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Authoritative Facts

on

Fall Planting

The several letters reproduced here are absolute copies we received in response to a letter we sent asking for opinions on the advisability of fall planting.

We want you to read them thoroughly and carefully and be governed by them in ordering your nursery stock.

Stark Bro's Nurseries & Orchards Co.
Louisiana, Missouri.

United States Department of Agriculture
Bureau of Plant Industry.

Washington, D. C. June 22, 1910

Mr. William P. Stark,
Louisiana, Missouri.

Dear Sir: Replying to your letter of June 16, I wish to say in regard to fall planting that Downing was undoubtedly correct when he says: "Early autumn planting is greatly preferred in all mild climates and dry soils and even for very hardy trees, as the apple, in colder latitudes."

Wherever the hardiness of the tree is absolutely beyond question fall planting is advantageous for many reasons. Part of these reasons are directly connected with the physiology of the tree and part of them are of a purely practical nature in dealing with the carrying out of farm work.

When the nursery tree is perfectly dormant and has shed its leaves or is about ready to go into this dormant condition, it is ready for transplanting. Fall planting is at its best when done early. The ground can usually be well prepared to bring the earth in contact with the roots and root growth during the mild weather of mid-autumn takes place to a considerable extent. Especially in the south trees may actually become rooted and the wounds heal before cold weather sets in. It is necessary that the tree should become pretty well established to get the best results from fall planting, though with hardy stock on moist soils the tree can generally be handled at any time when the frost is out of the ground.

In our southern states fall planting goes on clear

through the winter even merging into spring planting. If the soil is unreasonably dry, such as only occasionally happens in the Eastern States but a condition common west of the Missouri river, fall planting should not be attempted.

From the standpoint of practical management of the work fall planting has many advantages. It puts this work out of the way of the spring rush when there is always more work on any farm to do than can possibly be turned out by the force. The period of time available is often longer particularly in the south. There is a very large proportion of cloudy days favorable for planting and handling nursery stock. Wherever the trees then will thrive equally well, fall is the time to do the work for business reasons.

Now as to results.

1st. Fall planting gives better opportunity for careful handling of the trees and actually doing a good job.

2d. Where the planting is properly done and the trees are not injured by cold, they are ready to start into growth at the first beginning of spring, even before it is possible to get on the ground for spring planting. Under average conditions, therefore, the fall planted trees will live better and make more growth than the spring planted trees.

Objections to fall planting.

1st. When nursery stock is dug too early and the leaves stripped before the stock is ripe, the trees do not leave as well nor grow as vigorously and may possible be injured by winter killing.

2d. In the cold northern sections or with any fruit trees where the hardiness of young nursery stock may be questionable, the trees should not be exposed to this danger but had better be planted in early spring. Tender stock may even be dug by nurserymen in the fall and then spend the winter safely in storage houses or buried entirely in the ground.

3d. On clay land or bad pasty soil, fall planting nursery stock sometimes heaves or is lifted by the frosts partly or wholly out of the ground. This can be avoided by mulching or by spring planting. Of course, as a rule such clay land is not well adapted to fruit culture and should not be planted at all or until it is improved by incorporation of humus, etc.

4th. Fall planting exposes the stock to the danger of injury by rabbits, mice, or perhaps by other accidents. This can be avoided by ordinary care or by the well-known methods of poisoning mice and rabbits.

Summary. Fall planting is advantageous in permitting the fruit grower to get ahead with his work.

If the ground is too wet and soggy so that it will bake in the spring or if it is a pasty clay so that the trees will heave from frost, it is objectionable.

If the ground is unreasonably dry either from its sandy or shaly texture or from lack of rain, fall planting is dangerous. This is particularly

true in the north and especially where young nursery stock might be more or less tender during severe winters. Under these conditions, trees may be dried out and killed by freezing before they are able to draw from the soil moisture.

Yours very truly,
M. B. Waite.
Pathologist in charge.

Delaware College
Agricultural Experiment Station
Newark, Delaware, June 23, 1910

Stark Bro's Nurseries & Orchards Co.
Louisiana, Mo.

