

APPLE POLLINATION BULLETIN PREPARED

Oregon Agricultural College Staff Issues Pamphlet Treating on Important Subject.

The Oregon Agricultural College has issued a 40-page bulletin on "Pollination of the Apple" which was prepared by C. L. Lewis and C. C. Vincent. The bulletin will be sent free to any person requesting it. It is an excellent article on the question under discussion.

This bulletin treats of the following phases of pollination: First the technique of pollination; second, the determination of the sterility and fertility of a large number of varieties of apples; third, the determination of the best pollinizers for the Spitzenburg; fourth, the improvement by crossing of self-fertile varieties like the Yellow Newtown. The content of the bulletin can be summarized as follows:

History of Pollination.

1. It was due to early writers such as Sprengel, Knight and Darwin, that light was thrown upon pollination problems. This work served as a stimulus for horticulturists to investigate these problems.

2. The unsatisfactory method of emasculating the blossoms has been one of the principal reasons why pollination experiments have not been conducted on a larger scale. A system of emasculation is outlined in this bulletin which greatly facilitates matters, allowing for greater rapidity in making the operation and insures against mutilation of the blossom and malformation of the fruit.

3. The small camel's hair brush is a practical and efficient way to apply the pollen to the stigmas of the pistil. Considerable controversy has arisen as to the time of making the application. We have obtained very satisfactory results by applying the pollen at the time of emasculation.

Self Sterile Fruit.

4. The question of collecting an

adequate supply of pollen for pollination purposes is a serious one. A solution of this problem is found by resorting to the forcing house. Here pollen can be ripened quite rapidly.

5. Out of 87 varieties of apples worked with, 59 varieties were found to be self-sterile 15 varieties self-fertile and 13 varieties particularly self-fertile.

6. Many varieties of apples naturally tend to be self-sterile, when limited to their own pollen.

7. Results indicate that cross-pollination is the rule, and self-pollination the exception.

8. A knowledge of the mutual affinities between the different varieties must be gained.

For the Spitzenburg.

9. Some pollinizers for the Spitzenburg have been ascertained. Sixteen varieties of apples were found to cross successfully with this variety. A few, such as the Yellow Newtown, Ortley, Arkansas Black, Jonathan, Baldwin, and Red Cheek Pippin (Monmouth Pippin), are very promising.

10. In some instances the immediate effects of pollen on the color of the fruit were perceptible.

11. With an increase in the weight of the crossed apple, there was a proportional increase in the weight of the seeds.

12. The action of foreign pollen on the Yellow Newtown, a self-fertile variety, was very pronounced.

13. Many of the self-fertile varieties of apples, when self-pollinated, were found to be seedless, or devoid of plump seeds.

Coming Improvements.

14. An improvement in the size of the self-fertile varieties can be made by crossing.

15. Out of 18 varieties that we have found to cross with Yellow Newtown, a few, such as Spitzenburg, Jonathan and Grimes Golden, have given excellent results.

16. The pollen-producing powers of 87 varieties of apples are given.

17. Some pollinizers for 20 different varieties of apples have been determined.

18. Wind is a poor agent in transferring pollen from tree to tree. Bees and insects appear to be the principal pollen distributors.

19. The floral envelope serves to attract the attention of the bees. They will, however, to a certain degree, visit blossoms in which the floral envelope has been removed.

Blooming Period Given.

20. The blooming period is given of 95 varieties of apples, 31 varieties of pears, and 17 varieties of cherries. A classification into early and late bloomers is made showing what varieties will blossom together for cross-pollination.

21. Climatic conditions influence, to a certain degree, the relative blooming periods of the different kinds of fruits.

22. In frosty localities varieties can be selected with reference to their time of blooming, thus partially eliminating the difficulty of a failure of fruit.

23. We found that pollen was capable of maintaining its viability for three weeks, provided it was not allowed to ferment.

24. The length of time different kinds of fruits remain in blossom at the station are as follows: Apples 13 days, pears 11 days, and cherries 10 days.

GOLD HILL NEWS

(The News)

C. B. Jones of Medford, was in Gold Hill this week on a business trip.

Mrs. G. W. Lance, Sr., was at Grants Pass the fore part of this week.

Mrs. A. L. Harvey of Ashland was visiting relatives and friends in this city the fore part of this week.

F. K. Deuel and Alf Weeks, of Medford were in Gold Hill Sunday on their return trip to the Del Rio ranch.

Sam Sandry came up from Woodville Sunday and participated in the game between Ashland and Gold Hill.

C. F. Young of Medford spent Wednesday night in Gold Hill on his way to the Sardinia creek section to look after business interests.

All business was closed Friday afternoon from 5 to 5 o'clock to allow the merchants and their employees to attend the ball game. Nobody allowed themselves to escape seeing that ball game. It was a great and unique exhibition.

