

### Lime-Sulphur--Its Use as a Fungicide and an Insecticide

—By—  
Prof. P. J. O'Gara, Pathologist. Written especially for the Medford Mail Tribune.  
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#### FOURTEENTH INSTALLMENT.

14. Since the commercial lime-sulphur spray, as well as the home-brewed, should be considered a dormant spray for this valley, a strength of 4.5 Beaume (1.939 Specific Gravity) should be used. This is stronger than necessary for some insects, especially the San Jose scale, but when it is intended to control woolly apple aphid and green apple aphid at one spraying it is not too strong. When spraying for these two insects, too early application of the lime-sulphur does not give good results. The spray applied just before the buds open has always given the very best results. As a general rule, lime-sulphur should not be diluted more than the above strength for any spraying in the spring no matter what variety of fruit tree is to be treated. This advice is given with the understanding that the trees are dormant, or practically so.

15. The action of the lime-sulphur upon insects depends to a very great extent upon the amount of free sulphur which will be deposited, upon exposure to the air, in a very finely divided state. The finely divided sulphur is thrown down when the higher sulphides (CaS4 and CaS5) break down. Finely divided sulphur is further deposited when the calcium thiosulphate (CaS2O3) breaks down forming calcium sulphite (CaSO3). The first action of the lime-sulphur on scale insects may be the loosening of the scale covering through the caustic property of the lime. Later, the free sulphur deposited by the breaking down of the polysulphide of calcium, and the calcium sulphite destroy the insects.

16. The changing of the sulphur to sulphur dioxide certainly takes place to some extent, but this oxidation can have very little to do with the insecticidal properties of the lime-sulphur.

17. Lime-sulphur is not so effective as Bordeaux mixture for fall spraying. The fact that the free sulphur deposited by the breaking down of the higher sulphides, is readily washed away by the winter rains is reason enough for not using it to control peach blight, or shot hole, and apple anthracnose. Of course, it is not to be understood that lime-sulphur will not control these diseases to some extent, but in all of our work on the Pacific Coast, which includes the fruit districts of Southern Oregon and

the deciduous fruit districts of California, lime-sulphur has not been so effective as Bordeaux mixture.

18. Since San Jose scale attacks practically all varieties of cultivated orchard fruits, many ornamentals, shrubs, vines, roses, etc., lime-sulphur should be used as a spray in the spring of the year. The best results are always secured by spring spraying with this wash. Actual experiments on a broad scale have shown that spring spraying has proven 40 to 50 per cent better than fall applications. For an insect so prolific as San Jose scale, nothing but absolute control should be considered. It is poor economy to secure but partial control of insect pests or fungous diseases by applications of the proper spray at the wrong time, or by applications of the wrong spray at the proper time.

#### Conclusion.

In conclusion the writer wishes to say to the fruit growers of the Rogue River Valley that if they will follow closely the recommendations to be found in the pages of this short bulletin, they cannot go very far astray in controlling the insect pests and fungous diseases for which the lime-sulphur, and its other compounds, have been advised. It is not too much to say that by the application of the lime-sulphur spray once a year during the spring as late as possible, meaning just before the buds open, trees will be kept clean and healthy. Not only will the lime-sulphur and some of its combinations, eradicate many insect pests and fungous diseases, but it will also rid the trees of moss, lichens and other clinging growths. A tree plastered over with scale or moss and lichens cannot be growing under advantageous conditions. A tree covered over with moss and showing very little growth, rarely ever supports insect pests and fungous parasites injurious to other trees, but it is, nevertheless, of little value to the owner.

To the man who grows trees for profit, as well as the man who grows them for pleasure, permit me to say that it is not difficult to keep under control the various pests, if we but use the remedies at hand. To the one who does not care for trees and permits parasites of all sorts to cover them, I wish to say that the ax and the saw are the very best remedies for him to use.

## CHURCH RULES LENTEN SEASON

Ash Wednesday Ushers in Period of Penance, Fasting and Prayer— Archbishop Christie Issues Rules for Catholics to Observe.

Ash Wednesday, the beginning of Lent, was observed by the Catholic and Episcopal churches Wednesday with usual services. Special services will continue throughout the lenten season.

In addition to the regular morning masses which every Catholic is supposed to attend during the 40 days of Lent, there will be special services of penance every Wednesday and Friday evening during Lent.

Archbishop Christie has issued the following statement of rules to be observed by Catholics in his diocese during the Lenten season:

1. The use of flesh meat is allowed at every meal on Sundays, as well as the principal meal on Mondays, Tuesdays, Thursdays and Saturdays, Saturdays of the Ember days and holy week excepted.

2. The use of fish, milk, butter and eggs is permitted on all days of Lent at the evening collation, and the principal meals on these days on which the use of flesh meat is forbidden.