Gentlemen: It is a good practice in this country to do as much fall planting as possible in setting our young orchards. It has been our experience that a fall planted tree does at least 50% better the first year than one that has been planted in the spring. Yours truly,

C. A. McCue,
Horticulturist.

Department of Horticulture
Oregon Agricultural College
and
Experiment Station.
Corvallis Oregon, June 30, 1910

Stark Bro's Nurseries & Orchards Co.
Louisiana, Missouri.

Gentlemen: In reply to your recent letter concerning fall planting I will state that for Western Oregon, including the Willamette Valley, Umpqua Valley and the Coast Counties, also Rogue River Valley in Southern Oregon, I would by all means recommend fall planting. For the higher altitudes of the state and for those regions that are subject to low temperature in winter I would recommend spring planting. The severe frosts that we have had the past two years have been along the lines of very premature fall frosts, followed by colder winter temperatures than is customary.

We have been experiencing in Western Oregon considerable winter killing, whereas under normal conditions we suffer very little from such causes. From our experience during the last two years, I would urge the growers of Western Oregon and Southern Oregon west of the Cascades, to plant in the fall, or at least not later than February. I have noticed that we have had less winter killing from fall planting than from spring planting and that the trees take hold much better when planted in the fall.

Trusting that this will be of assistance to you, I am Yours sincerely,

C. P. Lewis,
Professor of Gen'l Horticulture and Pomology.

Alton, Illinois, June 23, 1910

Stark Bro's Nurseries & Orchards Co.
Louisiana, Mo.

Gentlemen: I prefer fall planting and do all I can at that season. You have fully expressed the reasons in your "A Talk on Fall Planting" which I fully endorse. Truly,

E. A. Riehl,
Horticultural Experiment Station.

Maryland
Agricultural Experiment Station
College Park, Prince Geo. Co. Md. June 20, 1910

Stark Bro's Nurseries & Orchards Co.
Louisiana, Mo.

Gentlemen: Replying to your favor of the 16th inst. will say that I am most certainly in favor of the fall planting of apples and pears at least in all portions of this country except where the winters are most severe. In bulletin 144 on "Apple Culture" I gave my reasons for fall planting. I think that in the milder sections other fruit trees also could be planted to advantage in the fall. I have seen peach trees planted in fall in central Delaware that succeeded splendidly. The greatest drawback to spring planting is the fact that so many trees cannot be planted early enough. A spring-set tree if planted early will be practically as good as a fall-set tree.

Yours very truly,
C. P. Close,
State Horticulturist.

McKinney, Texas, June 22, 1910

Stark Bro's Nurseries & Orchards Co.
Louisiana, Mo.

In a temperate climate we find fall and early winter best time to plant trees, especially hardy deciduous trees, shrubs and plants. At this time the tree has more vitality, the soil is warmer and in better condition to settle around and heal the broken roots, new roots form early and the tree becomes more strongly anchored and prepared to pass the heat of summer. With these accumulating advantages the trees grow larger, live longer and produce more fruit and better fruit.

E. W. Kirkpatrick.

Iowa State College
Department of
Horticulture and Forestry
Ames, Iowa, June 23, 1910

Stark Bro's Nurseries & Orchards Co.
Louisiana, Mo.

Gentlemen: Theoretically the autumn time affords ideal conditions for transplanting. The center of activity in the plant is the protoplasm in the cell. Within certain limits the growth and activity of the protoplasm is stimulated by heat and retarded by cold.

In the fall of the year the soil is warmer than the air. This condition is ideal for root development, thus assisting the newly moved tree in becoming re-established, and on the other hand the cooler atmosphere tends to hold back the top.

Generally speaking, the soil is in better condition for work in the autumn and it is also a

more convenient time for this work.

Replying to your questions as to the advisability of fall planting in Iowa, I would state that if the conditions are right excellent success may be had, but there are two very important points which if ignored are likely to result in failure. The first is, the tree must be transplanted early, just as soon as the leaves drop in order that they may become re-established before winter. Secondly, if the autumn is dry the work is likely to be a total failure. On the other hand if the planting is done early and the rainfall is normal it is an excellent time to do the work.

Yours very truly
A. T. Erwin,
Associated Professor.

