

## Horticultural Department

EDITED BY F. WALDEN.

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### Methods of Pruning.

Robert G. Bailey, Lewiston, Idaho, writes under date of August 16th, as follows:

"I have before me your article in The Ranch on 'Summer Pruning.' It surely has me where the wool is short. I have five acres in four year old fruit trees, and ever since I planted them I have tried to attend to them as per your articles in The Ranch, which I have read for years with much pleasure, and as I thought, profit." Mr. Bailey goes on to say that he recently was told by a prominent horticulturist that the proper time to prune apple trees is about the first of August and peach trees the last of August. Mr. Bailey further says:

"Following your teachings I have pruned my trees to an open head, but I am told that trees should not be

pruned this way, at least until they get eight or ten years old; that young trees should have lots of foliage to protect all parts from the sun; that the central branches should be allowed to grow and fill the hollow centers full of well-spurred limbs. Following this advice I have just finished pruning my apples and yesterday started on my peaches. To be candid, I think your advice, combining as it does theoretical as well as practical knowledge, is the one I will follow—only my trees are now summer pruned—the first time I have pruned this way. What I ask is that you treat fully of summer pruning and the open head tree, giving the whys."

I will try to comply with this request, but will not engage in any personal controversy, and especially with the person named by Mr. Bailey, for he is my personal friend and a competent horticulturist. The fact is we can find very competent men on all sides of these questions. I will clearly state my views and give my reasons. Any one holding different views to mine has the same privilege. I would recommend those interested to read both sides and then remember the Dutchman's advice, "You pays your money and you takes your choice."

It is a rule among horticulturists, "Prune in the winter for wood and in the summer for fruit." Sorauer in his great work on "Physiology of Plants," page 138, says: "If the term winter-pruning is given to any removal of shoots during the resting period of a woody plant, we may say generally that winter pruning is strengthening, while summer pruning is weakening." No well-informed horticulturist will call in question this statement, now will he recommend the weakening of a tree unless it is necessary. Now when a tree is exceedingly vigorous and giving all its strength to wood growth it may become necessary to check this wood formation in order to get the formation of fruit buds. But do we find this condition prevailing in Eastern Washington, Northern Idaho or anywhere else in the intermountain states? No. We find as a general rule that our trees in these sections bear too young and too heavily for their good. Hence, to resort to a method of pruning that tends to weaken them and at the same time cause over production, would certainly be an unwise step. Neither the weakening nor the increase of production is needed in those sections. Then do not practice summer pruning.

What is presented above introduces a factor of great importance in connection with this matter of pruning and that is locality. The method of pruning suitable to one locality will not be adapted to some other. Let me introduce some proofs on this point. Fred W. Card, then Prof. of Horticulture in the Nebraska Experiment Station, issued a Bulletin in 1897, entitled "Notes on Pruning" in which we find this language: "Shall we prune fruit trees in the West? To an eastern man this will appear like a foolish question, and he will at once say, 'Why, yes, of course; prune fruit trees everywhere.' To the western man it will not appear so foolish; indeed, many men upon the plains would say, No! in answer to this question. Where is the trouble? Plainly a difference in conditions. The eastern fruit-grower has learned by experience that pruning is an essential part of this method of treatment. The western grower, on the other hand, has not only found that he can produce good fruit without pruning, but has sometimes found injurious results from it. He may, therefore, if his experience is somewhat limited, jump to the conclusion that all pruning is to be avoided.

Pruning is needed in Nebraska as well as in New York, but the methods employed, or at least the measure of wood which is cut away, will need to be varied. In general, it should be much less in the western states than in the Atlantic states." Prof. L. H. Bailey in his book entitled "The Pruning Book" quotes with approval these words and much more from Card's bulletin and then adds: "It is undoubtedly true that in those regions out-door plants need less pruning than in humid climates."

In 1896 Prof. J. A. Balmer of the Washington Experiment Station issued a valuable bulletin, entitled "Pruning Orchard Trees." Prof. Balmer is very emphatic in this bulletin on this point of locality. He says: "Climatic conditions will largely determine what practice we shall adopt in pruning our fruit trees. Let us first observe the conditions prevailing in Eastern Washington. Here we have a long, dry summer, with a fierce, scorching sun and strong, drying winds, with a maximum rain fall of probably less than eighteen inches per annum, followed by a severe winter with fluctuating temperatures and sudden changes. Under these conditions who can wonder that trees on the east side come to maturity at an early age, and produce fruit at a time in their lives when they ought to be making a wood growth and establishing a strong, healthy frame for future usefulness. And yet conditions which at first sight would seem totally unfitted for the production of healthy trees and fine fruit are, with the aid of intelligent cultivation and the judicious use of water, made to produce the choicest fruit of the earth. There is no question in my mind as to what is the proper method to adopt in pruning our fruit trees on the east side of the mountains. We must prune in winter and prune hard. The tendency of all our young trees is to run to premature fruiting, cherry trees carrying a crop of fruit at two years old, and pears and apples bearing a full crop at five and six years old. To overcome this tendency in our trees we must practice a system of pruning to wood and leaf growth, and to discourage all forms of summer pruning and pinching."

It can be seen from these quotations from Card and Balmer that for the intermountain regions and the plains east of the Rocky mountains summer pruning should not be practiced and I believe that the reasons assigned by these able men will commend itself to the thoughtful and unprejudiced men. We make a serious mistake if we try to bring to the plains of Nebraska and Kansas and to the intermountain states methods adapted to New York, Pennsylvania and Virginia. It must not be thought, however, that in the eastern states our leading horticulturists recommend summer pruning alone. Col. G. B. Brackett, at the head of the Department of Pomology in the Department of Agriculture, in the Yearbook for 1910, on page 601, has this to say about the time of year for the general pruning of the apple tree:

"During early springtime, or even late winter (when the wood is not frozen) each year every tree should be carefully looked over, and all branches which are liable to interfere with adjoining ones should be cut out and the centers of the dense growth thinned out; side branches which are making a stronger growth than others should be checked by heading in the terminal or central shoots, and all parts of the tree should be cut back whenever necessary to maintain an evenly balanced head."

William Saunders, horticulturist, in the 1898 Yearbook, page 152, says: "The season for pruning is, in some cases, an important factor in the

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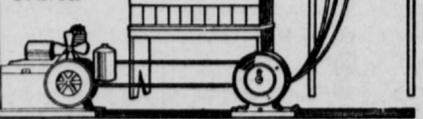
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