile house at a price that afforded a fair margin. Mr. Burns expresses the opinion that when good peaches sell for less than forty cents a box they can be used to advantage in the cannery.

The "Turkey Trot" toward the Thanksgiving table will soon be in order. The big birds do well in the orchards.

Correspondence Course, Lewiston-Clarkston School of Horticulture

By Professor W. S. Thornber

GENERAL FRUIT GROWING.

Assignment Number One.

The purpose of this Course is to prepare you for intelligent orchard work, and while much can be done to help you, you must avail yourself of every possible opportunity to see the practical application of the general principles of the work. Endeavor so far as possible to form definite conceptions of what is best, from orchards and trees in your immediate community. Faulty as they may be, they will help you in obtaining a real rather than an imaginary conception.

Inasmuch as you are expecting to embark in orchard work under Western conditions, I would suggest that you subscribe for at least one of the following Western fruit papers, which will aid you in forming Western conceptions:

BETTER FRUIT, Hood River, Oregon, \$1.00.

THE FRUIT GROWER, St. Joseph, Mo., \$1.00.

I am requesting each publisher to mail you a sample copy of his paper so that you may judge for yourself.

READ

Chapters One and Two,

"How to Make a Fruit Garden."

Chapters One and Two,

"Principles of Fruit Growing."

STUDY THE FOLLOWING FACTORS:

I. General factors.

- a. Location, community, transportation.
- b. Site, slope, exposure.
- c. Soil, physical condition, depth, fertility, drainage.
- d. Temperature, climate, growing season.
- e. Moisture and Irrigation.
- f. Orchard enemies and their control.

II. Wind Breaks and Shelter Belts.

- a. Advantages.
- b. Disadvantages.

III. The problem of late spring frosts.

- a. Well air drained lands.
- b. Mulches, covers, etc.
- c. Irrigation and sprinkling.
- d. The smoke blanket.
- e. Heating the air.

The Principles of Fruit Growing (Bailey), \$1.50 and The Pruning Book (Bailey), \$1.50 are published by the MacMillan Company, New York City,

N. Y. How to Make a Fruit Garden (Fletcher), \$2.00 is published by Doubleday Page & Co., New York, N. Y.

ORCHARD PESTS.

Assignment Number One.

The various texts upon orchard pests are all more or less technical, and while it is easily possible to obtain a fairly satisfactory knowledge of the various troubles, yet it requires time and practical field experience to obtain a thorough knowledge of the pests.

This course is intended to pave the way for the field experience that growers will naturally get and will be found of great value in preventing loss of crops.

The book "Diseases of Cultivated Plants" by Masse is very valuable but is rather technical for a beginner and so for this reason we will leave it optional with you as to whether or not you purchase it. Its chief value is, as a cross reference book.

I would suggest that you write to the Secretary of Agriculture at Washington, D. C., for the following Farmers' Bulletins: Nos. 30, 91, 99, 127, 145, 155, 231, 243, 246, 275, 283, 284, and 306.

READINGS:

Read the first 68 pages in "Diseases of Economic Plants" (Stevens & Hall), and Chapters I, II, III, IV, Economic Entomology (Smith).

IMPORTANT FACTORS:

- I. Symptoms of Disease.
 1. Rot, blight, wilt, spots, etc.
 2. Mildew, rusts, chlorosis, canker, etc.
- II. Methods of Prevention.
 1. Removal of diseased parts.
 2. Plant immune varieties.
 3. Spray fungicides.
 4. Crop rotation.
- III. Spraying as a Business Proposition.
 1. As a preventive.
 2. As a destroyer of pests.
- IV. Soil Diseases.

ECONOMIC ENTOMOLOGY:

1. Study the structure of insects as a means of determining their weak places.
2. Study as groups. In case you desire to group them for combating purposes.

Diseases of Economic Plants (Stevens & Hall) and Diseases of Cultivated Plants (Masse) are published by the MacMillan Co. New York City, N. Y. Economic Entomology (Smith) is published by the Orange Judd Co., Chicago, Illinois.

LANDSCAPE GARDENING.

Assignment Number One.

The study of beautifying home grounds, parks, reserves and play grounds is a division of horticulture which after once gaining a hold on a person continues to grow and always remains a source of great pleasure.

Rarely does it become a factor of financial importance, however. No plantings or improvements of any kind ever become more profitable in the time of sale than carefully selected, properly arranged ornamental plantings about the home.

The work of this Course while of a very elementary nature will be found to be of great value to any one having little or no experience along Landscape Gardening lines.

Write the Secretary of Agriculture, Washington, D. C., for Farmers' Bulletins Nos. 185—Beautifying of Home Grounds, 199—Annual Flowering Plants, and 248—The Lawn.

READ

Chapters One to Nine "Landscape Gardening" (Waugh).

