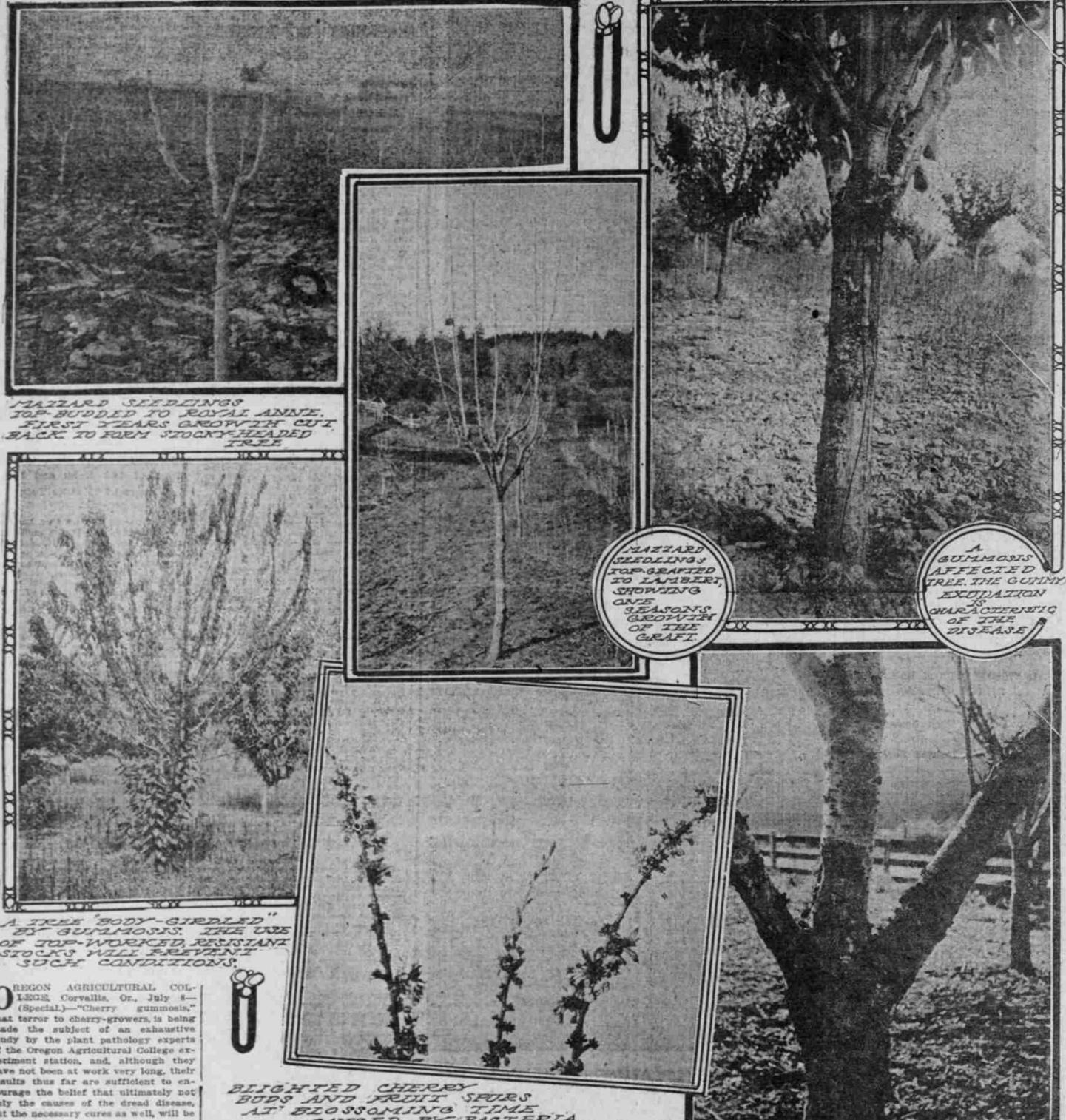


# CHERRY TREE MENACE MAY BE CHECKED

Agricultural College Experiment Station Studying Methods of Fighting "Cherry Gummosis," Which Is Said to Be Most Destructive of All Troubles Affecting Cherry Industry in Oregon.