3. In the morning a small piece of bread is allowed with a cup of coffee, tea, chocolate or some similar drink.

4. When the principal meal cannot be taken before noon, the order may be inverted and the collation taken in the morning and the dinner in the evening.

5. Lard and grease may be used in preparing the lawful viaticals.

6. Those of the faith who are exempt from the obligation of fasting can, on the days when the use of flesh meat is permitted to all of the faithful, be allowed to use it several times a day, as on the Sundays of Lent, when the obligation is not binding. The use of both flesh meat and fish together at the same meal is strictly forbidden during the whole of Lent.

Dispensation for Working People.

7. By virtue of the authority conceded to bishops in the United States by a recent pontifical indult, permission is granted to "working people" to use meat on all days of Lent, with the exception of Fridays, Ash Wednesday and the Saturday of holy week.

This dispensation from abstinence extends to all three repasts in the day.

The usual prohibition remains against using flesh meat and fish at the same meal.

Where the wage earner, in virtue of the indult, uses meat, all the members of the household may likewise use it. The church does not wish to impose upon the household the inconvenience of double cooking. But in cases of this kind those members of the household who may be bound by the precept of fasting are allowed the use of meat only at their principal repast.

Those Who Need Not Fast.

The following persons are exempt from fasting: All those who have not attained their 21st year or who have passed their sixtieth year; those whose weak health or condition otherwise may demand the full amount of nourishment, and all those whose occupations are of a laborious or exhausting nature.

Those who are excused from fasting, on account of age or hard labor, may use flesh meat more than once on the days on which it is ably.

It is eminently in accordance with the spirit of the church that all those who use the dispensations from the fast and abstinence, should supply in part, the spirit of penance, by prayers and alms deeds; by avoiding all public shows, parties and amusements, and by abstaining from all intoxicating beverages.

GOVERNOR WEST PARDONS CONVICT UPON CONFESSION

SALEM, Ore., March 2.—Benjamin Overdorf, serving a year's sentence in the penitentiary on a charge of extortion, has been pardoned by Governor West, on the affidavit of Arthur Barrett, a fellow prisoner serving a term for the same crime, exonerating Overdorf. Barrett tells the story of the crime for which both were arrested, saying that he represented himself to Overdorf as a private detective, that the two together arrested a man accused of crime and Barrett released the fellow on the payment of \$50. Later the two, Barrett engineering the deal, called on Utah dealers in liquor and secured \$50 from each on threat of arrest. Barrett asserts that at no time did Overdorf realize that his companion was not an officer or that any wrong was being done. On this showing Overdorf was pardoned.

KUBLI, EXALTED RULER OF PORTLAND ELKS

PORTLAND, March 2.—The Elks' lodge, No. 142, will elect officers tonight. It is said that K. K. Kubli, commander, will be the unanimous choice for exalted ruler to succeed Rap Apperson. Mr. Kubli is a former Jackson county boy.

Agate Justly Proud.

The Agate school proudly claims the honor of fitting three students, Carl Beebe, Harry and Stanford Aiken, for the teaching profession in this county, these young men having received certificates at the recent teachers' examination.

Much credit is due the principal, Miss Frances Aiken, who prepared this review class, of which 100 per cent passed.

Haskins for Health.

### Rev. Geo. Moseley

Cleveland, O. Mr. Moseley was platform orator in the east in 1893-94 and won the victory in some of the great strikes. He also is a fine flute and piccolo player and tenor singer. He comes from the best of homes. Come and hear him. Seats on sale at Haskins' drug store. Lecture 50 cents.

Mr. Moseley is one of the best platform orators, Bible student and minister of the gospel. He has traveled through Europe, on the seas and in many parts of the United States lecturing and preaching the gospel. He was a student of the Great British school of arts. He has been master machinist of one of the largest engine works in Pittsburg, Pa., having full charge of setting on and discharging and setting the scale of wages. He was superintendent of one of the best engine works at

### Pure Clear Sparkling

You can't afford to do without this splendid, refreshing drink. Call up and order a case sent to the house. The purest, most healthful drink known is

## SISKIYOU MINERAL WATER

P. C. BIGHAM, Agent.

NOTICE.  
Beginning April 1st, 1911, the union scale for painters will be \$4 per day. On that date the initiation fee into local union, No. 643, Brotherhood of Painters & Decorators of America, will be raised.  
The union meets every Thursday night at 8 p. m. in Angle hall. C. W. HARRINGTON, Secretary. 405 North Bartlett St. Phone 427 J. Ashland, Oregon. Haskins for Health.