STUDY

- I. Schools of Landscape Gardening.
 1. Natural or English.
 2. Architectural or Formal.
 3. Picturesque or Rugged.
- II. Factors combining to form each type.
- III. Factors non-harmonious.
- IV. The principal factors of the art.
 1. Unity.
 2. Variety.
 3. Character.
 4. Propriety.
 5. Finish.
- V. Draw a simple plan of the best place you know.

Landscape Gardening (Waugh) and Home Floriculture (Rexford) are published by the Orange Judd Co., Chicago, Ill. Landscape Gardening as Applied to Home Decorations (Maynard) is published by John Wiley & Sons, New York City, N. Y., but may be ordered from the Orange Judd Co., Chicago, Ill.

SOILS.

Assignment Number One.

The work of this Course while not specifically prepared as a part of any other Course is the fundamental course of general agriculture and horticulture, and while difficult to understand without a working knowledge of botany, chemistry and geology, a careful student though unversed in these Sciences may gather a vast fund of useful knowledge that is applicable to daily field work.

The texts to be used vary from an elementary reading course to a difficult science course. No one should attempt this course who is not willing to make a thorough study of the matter presented.

READINGS.

The first two months' work will be confined to Soils, by Fletcher, a very readable rather introductory text. Read Chapters I, II, III, IV, V, VI, VII, VIII, IX.

I. Formation of Soils.

1. The weathering of rocks.
2. The decomposition of plants.
3. The work of animals.
4. Wind, water, etc.

II. Soil particles and combinations.

1. Classes of soils; clay, sand, etc.
2. Soil moisture, quantity and movements.
3. The germ life of the soil.
4. The plant foods of the soil.

III. The tillage of the soil.

1. To destroy objectionable plants.
2. To conserve moisture.
3. To make plant food available.
4. Implements for tillage.
 - a. The Plow.
 - (1) Kinds of plows.
 - (2) Objects of plowing.
 - (3) When and how to plow.
 - b. The Harrow.
 - (1) Kinds of harrows.
 - (2) The uses of the harrow.
 - c. Other Tools.
 - (1) Roller clod mashers, hoes, etc.
 - (2) Purposes, dangers.

IV. Drainage factor of the soil.

1. The necessity for drainage rare in the West.
2. How to drain soils.
3. The effect of drainage.

Soils (Fletcher), \$2.00 is published by Doubleday Page Co., New York, N.

Y. Soils (Hilgard), \$4 and Soils (King), \$1.50 are published by MacMillan Co., New York, N. Y., and Soils (Warrington), \$1.50 may be ordered through the Orange Judd Co., Chicago, Ill.

VEGETABLE GARDENING.

Assignment Number One.

The readings of this Course will be primarily along the lines of practical vegetable garden work, however, one text "Garden Making" will deal with gardening in a broad sense.

In addition to the regular assignments, you will be requested to secure at different times such bulletins and booklets as we find it advisable and profitable to use during the Course.

Endeavor so far as possible to familiarize yourself with local vegetable garden work and watch the varieties of vegetables as they appear upon the markets. The vegetable markets generally are more particular about the grade than the variety or color.

Request the Secretary of Agriculture, Washington, D. C., to place your name and address upon the mailing list for Farmers' Bulletins and request the following at once: 35, 61, 91, 204, 220, 254, 255, 289, 354, 365, 386 and 407.

READINGS.

READ

Chapters One, Two and Three.

Principles of Vegetable Gardening (Bailey).

Chapters One, Two, Three and Nine. Vegetable Gardening (Green).

STUDY THE FOLLOWING FACTORS:

I. General.

- a. Location, with market possibilities.
- b. Climate, early spring and late fall temperature.
- c. Soil, depth, physical condition, drainage.
- d. Fertilizers—barnyard and commercial.
 - (1) Value of different kinds.
 - (2) Effect of available plant food.

II. Special.

- a. The use of hot beds and cold frames.
 - (1) Hand boxes, tomato plants and vine hills.
 - (2) Cold frame for very early plants.
 - (3) Hot beds for very early crops.

- (3) Green houses a winter factor.

Principles of Vegetable Gardening (Bailey), \$1.00, are published by the MacMillan Co., New York City, N. Y. Vegetable Gardening (Green), \$1.00, is published by the Webb Publishing Co., St. Paul, Minn., but may be ordered from the Orange Judd Co., Chicago, Ill.

IRRIGATION.

Assignment Number One.

The purpose of this course is to study the use of water for irrigation purposes from the point of view of farmer or fruit grower rather than an engineer's point of view. To a very large degree the service of the professional engineer ceases with the delivery of the water to the lot or unit holder's property and then it becomes a question of distribution application, and results rather than of technical engineering. While it would be valuable for every owner to have a concrete knowledge of water sheds, streams, dams, falls, canals, pipes and systems, it is impossible for him to gain this knowledge without careful training along several lines in some technical institution or through long personal application to the work.

