ARSENATE OF LIME

Warning in Regard to its Use.

[By G. E. Saunders, Dominion Entomological Laboratory, Annapolis Royal, N. S.]

Arsenic in the form of arsenate of lime costs but little more than half of what it does in the form of arsenate of lead. At the Nova Scotia Fruit Growers' Association all of the experimenters who had used it agreed that the arsenate of lime lime sulphur combination gave less burning of the foliage than the arsenate of lead lime sulphur combination. The experiments of the Dominion Entomological Branch have for two years shown that more apples remained on the tree where the arsenate of lime lime sulphur combination was used, than where the arsenate of lead lime sulphur combination was used. Experimenters and fruit growers all agreed that no injury had followed the use of arsenate of lime and lime sulphur for the first three sprays. These are points well worth considering and when we remember that the material comes in powder form and does not cause any black sludge in the bottom of the spray tank we must admit that the poison cannot be lightly considered.

In the papers and discussions at the N. S. F. G. A., it was found that in some experiments and in several orchards, when used with lime sulphur as a fourth spray, arsenate of lime had given some slight, and in a few cases, serious yellowing. This was, without doubt, due to the slow breaking up of arsenate of lime, liberating small traces of soluble arsenic. If arsenic had been freed in any considerable quantities, as in the reaction of lead arsenate on lime and sulphur, burning instead of yellowing would have resulted.

In many cases, yellowing was caused by the grower diluting his lime and sulphur away below the spray calendar and not reducing the arsenate of lime. Knowing that arsenate of lime is unsafe unless protected, we know that it was impossible for this procedure to result in anything but yellowing.

The elimination of small quantities of soluble arsenic, such as causes yellowing, proved an easy matter in 1917. Arsenate of lime (¾ lb. to 40 gals.) which alone yellows badly, was made safe for four sprays by adding 10 lbs. of hydrated lime to 40 gals. of spray. The soluble sulphur (1 lb. to 40 gals.) arsenate of lime (1 lb. to 40 gals.) combination, which normally yellows badly was made safe for four sprays by adding 10 lbs. of hydrated lime to 40 gallons of spray. Arsenate of lead 10 lbs. to 100 gallons, which normally yellow foliage, was made safe in the Experimental Farm, experiments by adding 5 lbs. of hydrated lime to 40 gallons of spray.

For those who wish to retain the good points of arsenate of lime, and the point of cost is an important one and do away with one defect that showed on the last spray in a few cases, we would recommend the adding of 5 lbs. of lime, either slaked or hydrated, to 40 gals. of spray. We do not believe that the addition of lime is necessary for the pre-blossom sprays. We know of no case where it was necessary for the third spray in 1917 but in order to be on the side of safety we would recommend for the third spray 2 gallons of lime sulphur, 1½ lbs. of arsenate of lime and 12 lbs. of water slaked or hydrated lime to 100 gallons of water. This will not yellow apple leaves.

For the fourth spray we are recommending Bordeaux and not lime sulphur. Arsenate of lime is safe with Bordeaux.

While not more than two per cent of the growers of the Valley had any complaint of yellowing (in a meeting of the Annapolis County Farmers Association 50 men, most of the sprayers, were asked for complaints about arsenate of lime and not a man had any) we feel that the complaints made at the N. S. F. G. A., were well grounded and were due to traces of soluble arsenic. A few pounds of hydrated lime will entirely eliminate all danger of yellowing for we overcame a much more serious trouble of the same nature in the soluble sulphur arsenate of lime combination by the same means in 1917.

The low cost, the reduction in burning, the handy powder form and the freedom from sludge in the spray tank make arsenate of lime most desirable. The one defect of the new poison which showed in only a few cases in the fourth spray can be easily eliminated as outlined above.

A FAITHFUL LOT

Good Words for the Railway Mail Clerks.

"The Civilian," an Ottawa organ of the civil service, speaks in a very complimentary manner of the way in which the mail service was handled, following the explosion, by Superintendent F. P. Bent, who on Friday morning had mail forwarded on outgoing trains. Many of the staff of the post office had suffered personal injury and all were mourning the death of Transfer Agent Hiseler and the serius injury of Clerk Smith. Mr. Bent and his staff also did good work at the time the Frederick VIII and the notorious Bernstorff were detained at Halifax. Admiral Browning, through the governor-general, conveyed his thanks for "cheerful and unsparing manner in which they accepted the long hours and other inconveniences entailed in the performance of their duties."

New Freight Rates Postponed

OTTAWA, Jaunary 28—The new freight rates will not go into effect on February 1 as planned. When the inquiry concluded today, Premier Borden suggested that when Mr. Symington finished that they adjourn until March 1, and this was done.