## Barnard & Cornoyer ANNOUNCE THEIR

### SPRING OPENING

FRIDAY and SATURDAY  
Your Presence Is Desired. South Central Avenue

## Spring Millinery Opening

Thursday and Friday, March 2d - 3d

Latest ideas in New Spring Millinery, see the Late French Patterns. Everything new in Millinery Novelties. You are welcome to call and get acquainted with the new styles.

MRS. BROWN at KENTNER'S

## Main Street Business Property

Nets Over 8 Per Cent Interest

Best location. Great increase in value. Lot 50 feet by 140 feet. Splendid buy for investment or speculation. Special price for quick action. Address

Owner, Medford

P. O. BOX NO. 477.

## Best Pear Land in Valley, Per Acre \$40.00

The Best 60-Acre Tract of Pear Land in Rogue River Valley For the Money, only \$40.00 per Acre, for the Next Ten Days.

The superintendent of the Burrell Orchard of Medford endorses this tract of deep, free soil as exceptionally good for pears. 1 1/2 miles from Merlin, adjoining a large tract now being developed by an experienced fruit man from North Yakima.

Elegant business corner lot, 75x100, close in ..... \$5000

Elegant business corner, lot 50x100, close in ..... \$7500

Another business corner, lot, 50x100, close in ..... \$6000

THESE PRICES FOR A QUICK TURN.

A. N. PARSONS REAL ESTATE GRANTS PASS, ORE.

References: First National Bank, Grants Pass Banking & Trust Co.

## Annual Spring Opening

Tonight at 7:30 p. m. and All Day Friday

PROGRAM RENDERED AND PUNCH SERVED TONIGHT

"Why" Tchaskovsky—Miss Blanche Cox. "Because," Guy d'Hardelot—Fletcher T. Fish. "Sunbeams," Ronald—Miss Phoebe Hanse

Misses Crowell and Crawford will render several selections on Violin and Piano. Punch will be served to all. THE PEOPLE OF MEDFORD AND VICINITY ARE MOST CORDIALLY INVITED TO BE PRESENT ON THIS OCCASION

The Big Department Store KENTNER'S Main and Bartlett Streets

## Stoddard Dayton's

ARE HERE FOR DEMONSTRATION.

No cars in the Valley equal the 1911

Stoddard Dayton Models. Call on or phone

Scott V. Davis For Demonstration Phone 1372

## PLAN DIVISION OF MANCHURIA

Movement Looking Towards Partition of Nation and Its Annexation by Two Rival Powers Under Way— Division of Spoils is Program.

VICTORIA, B. C., Feb. 2.—A movement looking toward the division of Manchuria between Russia and Japan is seen here today in the advices just received from Japan. The Zhabailinskayanov, a Russian newspaper published at Chita, says that Russia is likely to take steps soon looking toward the annexation of Northern Manchuria, because, it asserts, Japan will annex Western and Southern Manchuria next year and is only delaying her program pending the completion of the Wulu Bridge on the Antung-Mukden railroad.

Japanese despatches say that the annexation of Northern Manchuria by Russia has been suggested by a Russian delegation sent by the Czar to investigate the economic conditions in Eastern Siberia and intimates that Russia and Japan have come to an understanding concerning a division of the province.

## OWNTY DOWNTY DARLIN' COST TEN THOUSAND

NEW YORK, Feb. 2.—Because he called her "Ownty Downty Darlin'—the sweetest honey bunchums girl of the Golden West," a jury in the supreme court here today decided that David H. Decker, Jr., should pay Henrietta French of Pierre, S. D., \$10,000 for breach of promise.

The girl testified at the trial that Decker was attentive to her for two years and wrote frequently. Some of the letters were introduced in evidence. One read in part:

"Dearest Darling Little Sweet-heart:

"You are the only one I care to see. Best love from your own boy."

Another effusion was: "It seems twenty years since I saw you, my ownty donty. Write, love. Many kisses. (Here there were 15 cross marks)—Your Own Davie."

"Davie" was much peeved when the verdict was returned.

## PREDICT WAR IN FAR EAST

Grain and Flour Men Profess to See Preparations for Fighting in Heavy Shipments of Provisions to China and Japan.

PORTLAND, Ore., March 2.—A number of grain and flour men of the Northwest today profess to see preparations for war in the Orient today in the heavy shipments of flour to China and Japan. The business of the last few weeks has assumed a volume almost equalling that preceding the Russo-Japanese war and this, taken in conjunction with the known fact that Japan has been shipping in unusually large quantities of rice from the Philippines and India, some grain men say means that Nippon is anticipating trouble.

Other grain men ascribe the sudden increase of flour shipments to China to the short crops in Northern China and Manchuria while the Japanese wheat and flour buyers assert that a shortage in the crop and the fact that the new higher tariff on imported wheat goes into effect in June is responsible for the large shipments into Japan.

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