To many people who are not familiar with the use of water, the irrigation of crops is a very difficult, mysterious task and one that none but a professional irrigator should attempt.

Irrigation, like many other agricultural practices, requires an abundance of common sense, and the more thoroughly a person can study the soil, slopes and effect of the climate, the more successful he will be.

Every reader following this course should secure at once from the Secretary of Agriculture at Washington, D. C., the following Farmers' Bulletins which are free to all: Nos. 138, 158, 263, 266, 371, 373, 399 and 404. The publications will be referred to at various times during the year.

READINGS:

Chapters One to Eleven, inclusive, of Irrigation Farming (Wilcox).

Chapters One to Seven, inclusive, of Irrigation for the Farm, Garden and Orchard (Stewart).

STUDY THE FOLLOWING FACTORS:

1. Irrigation eliminates the principal crop determinant, drought.

(Concluded on page 10)

Some of the Essentials in Growing Geraniums

By C. A. Cole, Horticulturist

WHILE the geranium is one of our most cosmopolitan plants, thriving in all kinds of home and conditions, yet it will readily respond to careful treatment. The average person who grows this plant seems to think that if it produces some foliage and now and then a cluster of flowers, that is all it can be expected to do.

In order to produce plants of the highest efficiency we must do three things; that is, to use the proper kind of soil, water carefully and renew the plants at least every two years. The soil is very important. One can be made as follows that gives excellent results: Take one-third garden loam, one-third sand and one-third well rotted stable manure. Mix thoroughly and break up all large lumps. Store this soil where it will not be rained on. In potting the plants shake all the dirt off the roots, place a small flat stone, a piece of crock or dish over the hole in the bottom of the pot, then throw in a hand full of soil, place the plant in the pot and fill up full with dirt, then press down tight. After the soil is pressed down there should be at least one inch of the top of the pot not filled. Now water by filling this space, keep watering until moisture appears at the hole in the bottom of the pot. The plant should be protected from the sun for a few days after watering. The sub-

sequent care of the plant will be keeping the dead leaves off and watering whenever the soil begins to dry out. Don't add a little water every day, but wait until the plant needs it, then give a thorough soaking. Keep the plant in a moderately warm room. The plant must be replanted, that is, given fresh soil, at least once each year. The best time to do this is in the fall about November.

Plants given the above care will give excellent results for about two years, when they will begin to get "leggy." "Leggy" plants are never attractive, yet nine out of every ten you see are in this condition. The only remedy is to renew the plant. The remedy is very simple. Take an old plant that has a good number of shoots three or four inches in length, that are fairly well matured. The condition of the wood such as you find in a shoot with a blossom is just right. Cut off as many of these shoots as are needed. Trim off all the leaves except one at the top and the small center buds. If the cuttings are over three inches long, cut to that length. When cuttings are made, wrap in wet paper until ready to use. For rooting cuttings nothing is better than a perfectly clean sand. Make a small box 3 inches deep and large

enough to hold your cuttings. If a box larger than 18x18 inches is required, use more than one. Be sure that there are holes in the bottom of the box for drainage. Fill box with sand and pack down solid. Take a flat piece of wood or a knife and make a hole in the sand, place in a plant or cutting so that one inch of the top is above the surface and press the sand firmly around it. Set plants about two inches apart on the square. Water the sand until the surface is packed down smooth. The box should be set in a warm place until growth starts. Keep out the direct sunlight. As soon as roots are formed pot off.

This work can be done any time that the material can be obtained. However, the best time is just before the frosts set in. As soon as spring opens up these little plants can be set out of doors in a well prepared bed, where they will bloom profusely until fall, then pot them and take indoors for the winter. Better house plants can be made by not setting out in the ground. Very often outdoors plants get too large for house plants.

Don't set a small plant in a large pot or a large plant in a small pot. As soon as a mass of roots begin to form between the pot and soil, it is in the condition known as "pot-bound" and should be transplanted into a larger pot.

GIVE NO PROXIES.

The Lewiston Orchards Association will hold its Annual Shareholders' Meeting in January.

During November the Annual Election of Officers in the Lewiston Orchards Assembly will take place. It is especially desired that a good, active, wideawake set of officers be secured. Much that is of vital interest to all owners will depend upon such selection. The matter of general street betterment and county road improvement will receive its direction from the Assembly. The Life has received inquiries from non-resident owners asking as to the advisability of giving proxies. Our answer is that an unwise or uninformed vote is worse than no vote and this fact is equally true in the present instance. Give no proxies whatever to aid in elections of any officers or directors unless you are actually acquainted with the calibre and executive ability of the one who seeks your vote or proxy.

Without such definite knowledge of the individual candidate for President, Vice-President, Secretary, Treasurer or Director, it would be far preferable to refrain from voting or granting proxies in order that these important matters may be worked out by resident owner members here who are in touch with the situation.