The mill of the Gold Hill Lumber company has been closed down temporarily, owing to the breaking of a casting on the logging engine, the replacing of which cannot be made in local foundries. The work must be done elsewhere and this will involve a delay of perhaps two weeks. The company has some 300,000 feet of lumber in the yards now and has a force of men at work in the timber getting out more logs for future operations.

F. L. Rowe of Sams Valley was in Gold Hill Monday to take out a consignment of new wire for the new extension of the main line from this city to that section. Besides the regular subscribers to the Sams Valley line several independent phones will be put in connecting with the line and having the same switching privileges on the Pacific States Telephone long distance line. In all there will be some fifteen phones on this line connecting with the Gold Hill office.

Medford Time Table

SOUTHERN PACIFIC RAILWAY.

Northbound.	
No. 16 Oregon Express	5:24 p. m.
No. 14 Portland Express	9:49 a. m.
Southbound	
No. 15 California Exp.	10:35 a. m.
No. 13 San Francisco Ex.	3:20 p. m.
No. 225 From Grants Pass	9:15 p. m.
No. 225 For Ashland	10:15 p. m.

ROGUE RIVER VALLEY RAILWAY

No. 2 Leaves Medford	10:45 a. m.
No. 4 Leaves Medford	5:35 p. m.
Motor Leaves Medford	2:00 p. m.
Motor Leaves Medford	9:30 p. m.
No. 1 Leaves Jacksonville	9:30 a. m.
No. 3 Leaves Jacksonville	3:30 p. m.
Motor Leaves Jacksonville	1:30 p. m.
Motor Leaves Jacksonville	7:30 p. m.

MAIL CLOSURES

	A. M.	P. M.
Northbound	9:19	4:54
Southbound	10:05	2:50
Eagle Point	7:20	2:00
Jacksonville	10:20	5:20

OREGON FRUIT CROP PROSPECTS VERY FINE

Chicago Commission Man Says Outlook Is Better Than Ever Before.

According to G. B. Lanham, purchasing agent for Wagner & Co., a commission firm of Chicago, Oregon's fruit crop prospects are a shade better this year than most of the other fruit growing states.

Mr. Lanham has been making a tour of the fruit growing districts in the north and middle west and states that the Colorado crop was saved this year by the use of heating pots kept going there for a week or ten days during the period when the late spring crop came. The pots caused a rise in the temperature of 6 to 10 degrees and not only kept the frost from damaging orchards in which they were used, but also in adjacent orchards which were not supplied with them. The Colorado apple crop, Mr. Lanham says, will be 100 cars more than it was last year.

Utah, he says, will have about half a crop of apples and but few peaches. In Idaho, the crop of all kinds of fruit will be the lightest in many years. Apple men in the Pajaro valley, California believe it will be lighter than last year, but Mr. Lanham thinks they are underestimating it by 1000 cars.

Eastern Washington, Yakima and Wenatchee are reported as having about half a crop of apples, while peaches will be almost a total failure.

In Oregon Mr. Lanham looks for an average crop of apples with peaches and cherries short. He visited the big strawberry growing section in the south and southwest before starting on his western trip, and says berries this year hit the high mark for prices and looks for one of the best berry seasons in a number of years.

The market for box apples and pears, as packed and put up in the northwest, Mr. Lanham says, is expanding more rapidly than it can be supplied and he looks for a greater demand for them this year than ever before.

LEWISTON ORCHARDS PROFIT BY FROSTS

LEWISTON, Idaho, June 8.—Despite the early reports of frost damage to the fruit, the Lewiston valley will harvest one of the most profitable crops in its history this season. In many sections the peaches, apricots and cherries were materially injured by the severe cold weather and late frosts, but the output of the Lewiston valley will not fall far short of an average crop and the damage to other sections will result in fancy prices for the fruit produced here.

The Clarkston Fruit Growers' association is now closing contracts for strawberries at \$4 per crate, and negotiations are pending for the sale of the cherry and peach crops at fancy prices. The entire fruit product of the Clarkston section is handled through the association and because of the bulk of the product available a better price has been secured.

KLAMATH FALLS ENJOYS BOOM IN BUILDING

KLAMATH FALLS, Ore., June 8.—Excavations have been made for several blocks to be under construction within the next 30 days. These include a two-story brick building, to be erected by L. F. Willis at the corner of Fifth and Main, opposite the Hurn building; a two-story brick building to be put up by the Hausker estate, between Second and Third on Main; a double business block to be erected by G. W. White, between Fourth and Fifth on Main, and a business block at the corner of Fourth and Klamath streets. At the corner of Sixth and Main, the old building of the Exchange Livery barn has been razed, and plans have been drawn for the erection of a three-story brick building, the upper floors to be devoted to hotel purposes, and the first floor to stores.



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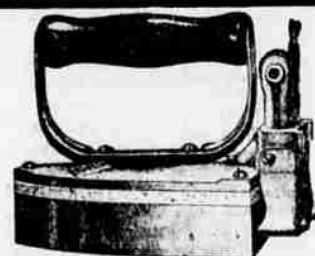
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