MAZARD SEEDLINGS TOP-BUDDED TO ROYAL ANNE. FIRST YEARS GROWING OUT BACK TO FEARS STOCK-BUDDED TREE

MAZARD SEEDLINGS TOP-GRAFTED TO LAMBERT, SHOWING ONE SEASON'S GROWTH OF THE GRAFT

A GUMMOSIS AFFECTED TREE. THE GUTTING EXPLANATION IS CHARACTERISTIC OF THE DISEASE

A TREE "BODY-GIRDLED" BY GUMMOSIS. THE USE OF TOP-WORKED RESISTANT STOCKS WILL PREVENT SUCH CONDITIONS

BLIGHTED CHERRY BUDS AND FRUIT SPURS AT BLOSSOMING TIME CAUSED BY BACTERIA

TREE AFFECTED AT THE CROTCH. THE BRANCH TO THE RIGHT IS COMPLETELY GIRDLED BY THE DISEASE

OREGON AGRICULTURAL COLLEGE, Corvallis, Or., July 8.—(Special).—"Cherry gummosis," that terror to cherry-growers, is being made the subject of an exhaustive study by the plant pathology experts of the Oregon Agricultural College experiment station, and, although they have not been at work very long, their results thus far are sufficient to encourage the belief that ultimately not only the causes of the dread disease, but the necessary cures as well, will be discovered.

Realizing the importance and interest of the subject in the cherry orchard growers of the state at this time, F. L. Griffin, research assistant in plant pathology at the college, has consented to give a preliminary report of his investigations which he is conducting regarding the causes and cures of the disease.

"The diseased condition of cherry trees, commonly called 'gummosis,' is the most destructive of all the troubles affecting the cherry industry in Oregon," said Mr. Griffin. "No cherry-growing section of the state is entirely free from the disease, but it is in the more humid climate west of the Cascade Mountains that gummosis has become a menace to the growing of cherries.

"Gummosis has caused the loss of a great many trees in the past, and many orchards originally planted to cherries are now almost entirely barren. So seriously is the disease regarded that many people are hesitating to plant cherries, although good profits are realized in raising the fruit for the canneries. With the advent of pre-cooling and the perfection of the pitting machine, both of which will extend the markets for the green and dried fruit, the growers' profits will be doubled or tripled, and if a remedy for this great drawback to the industry can be found, Oregon will become as famous for cherries as she has for her other fruits.

"The departments of plant pathology and horticulture of the Oregon experiment station have been conducting an investigation regarding the cause and cure of 'cherry gummosis.' The investigation is not completed, but enough information concerning the prevention of the disease has been obtained to justify the encouragement of the growing of the sweet cherry if certain soil and cultural requirements be observed.

The stimulus that induces the transformation is imperfectly understood. It is certain, however, that the stimulus that incites the cambial tissues to the formation of the prediaposed coils is caused by some unfavorable or irritating factor of environment. Hence, if gummosis is to be prevented, the unfavorable factors of environment must be sought for and removed.

**Gum Exuded in Spring.**  
"Cherry gummosis is characterized by the more or less copious exudation of gum from the trunk, branches or fruit spurs. Beads of gum may be forced from the ends of blighted buds. The gum may make its appearance during any season of the year, but it is most prevalent in spring. The first indication of gummosis is usually the smooth, glistening and often pustulated appearance of the bark, although the gum masses may find free exit to the surface and not accumulate in blisters.

"Two forms of gummosis may be distinguished on the cherry in this state, one being localized in extent of injury, while in the other more generally the greater part of the trunk or branch may be affected, and the diseased area not be sharply defined. In the localized form where the buds or spurs are involved, and the disease extends into the branch or body, the affected tissues are limited to rather sharply defined areas surrounding the blighted buds or spurs. In another localized form the disease is apparently limited to the immediate vicinity of the crotch.

"Many various and often conflicting theories have been advanced to explain the cause of cherry gummosis. Gummings in the cherry, as in the other stone fruits, may be induced by wounding or result from the attacks of insects or fungi, but its cause has been attributed to unfavorable climatic and soil conditions more often than to any other factor of environment.

"Unfavorable soil conditions undoubtedly favor gummosis, and it has been noted in many orchards that the trees growing in shallow soil or in poorly-drained locations are more subject to the disease than those more

favorably situated. The fact, again, that gummosis occurs in orchards growing in deep, well-drained, and apparently the best of cherry soil, makes us seek still other explanations for the causal factors.

"The condition known as 'sun-scald' is often accompanied by gumming. This is most destructive in young, high-headed trees, which are often girdled by the diseased tissues encircling the trunks. Wounds caused by pruning or cultivation will often produce gum, but the extent of such injuries ordinarily is not serious.