The Country Gentleman, the oldest Agricultural Journal in the world, has been printing some very excellent articles on fruit growing. All sides of the phase from Eastern vs. Western growers to overproduction have been considered. A general summary appears in the November 2nd issue, in which it states: "There has been a very substantial increase in the number of bearing fruit trees in the United States during the past ten years. The decrease in apple trees in the decade was fifty millions or twenty-five per cent. The de-

crease in bearing peach trees was five millions or five per cent and there were like decreases in plums, cherries, apricots and other tree fruits." Meanwhile, the population has increased phenomenally and the tendency to buy prime fruit increased even more.

Orchard pests are claiming thousands of trees annually from fruit men who will not spray. Only a small fraction of the young trees planted each year ever bear fruit. The annual increase of product from the young trees will hardly make good the loss from the old trees, yet our markets are increasing.

A closing paragraph to the article very amply sums up the story:

"The alarm need not disturb the careful grower; it is only the dirge of the careless and foolhardy who are foredoomed to failure. There were never better opportunities ahead for the capable fruit grower. Skill in orcharding is demanding a premium and is assured of getting it."

An Ideal Place for Orchards and Homes

By Arthur G. Lewis

THE first time that we saw Lewiston Orchards, a little over two years ago, we believed in them, but at that time we saw them first of all as a great fruit district only, and had but a vague idea of all that they are besides an "apple factory." On further acquaintance, however, and after several months' residence in the Northwest and in Lewiston in particular, we think we have arrived at the real significance of Lewiston Orchards. We look upon the "Land of Sunshine" as the ideal place for a home, the fruit industry here as a magnificent enterprise, worthy of the best efforts of the most capable men, and above all believe that the clean, free, out-of-door life led by orchardists in such a beautiful country as this, is a powerful force in the making of good citizenship.

The climate of this wonderful valley has been a constant source of pleasant surprises for us. A good climate is without doubt one of the greatest assets a district can have. Without it a country with great opportunities is handicapped because its citizens are not physically capable of making the most of their opportunities. Lewiston climate co-operates with a productive soil to produce wonderful results, and even with a soil only half as good the invigorating atmosphere and the abundance of sunshine would stimulate men to produce results in spite of obstacles. Of course there is rain as well as sunshine even in this paradise, and what sort of a paradise would it be without it? The best thing about it is that it rains according to a well defined schedule and keeps to that schedule with surprising regularity. It is always on the job during the winter when we can use it profitably, and keeps away in the summer and does not interfere with our work. The fact that the past year has been a little unusual in this respect does not alter the truth of the statement. There have been times when the best regulated N. P. trains were off schedule one way or the other, usually the other.

Almost as important as a good climate in the selection of a place to live, are pleasant surroundings and in this respect Lewiston Orchards are fortunate. The scenic beauty of the valley is unparalleled and from no place but the Orchards can such a comprehensive

view of it be obtained. Residents of Portland Heights, the observatory section of the Oregon metropolis, have little if any advantage over those who will build their homes in the vineyard overlooking the cities of Lewiston and Clarkston, and the view from the south side of the tracts where we are to build our home is one of unusual grandeur. The panorama from the Snake river canyon to the west, to the Bitter Root mountains on the northeast, taking in the Blue mountains, Tammany valley, the Waha prairie and the Craig mountains, presents a truly majestic scene. The Palouse hills, too, with their beautiful ever changing colors, are seen at their best from here.

The nearness to the city of Lewiston with the advantages of city life, played a large part in attracting us to the Orchards but more than this the fine class of people already here and the knowledge that a district of this character always attracts more of the same sort, make us feel proud and glad to be members of such a community.

The future of the fruit industry in Lewiston Orchards is assured. The success of the older districts has demonstrated what can be done in the fruit line and the marked superiority of Lewiston over many of these districts lead to the conclusion that even greater success is in store for us. The uniform scheme of development, the perfect irrigation system, the wise choice of varieties planted and the scientific manner of carrying out this work has kept the business within strictly practical lines, and the co-operation of the Orchards Association, together with the aid of the horticultural department of the company, makes it possible for all to succeed. We have no fear of overproduction of fruit. The number of localities where apple culture can be commercially successful for any length of time is limited, much more so than is commonly supposed. This being the case, and taking into consideration the fact of enormously increased consumption of high grade apples, the outlook for the few really good fruit districts is, without exception, a very bright one. In choosing Lewiston Orchards as our field of operations, we believe that we have picked the prize winner of these favored few. Here results are not only sure to come,

but the chances are that they will be big results.

The city of Lewiston is the natural commercial center of a rich territory, the resources of which have not begun to be developed. The citizens of both the city and the orchards are public spirited and are united for the improvement of the whole district. Every element is working for progress and under these conditions it is easy to see a little something of the future. The time is coming when Lewiston will be one of the chief cities of the great West, which as everyone knows, is the best country in the world, and Lewiston Orchards will be known everywhere as the home, not necessarily of the biggest apples but of the BEST apples. This is not an overly optimistic prediction, but is an inevitable result of natural conditions, combined with the best brain and brawn in the land.