University of California
College of Agriculture
Berkeley, Cal. June 21, 1910

Stark Bro's Nurseries & Orchards Co.
Louisiana, Mo.

Gentlemen: Fall plantlng and spring planting in California are local matters in the different regions of the state. Over the greater area of the state fall or early winter planting are superior because the young trees speedily makes roots and establishes itself, while spring planting is apt to bring the tree into the dry season without having had an opportunity to thus fortify itself.

Very sincerely,
E. J. Wickson,
Dean and Director.

Seattle, Wash. July 1, 1910

Stark Bro's Nurseries & Orchards Co.
Louisiana, Mo.

Gentlemen: Replying to your inquiry or June 16th relative to fall planting and spring planting, I would say that for mild climates I much prefer fall planting. Where the climate is too rigorous for fall planting, I much prefer to get my trees in the fall and heel them in for spring planting. In the issue of the Ranch for July 15th I will discuss pretty fully the questien of fall and spring planting. Very truly yours,
F. Walden.

University of Missouri
Departmunt of Horticulture
Columbia, Mo., June 18, 1910

Stark Bro's Nurseries & Orchards Co.
Eouisiana, Mo.

Under favorable conditions fall planting is probably preferable to spring planting of fruit trees in any climate where the kind of fruit trees in question is perfectly hardy. By favorable conditions is meant mainly if the soil is moist enough in autumn so that the trees will not dry out after being planted.

Often there is more time to do the the work in autumn, and the planting will be out of the way before the rush of spring work comes on.

In a mild climaie, autumn planted fruit trees will make root growth and become somewhat established before the ground freezes in winter, and will therefore be ready for immediate growth when spring comes on,

The soil is much warmer in the fall than it is in the spring.

This stimulates autumn root growth. Fall planted trees have what is almost akin to bottom heat during the autumn, especially in climates where the summer is long and hot It should be borne in mind that the soil has not yet attained its greatest sum total of heat during the hottest part of summer. It continues to store up heat to a greater and greater depth until cool weather at autumn comes on. In Missouri our soil has its maximum store of heat somewhat late in October. This heat gradually passes off during late autumn and winter. Often in late autumn this heat coming out of the soil keeps the roots of the trees warmer than their tops are kept in the air above. This stimulates root growth very much as a mild hot bed would do.

This favoring of autumn root growth is well illustrated by the fact that autumn set cuttings of the pear, persimmon and other plants in Texas and the south root very readily before cold weather of winter. While similar cuttings set in the far north where the soil has no such store of summer heat fail entirely to root. * * * *

J. C. Whitten,
Prof. of Horticulture

The above information was gathered to correct the erroneous impression that tree and shrub planting could only be successfully done in the spring. Where practicable we advise you to buy and buy now your nursery stock. Write us we'll tell you whether or not you should plant this fall or hold stock until spring.

Stark Bro's
Nurseries & Orchards Co.
Louisiana, Missouri

Two Stark Helps

SPECIAL SERVICE DEPARTMENT

If you are contemplate planting an orchard in either a large or small way, let us assist you. Our Special Service Department will advise you as to best varieties for commercial or home orchard, best methods and time of planting in your locality, spraying, care of trees, and other valuable information. This service is given without charge and will in no way obligate you to buy of us. This department is maintained to promote greater interest in the planting of the best and most profitable varieties of fruit known.

STARK YEAR BOOK

A practical, plainly written, easily understood volume of guidance and help for the planter of fruit trees, small fruit plants, vines and other nursery products. It is of equal value to the beginner or the experienced. It is a complete catolog of the nurserv products grown by Stark Brothers.

The Stark Year Book for 1910 contains 116 pages and cover, 8 x 11 inches. 32 pages are devoted to illustrations of fruts and flowers in natural colors. 84 pages are given to descriptions of varieties, the record made by each. You are told in what section of the country each variety will snceed and the season when fruit will ripen. Much general horticultural info mation, written so simply that a child can understand it, is distributed throughout these 84 pages. You will find The Year Book totally different and far better than anything in the line you have ever before seen. It should be your text book. We will mail to you for 10 cents iu stamps which only covers mailing cost.