"Gummosis has been ascribed to cultivation or fertilization of the orchard, but experience has demonstrated that the cherry, like the other tree fruits, demands both of the cultural treatments, and no harm will result if the tree is encouraged properly to mature its wood.

"Insects may induce gum flow, as is shown by that resulting from the attacks of borers. That due to insect injury, however, is sporadic and easily controlled.

The most certain practice or method for preventing gummosis is the use of resistant varieties and stocks. At the present time all of the dependable commercial varieties grown are subject to the disease, the Royal Annes and Bings apparently being more affected than the Lamberts. It is reasonable to hope that horticulturists, by breeding and selection, will establish resistant strains of these varieties, if some new sweet cherry resistant to gummosis, having the good qualities of the others mentioned, is not introduced.

**Mode of Cure Shown.**  
"By the topworking of resistant stocks, gummosis can best be prevented. Two stocks are commonly used for propagating sweet cherries, the Mahaleb and the Mazzard. Prunus Mahaleb is a species distinct from the sweet varieties, and as a wild seedling, is native to Europe. The Mazzard is a wild black seedling, closely related to the cultivated sweet varieties, and is found growing wild in the Eastern United States, although originally a native of Europe.

"Experience has proved that the Mazzard is the better stock for the cultivated sweet cherries, but as the trees are budded low in the nursery, the main body and crotch of the tree is of wood susceptible to gummosis. It has been found that the Mazzard is immune, or nearly so, to gummosis and as the seedlings will form straight, smooth-bodied trees, which can be headed low or high, as desired, if the limbs of these seedlings be budded or grafted, the disease is eliminated from the body of the tree. The branches of the seedlings can be either budded or grafted. The best method is to plant the seedlings in the orchard in the same manner as ordinary nursery stock, and when three years old, insert buds of the desired varieties into the branches about 15 to 20 inches above the crotch. Grafting usually results in rougher unions than budding, but will give good results if well done.

"The branches, resulting from such top worked trees may become affected later, but at the worst, the disease will result in the loss of a branch instead of the loss of the entire tree; and it

branches can be started if one becomes diseased, by inserting another bud or scion in the seedling branch.

"Care should be used in the selection of stocks and scions. Many growers have mistakenly planted seedlings grown from sweet cherry pits or have transplanted the seedlings that appear under uncultivated trees, thinking they were Mazzards. This results, of course, in having the body of the tree composed of wood susceptible to gummosis. The buds or scions should be obtained from trees free from gummosis.

"No one should hesitate to plant sweet cherries on a commercial scale because of gummosis, providing he has good soil and will plan resistant stocks on which to topwork his desired varieties.

## PERSONAL MENTION.

E. A. Welch, of Medford, was at the Imperial yesterday.  
J. Henry Wallace, of Vancouver, B. C., is at the Bowers.  
Mr. and Mrs. H. W. Gwin, of Wasco, are at the Cornhusk.  
George W. Wright, an attorney of Albany, is at the Imperial.  
A. G. Allingham, a merchant of Prineville, is at the Perkins.  
Rev. Adolph Ruppe, of Astoria, is registered at the Cornhusk.  
E. P. Noonan and family, of Astoria, are registered at the Imperial.  
Mr. and Mrs. L. D. Firsbaugh, of Hood River, are at the Bowers.  
John Lambert, a manufacturers' agent of Seattle, is at the Bowers.  
H. S. Gile, a Salem commission merchant, was at the Imperial yesterday.  
Mr. and Mrs. T. B. Johnston, of Roseburg, are registered at the Imperial.  
Mr. and Mrs. J. G. Earl, of Hood River, are registered at the Imperial.  
Mr. and Mrs. E. C. Truesdell, of Centralia, were at the Perkins yesterday.  
Perry P. Brush, a prominent Kelso attorney, was a Portland visitor yesterday.  
E. B. Hogue, of Silverton, was among yesterday's arrivals at the Cornhusk.  
Frank A. Moore, of Walla Walla, Wash., registered at the Oregon yesterday.  
J. T. Hayden, a merchant of Walla Walla, Wash., registered at the Oregon yesterday.  
Charles H. Glos, a merchant of Corvallis, was registered at the Perkins yesterday.  
George W. Warren, a prominent stockholder of Warrenton, accompanied by his brother, S. L. Warren, of

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Astoria, was at the Portland yesterday.

George T. Gerlinger, a business man of Dallas, was registered at the Imperial yesterday.