We like Lewiston and Lewiston Orchards and we believe in their future and we are going to be on deck all the time to do our share in the making of that future.

The second annual announcement of the Lewiston-Clarkston School of Horticulture is in press and will be ready for distribution early in December. Besides the names of the instructors the book covers the scope of work for the mid-winter term and a list of the 149 students enrolled for the lectures, field demonstration and horticultural instruction given during January and February last.

Hiram E. Repp of Culdesac attended the state sale of school lands in Lewiston during October and incidentally looked over his ten acre orchard of apple trees just finishing their third year's growth.

Professor W. S. Thornber acts as apple judge this month at the National Apple Show at Spokane; and at the Pacific Northwest Land Products Show, at Portland, Oregon.

C. L. Smith, horticulturist, formerly with Lewiston Orchards, now agriculturist for O.-W. R. & N. R. R., spent three days in the Orchards during October.

Robert Emmett of Genesee spent one day in his orchard in October. His six year old trees are looking fine.

A Farmers' Institute in the Orchards

Under auspices of the Lewiston Orchards Assembly, a farmers' institute has been arranged by Professor W. S. Thornber, to be held in the Orchards, Nov. 25 and 26. There will be three speakers from the state college at Moscow and four from the state college at Pullman. Sessions will be held morning, afternoon and evening, with a special afternoon session for women, in domestic science. Horticultural, agricultural, dairy and other topics will be treated, some in illustrated lectures.

The University of Idaho, at Moscow,

will be represented by Professors W. H. Olin, C. C. Vincent, E. J. Iddings and J. F. Nicholson and Miss Jessie Hoover. The speakers from the Washington state college at Pullman will be Professors R. C. Ashby, W. G. Brierley and A. L. Melander.

The program will be as follows: Nov. 25, 10:00 a. m., opening address, Prof. W. H. Olin; "Orchard Diseases," Prof. C. C. Vincent. At 1:30 p. m., "Live Stock and the Orchard," Prof. E. J. Iddings; "Orchard Management" Prof. C. C. Vincent. Women's session, 1:30 p. m., Domestic Science, Miss Jessie Hoover. General session, 7:30 p. m., lecture,

"Swat That Fly," Prof. John F. Nicholson; illustrated lecture on Idaho, Prof. W. H. Olin.

Nov. 26, 10:00 a. m., "Harvesting, Packing and Selling," Prof. W. G. Brierley; "Orchard Insects," Prof. A. L. Melander. At 1:30 p. m., "Poultry," Pullman party; "The Production of Pork in an Orchard District," Prof. R. C. Ashby; "Small Fruit," Prof. Brierley. Women's session at 1:30 p. m., domestic science, Pullman party. General session, 7:30 p. m., "Care and Management of Domestic Animals," Prof. R. C. Ashby; illustrated lecture, Prof. A. L. Melander.

Correspondence Course, Lewiston-Clarkston School of Horticulture

(Concluded from page 7)

2. The effect of water on plant foods.
3. Different soils take water differently.
4. Evil effects of irrigation.
5. Methods of conducting water.
6. What is meant by "The Duty of Water"?
7. The value of liquid manures.

Irrigation Farming (Wilcox), \$2.00 and Irrigation of the Farm, Garden and Orchard (Stewart), \$1.00, are published by the Orange Judd Company, Chicago, Illinois.

HARVESTING, MARKETING AND STORING OF FRUIT.

Assignment Number One.

The successful marketing of farm crops, and particularly those of the orchard and garden, has come to be one of the most serious problems confronting the growers of the present day. One of the principal reasons for this condition is due to the fact that a very small percentage of the successful growers are good sellers of their product. This is reasonable inasmuch as a man to be a successful grower must be constantly studying the grower's problems and has little or no time to look for markets. However, there are phases of marketing that every grower should know and those are harvesting, packing and storing crops.

There is very little literature upon this subject but all should secure the following list of publications, as they are valuable:

COLD STORAGE.

Bulletin 74. West Virginia Experiment Station, Morgantown, W. Va.

Bulletin 93. New Hampshire Experiment Station, Durham, N. H.

Bulletin 48. Bureau of Plant Industry, Washington, D. C.

Practical Cold Storage by Madison Cooper, Watertown, N. Y.

Precooling of Fruit (Article), Yearbook 1910, U. S. Dept. of Agriculture, Washington, D. C.

HARVESTING, PACKING, ETC.

Bulletin 54. Idaho Agr. Exp. Sta., Moscow, Idaho.

Bulletin 94. Oregon Agr. Exp. Sta., Corvallis, Ore.

Bulletin 298. New York Exp. Sta., Ithaca, N. Y.

