

PEAR BLIGHT AND ITS CONTROL UPON THE PACIFIC COAST

This is the Tenth of a Series of Articles That Will Be Printed Daily Until Subject is Completed—Every Orchardist in the West Should Save These Issues for Future Reference, as They Contain Valuable Information.

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(Continued from Wednesday, May 18.)

Summer Cutting.

Summer cutting intelligently applied may do a great deal of good in saving trees which would otherwise be lost. This is especially advisable where there is only a little blight in the orchard (by this I mean to say that unless the infection is so serious as to necessitate the destruction of the entire tree), and it should always be practiced. The dry summer weather of most of the Pacific coast country, especially from southern Oregon southward, is certainly not favorable for new infections, but occasionally spring rains occur rather late and sometimes extend into the summer and after the blossoming time. Until the present year such has not occurred in southern Oregon, but the past spring has had several infection periods in which conditions have been extremely favorable to the development and spread of the disease. Under eastern conditions, or where excessive spring and summer rains are the rule, summer cutting is only half successful, and has, therefore, been condemned by most pear and apple orchardists as a failure. Summer cutting is a failure, or is made apparently so because of the fact that new infections invisible at the time the work is done, may develop in a few days so that a week after the most thorough cutting out of the blight a new crop of infections is found thriving. Another source of difficulty in the spring or summer time arises from the rapid extension of the blight infection in the branches of varieties that are very susceptible to the disease. Sometimes, especially where the infection has reached a large leader or the body, the germs often reach a foot or two beyond the discoloration, as the disease is spreading so rapidly that the bark has not had time to discolor sufficiently to be detected; therefore, in summer cutting the removal of the infection must be at a greater distance from the point of infection than in fall and winter work. Experienced men can judge somewhat of the distance by the rapidity with which the stained bark blends off into the normal bark. Furthermore, a reddish streak will often be apparent in the cambium and young wood, and by following it up, a clue may be had as to the possible trend of the blight. The greater the distance in which the blending takes place the lower the cut must be made and conversely. Disinfection is more important in summer cutting than in winter cutting, and, although in the dry coast climate the sunlight and dry atmosphere will usually take care

of most of the germs accidentally left on cut surfaces, it is by no means true that infection may not take place from such cases. Furthermore, a foggy morning following the cutting might spoil the whole procedure, so the only safe way is to always disinfect. In a recent bulletin published by one of the eastern agricultural colleges the recommendation is made to "disinfect the cut or wound and not the tools." This is one of the worst mistakes that could be made, and shows that the author has never had any practical experience in fighting the disease. Often in using the tools, accidental cuts or punctures are made, and it may happen that infection may be produced by them. As to the choice of a disinfectant, permit me to state once more that there is nothing cheaper nor better than bichloride of mercury, and any substitute for it should not be considered. Always use the proper strength, 1 to 1000, or even stronger, and accept no substitutes. Do the work of summer cutting of blight with as great care as possible; if this is not done you may reasonably expect to do it all over again, and, perhaps, lose some very valuable trees.

Removal of Water Sprouts and Low Fruit Spurs.

By far the greater part, probably as high a percentage as 80 per cent of the loss of trees in California and southern Oregon has come from body and limb infections through water sprouts and low fruit spurs. Water sprouts coming up from the root system, even at some distance from the base of the tree, have caused fatal infections. Fruit spurs when located on the body or main forks, and becoming infected, quickly introduce the germs into the thick, fleshy bark which carries all the sap, and destruction is very rapid if the tree is growing rapidly and if it happens to be a very susceptible variety. Water sprouts from the French stocks on which most of our commercial varieties are grafted are very susceptible, and should be removed with the greatest of care. It needs no argument, therefore, to state that the removal of water sprouts and fruit spurs well up on the limbs is an important subsidiary practice in the control of pear blight. Much of the cutting of water sprouts is done by farm hands who remove them so as to leave a stub an inch or so long. The result is that several water sprouts come from the same place the next year. Water sprouts should always be cut out as far as the wood, and a gouge or sharp saw, although producing a larger cut surface, effectually removes the spur for all time. Heavy pruning back of the tops of the trees as generally practiced throughout the coast as a means to secure heavy fruit yields, encourages the pushing of these water sprouts so that the problem is really an important one.

Resistant Bodies and Stocks.

One matter of very great impor-

tance and which has been mentioned before, is the possibility of working all the non-resistant varieties of pears and apples on resistant stocks or bodies. It has been stated that the Winter Nellis and the Kieffer varieties of pears are the most resistant of commercial varieties. Under eastern and southern conditions, the Kieffer pear is really the only one that has stood against the ravages of the blight. By this I do not mean to say that it is wholly immune, because under extreme conditions it will blight. However, the conditions on the Pacific coast are such that if the Kieffer were used as a stock or body there would be little danger of losing the tree by root and body infections. Experience in California has shown that while Bartlett and other non-resistant varieties have blighted as far as the Nellis and Kieffer stocks, the infections have usually stopped at the graft union. Every pear grower on the coast who has had experience with blight knows that Winter Nellis and Kieffer, the latter being very rarely grown, has noticed that these varieties rarely blight seriously, although they may be surrounded by a great deal of infection. Of course, we do know, on the other hand, that they are not immune even on the coast. I should offer as a suggestion that Kieffer stocks might well be set out and afterwards top-grafted to any of the commercial varieties of pears. This will, at least, provide resistant bodies and roots which will eliminate the danger of loss by body and root infection. I wish to urge that the finding of a variety of pear entirely immune to pear blight will alone solve the pear blight problem for this species of pome fruit. The same will be true of any other of the pome fruits. As soon as an immune is found the possibilities of plant breeding will, no doubt, evolve commercial varieties equal to those that we have now, and, at the same time, they will be immune from disease. This is looking far into the future, but it will be done as it has been done with other plants.

KIPLING PAYS HIS TRIBUTE TO KING

Writes Poem Entitled, "The Dead King," Voicing a Eulogy by the English Nation—Is Masterful Effort.

LONDON, May 19.—In a poem by Rudyard Kipling, published today, the famous English writer pays a touching tribute to the late King Edward. The poem is entitled "The Dead King," and voices a eulogy by the English nation. The general idea is one of homage to the monarch and the climax comes in the last stanza which runs as follows: We accepted his toll as our right, None spared, none excused him, When he was bowed by his burden his rest was refused him. We troubled his age with our weakness— The blacker our shame.



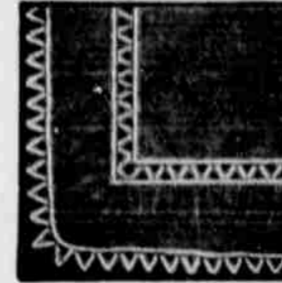
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Overland Service Postponed.

OROVILLE, Cal., May 19.—According to information received here

today the Western Pacific railroad will not start its overland passenger service until July 1, owing to washouts in Utah and Nevada. It was first announced that the company would put on passenger trains April 1, but a landslide in the Sierras caused a postponement until June 5. The washouts are responsible for a second delay.

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