W. A. Williams, an attorney of Forest Grove, was registered at the Imperial yesterday.

Dr. and Mrs. J. Earl Elise, of Pullman, Wash., were registered yesterday at the Oregon.

M. T. O'Connell, a wealthy lumberman from Winlock, Wash., is registered at the Oregon.

F. L. Stewart, State Senator and banker of Kelso, Wash., was registered at the Oregon yesterday.

A. C. Olds, a real estate dealer and insurance man of San Francisco, was at the Oregon yesterday.

Mr. and Mrs. J. W. Foster, of Corvallis, were in Portland yesterday, registering at the Imperial.

B. K. Lawson, a merchant of Cottage Grove, was in Portland yesterday. He registered at the Oregon.

Mr. and Mrs. E. L. Howe, of Mosier, were registered at the Bowers yesterday. Mr. Howe is a fruitgrower.

C. W. Nibley, Jr., manager of a beet sugar factory at La Grande, was registered at the Portland yesterday.

Misses Ethel Dobbins and Marguerite Ellett left last night for Newport to remain on a two weeks' vacation.

F. W. Sattlemier, a prominent Marion County nurseryman, registered at the Oregon yesterday from Woodbury in the John Blaisdell, State Fish Commissioner for the State of Washington, was registered at the Oregon yesterday.

Mr. and Mrs. Walter L. Toole, of Falls City, are at the Imperial. Mr. Toole is a merchant in the Polk County town.

Donald Beaton and sister, Miss Eleanor Beaton, of Chicago, were Portland visitors last week at the home of Dr. I. L. Tickner on East Fifth

street. They are old friends of Mrs. Tickner and visited here during the Lewis and Clark Fair.

E. B. Tongue, District Attorney for the Fifth Judicial District, was registered at the Imperial yesterday from Hillsboro.

J. T. McChesney, a business man of Everett, arrived in Portland yesterday and joined his wife and daughter at the Bowers.

Mr. and Mrs. E. V. Carter, of Ashland, are registered at the Imperial. Mr. Carter is a prominent Southern Oregon banker.

Mrs. C. E. Parsons, wife of a real estate dealer, and Mrs. J. P. Growdon, of Spokane, were registered at the Bowers yesterday.

Fred Schafer, of Molalla, was at the Perkins yesterday. As a contractor, Mr. Schafer furnishes the railroads of this state several thousand tons annually.

Dr. and Mrs. D. C. Hawley, of Burlington, N. Y., and Dr. and Mrs. Samuel Vorhies and son, of Elmira, N. Y., were registered at the Bowers yesterday.

Mr. and Mrs. J. R. Harter, of Tillamook, were registered yesterday at the Imperial. Mr. Harter is engaged in the real estate business at Tillamook.

H. W. Farmer, clerk at the Perkins Hotel, has returned from a two weeks' vacation spent in San Francisco. Mr. Farmer was in the California metropolis at the time of the recent earthquake.

CHICAGO, July 8.—(Special).—D. J. Gilmartin, of Portland, is at the Crown Hotel. Mr. and Mrs. G. C. Peltor are at the Brevoort.

SAN FRANCISCO, July 8.—(Special).—The following Portland people are registered at the Palace Hotel: George B. Van Waters, William T. Foster, E. B. Cherrin, April L. Dimick, Mrs. W. R. Smith, R. F. Barker, Mrs. George Beach. Other arrivals are: Miss W. F. Prantz, Hillsboro, Or.; W. J. Kerr, Corvallis.

## New Newspaper at Los Angeles Is Signal for Renewed Otis Conflict

Belligerent Proprietor of Times Target for Tribune's Attack—Suffragists in Arms Over Alleged Slur of Dean McCormick.

LOS ANGELES, July 8.—(Special).—Los Angeles has a new morning daily newspaper, owned and edited by Edwin T. Earl, millionaire owner of the Evening Express. His news sheet is known as the Tribune, and it won no little fame for itself and its owner by the rapidity with which it was organized after the initial announcement of its establishment was made, two weeks ago.

Earl had the circulation organization of his Evening Express to fall back upon, which fact helped materially in the formation. John Elliot, ex-Associated Press representative here, and Wesley Barr, formerly managing editor of the Los Angeles Herald, bore the burden of the initial arrangements. Both of those men are experienced newspaper men.

The Tribune was born of the fight on General Harrison Gray Otis, owner of the Times, and of the official announcement of his ownership of the Herald. It is understood that the fight on the General is to be to the death—although death is to result is not announced.

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