Farmers' Bulletins Nos. 262, 291, 359, 426, Secretary of Agriculture, Washington, D. C.

UNIONS AND SALES ORGANIZATIONS.

Bulletin 97. Agricultural Exp. Sta., Columbia, Mo.

Bulletin 18. Dairy and Cold Storage Series, Department of Agriculture, Ottawa, Canada.

READING:

Part One, "The Fruit Market."

Fruit Harvesting, Storing and Marketing (Waugh).

STUDY THE FOLLOWING FACTORS:

1. Best markets.
2. Commission men's methods.
3. The selling associations.

4. Production and overproduction.

5. The utilization of waste.

Harvesting, Storing and Marketing of Fruit (Waugh) is published by the Orange Judd Co., Chicago, Ill.

GOING AND COMING.

H. H. Smith has had as a recent guest his mother, from Seattle.

Mr. and Mrs. Bishop, of Chicago, has been visiting her daughter Mrs. R. T. McUmber.

Mr. and Mrs. F. D. Webb who have been absent for a month in Chicago, have just returned.

W. H. Webb and family will spend the winter on their ranch on the Clearwater.

Mr. and Mrs. Archie Leighton, of Winona, Minn., were guests for a few days last month of S. W. Whitford and family, on Burrell avenue. They had been spending two months in a tour of the Pacific coast, visiting San Francisco, Portland, Wenatchee, Seattle, and other points. Mr. Leighton is a conductor on the Chicago & Northwestern railroad.

Campbell Kennedy has returned from North Yakima, where he had employment in packing apples with the Yakima County Horticultural Union. He expresses himself as better pleased than ever with Lewiston Orchards.

Lloyd L. Detrick has returned from North Yakima, where he took a course of training in apple packing and grading, finding it a very interesting and profitable experience.

October ended with a white frost on the 31st, and the lowest temperature for the month.

Fruitful Young Trees in Lewiston Orchards

A FIVE year old Rome Beauty tree producing three boxes of fine, clean, first class fruit. One would not fail to admire the vigor of the tree, the freshness of the fruit, and its freedom from bruises and fruit pests, because it is a

was badly out of shape; however, it is good shape that permits lots of sunlight and air to enter, and just as soon as the fruit is removed the limbs will gradually begin to go back to their proper position and the tree can again take on its

first six years of its bearing age produce two or three times as much fruit as its aristocratic relative, the Spitzenberg.

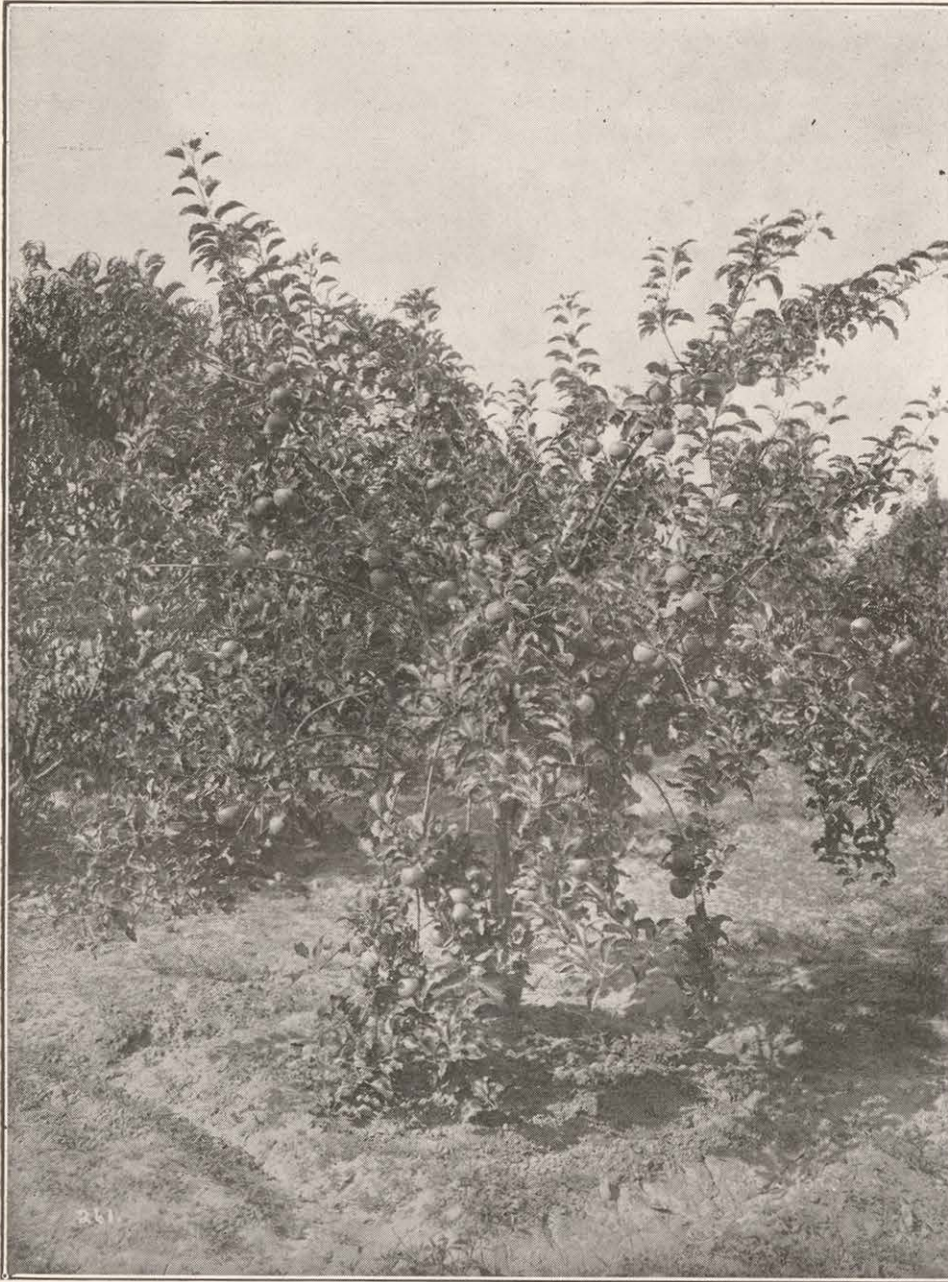
Five acres planted to Jonathan and Rome Beauty as both filler and permanent trees should produce 32,240 boxes during the six years following the seventh year of the orchard. These figures are based on the planting of 40 permanent and 40 filler trees per acre. The returns are nearly equivalent to 52 carloads of fruit.

This is the first bearing season, in a commercial way, for Lewiston Orchards. From some of the trees in the third year of growth, and from most of the trees in the fourth, fifth and sixth seasons, at least samples of fruit have been obtained; while, from such varieties as Jonathan, Rome Beauty, Winter Banana and McIntosh Red, an initial crop of fair proportions has been harvested. Illustrations in this issue show some of the young bearing trees.

The ten acre orchard of F. D. Webb, now in its sixth season, contains besides the peach fillers, about 100 of the Spitzenberg, from which 15 to 20 boxes of fruit are taken this year, 50 of the Rome Beauty, which bear 10 boxes, a dozen Jonathans, affording as many boxes, and 300 Newtowns, which produced 15 to 20 boxes of fruit. Some of these trees, with their highly colored fruit, present a most beautiful appearance, especially the Jonathans and Rome Beautys, which are hung full of fruit.

The five-acre orchard of N. J. Badger, now in its fifth year, has perhaps the largest apple crop in the orchards this season. His varieties include Jonathan, Rome Beauty, Winter Banana, Wealthy and Spitzenberg. His orchard is an interesting example of the extreme in absence of pruning, practically no pruning having been done since the second year. Mr. Badger is following out his own ideas in the shaping of the trees, their early bearing habit being one result of his methods. Another feature of his plan is the inter-cropping of the orchard with clover and corn, which has also stimulated early bearing.

P. H. Mullarky, who harvested a peach crop of about fifty tons from ten acres this year, has about 1,200 apple trees on fifteen acres this year, and will take from the trees this season several hundred boxes of apples, chiefly Jonathans. The trees are mostly in their



Five-Year-Old Rome Beauty Apple Tree, Lewiston Orchards

real pleasure to raise such choice fruit. While it is natural for some trees to produce well colored fruit, yet the environment under which they grow, the cultivation, the irrigation and spraying at the right time and proper methods of pruning, together make possible fine individuals.

The tree at the time of this picture

symmetry and form.

By proper horticultural practices, trees of this kind can be made to produce a very high percentage of first class fruit that will always sell at fair profit to the grower.

While the Rome Beauty is not as high a quality apple as the Spitzenberg, it is a profitable variety and will during the

sixth season. Mr. Mullarky's orchards show the most careful attention as to cultivation, irrigation, pruning and spraying, and the trees have responded with a splendid growth.

The ten-acre orchard of E. D. Potvin, now in its fifth year, planted to apples and pears, has this year one of the best crops of pears in the Orchards, the varieties being chiefly the Comice and the Beurre de Anjou. The fruit was large and beautiful in appearance and splendid in quality, and was readily marketed.

The Oregon-Idaho Fruit Company, in its seven-acre vineyard, elsewhere illustrated, has an example of the great possibilities of the district for the production of European grapes, the variety here grown being chiefly the Tokay. From this tract about three carloads of fruit were taken this season. The first carload shipment to eastern markets, and the first of the kind ever sent out of the valley was made Oct. 4.

INTERESTING COMMENT BY INTERESTED PEOPLE.

To A. F. Lewis:—The box of apples certainly deserve the name Rome Beauty. Finer apples you could not wish for and for flavor and juice you cannot beat it; some of these York State Knockers ought to be filled so full of this juice that they will never forget the Western apple. Every one who had the pleasure of getting one of these apples pronounced them the best they ever had. Not only to be polite—but they meant it.—William Frederick Remer.

Thornton Wallace of Kellogg, Idaho, where he has been engaged in the mines for the past thirteen months, returned for a visit during October. "The Orchards look fine—twice as well as I expected to see them. We can hardly wait to build our house on our property."

C. A. Woodmansee, formerly with C. D. Peacock, Incor., arrived from Chicago in October and immediately took up his residence in the Company's pretty bungalow, Block 25, on Bryden avenue, but now has built a most cosy home on his own orchard property. The place is but 14x40, but provides the comforts and will later on be used for other purposes when the permanent residence is constructed. Mr. and Mrs. Woodmansee and their two little sons, Marshall and Wesley, are already occupying their new home.

LEWISTON ORCHARDS SCHOOL.

The new Lewiston Orchards school building was opened Oct. 28 and has an enrollment of 33 pupils, about evenly divided between the two rooms. Miss Nina Middlekauff, who comes highly recommended from the Michigan schools, is principal, and Miss Emma S. Quayle, from the public schools of Hammond, Ind., a suburb of Chicago, is teacher of the primary grades.

Miss Quayle is now drilling the children for a juvenile cantata, to be given under the auspices of the school, just before the holidays. The cantata is entitled "A Dream of Fairyland" and all the children of the school will take part, with others from the Orchards tracts. One purpose of the entertainment is to raise funds for the purchase of a phonograph or victrola for the school. There will be good fairies, evil fairies, sprites and other characters.

HOME HAPPENINGS.

A new daughter arrived at the home of Mr. and Mrs. A. H. Chase, Oct. 20.

"Fruit Buds" was the subject considered by Professor Thornber, at the meeting of the Boys and Girls' Agricultural Club, Nov. 9.

Mr. and Mrs. H. L. Powers and family have taken up residence in Lewiston for the winter but Mr. Powers is still obliged to divide his between Lewiston and Portland.

Cuts used in Lewiston Orchards Life are from photographs taken by Mr. Bruce Burns. He does beautiful work and many of his views cannot be excelled.

The pocket gopher is causing some trouble to growers. While the animals may be either trapped or shot, the best remedy is to dig down into the holes, and place there pieces of carrots containing a few crystals of sulphate of strychnine. Where the gophers are working among carrots a dried prune may be substituted.

The "El Filiria" has sprung up generally throughout the Orchards and present the appearance of a rich mat. The younger trees which are still in foliage stand out clearly in sharp contrast with the deep green covering to the soil thus forming a very pretty picture. They have been coated with a preparation made from the following formula: Ten gallons whitewash, five pounds sulphur, five pounds whale oil soap, or tobacco soap, and one quart creosote. This serves to keep off rabbits and is a most

excellent tonic for the bark of these young trees.

The auto truck took a load of orchardists to the Borah meeting in Lewiston, Oct. 21.

C. O. Bailey and F. B. Laing were elected justices of the peace and Geo. E. Ames constable, for the Orchards Precinct.

The first political meeting in the Orchards was held by the socialists, Oct. 29, and the second by the republicans, Nov. 4.

Hon. J. L. Goodnight was successful in his candidacy for the state senatorship on the republican ticket, and polled over 100 votes in the Orchards Precinct, where he lives.

Robert G. Bailey is touring the surrounding country in the interest of his publication, *Western Poultry*, the second number of which recently appeared, showing improvement even over the first good issue.

J. E. Butler will take to the Land Products Show at Portland this month his exhibit from the Orchards that won over \$300 in premiums at the fairs at Spokane and Lewiston-Clarkston.

J. E. Butler and family leave this month for Fresno, California where they will spend the winter.

Mrs. J. W. Wilkes, an owner of tracts in the Orchards, died at Grangeville, Oct. 24, and was buried on the following day. She had been ill for some time, but her condition had not been considered serious, until a few days before her death. Mr. Wilkes was summoned from Alberta, but arrived after his wife's death. She was 33 years of age and leaves no children.

W. S. Shearer, of the school text-book publishing firm of Newson & Co., New York, spent several days here early this month. Mr. Shearer has a tract here and noted marked growth of trees throughout the Orchards since his visit a year ago.

David A. Smith will start, Nov. 16, a children's class in dancing, physical culture and expression. It will meet weekly on Saturday afternoons at 2:30 o'clock, and parents of the pupils are welcome to attend.

Geo. T. Bost an owner from Portland has spent the last three months in Lewiston working at his trade with Contractor C. M. Gunn. Mr. Bost is reported to be a fine workman. He will leave about Christmas for North Carolina on a visit to his old home to see his people.