The people who are making the appeal, have been given until February 8 to put in their case and the railways are given until February 18 to make reply. The applicants are then given until February 28 to make further reply. In the meantime the present rates in operation will stand.

Peculiar Situation at Ottawa.

From official circles Wednesday, March 6th, is the earliest possible date on which Parliament is likely to meet, and it may be a week later before the house assembles. The situation is peculiar because of the circumstances that the result of the soldiers' vote is not likely to be known for some time. It is likely that the figures will not be received and added to the home vote until towards the end of the present month. Final election results will probably be announced during the first week in February.

Almost Unbelievable.

The Annapolis Spectator says: You might not believe it possible, but is none the less a fact, that a gentleman living near this town stopped his subscription to the Spectator last week, on the ground of hard times. In spite of the fact that he's getting a dollar a cord more for wood and much more for vegetables and eggs and live stock than ever before in his life, times are too hard for him to afford three cents a week, less than half a cent a day, for his local paper. Chances are he will borrow the reading of it from a neighbor. Funny, isn't it?

May Follow the Example of the U.S.A.

An Ottawa rumor says the taking over of all the Railways in Canada by the government is being considered. This would probably be a good move as would be the acquisition of all Canadian coal mines by the government.

Hymn of Intercession.

(Tune, "St Agnes.")

The darkness falls and troubled souls seek rest;
Master, beloved, sanctified, adored,
Give us to know and pray for what is best,
Lighten our darkness, we beseech Thee, Lord.

In this sad time, when war-clouds dim our sky,
Sun, moon, and stars no light of hope afford;
From out the gloom we raise to Thee our cry,
Lighten our darkness, we beseech Thee, Lord.

To all who nobly perish in the fight
Grant Thine eternal peace, their soul's reward.
For those who sacrifice health, limbs, or sight,
Lighten their darkness, we beseech Thee, Lord.

Forgive us all our sins, forgive our foes,
Let them repent who follow not Thy Word.
The tyrants steeped in blood, we pray for those,
Lighten their darkness, we beseech Thee, Lord.

Oh, Man of Sorrows, comfort all who weep,
Let Thy dear pity on their hearts be pour'd;
For those, to-night, too sorrowful to sleep,
Lighten their darkness, we beseech Thee, Lord.

Oh, King of Love and Peace, whose wondrous birth
Long years ago a broken world restored,
Bring once again Good Will and Peace to earth;
Lighten our darkness, we beseech Thee Lord. Amen.

—Margery Hamilton Fellows in the Westminster Gazette

An Advertising "Pome."

[Canadian Grocer.]

There was an old geezer,
And he had a lot of sense
He started up a business
On a dollar eighty cents.
The dollar was for stock
And eighty for an ad.
Brought him three lovely dollars
In a day, by dad!
Well, he bought more goods
And a little more space,
And he played that system
With a smile on his face.

The customers flocked
To his two by four
And soon he had to hustle
For a regular store.
Up on the square,
Where the people pass,
He gobbled up a corner
That was all plate glass.
He fixed up the windows
With the best he had,
And told them all about it
In a half page ad.

He soon had 'em coming
And he never, never quit,
And he wouldn't cut down
On his ads. one jit.
And he kept things humping
In the town ever since,
And everybody calls him
The Merchant Prince.
Some say it's luck,
But that's all bunk—
Why, he was doing business
When the times were punk.
People have to purchase
And the geezer was wise—
For he knew the way to get 'em
Was to advertise.

Food Bulletins

Under the direction of the Development of Agricultural Resources Committee, recently appointed by the government of Nova Scotia, a number of food bulletins will be issued, dealing in the main with the special conditions necessary to be considered at the present time. The first of these is a bulletin on Wheat Growing in Nova Scotia, by S. J. Moore and Prof. Cumming. A copy has been received at this office and is most interesting. It should be productive of good results.

French and Italian Shipping Losses

ROME, January 24—The weekly report of Italian shipping losses gives the sinking of only one small sailing vessel. One steamship was unsuccessfully attacked.

PARIS, January 24—The sinking of two French vessels of more than 1,600 tons and one of lesser size, is shown in the weekly report of French shipping losses. Four vessels were attacked unsuccessfully.

New York Papers Double Their Price

NEW YORK, Jan. 24—The one cent daily papers of greater New York, both morning and afternoon, will advance their price to two cents, beginning Saturday morning next.

The Casualty List.

OTTAWA, January 24—Only one name from Maritime Provinces appears in today's casualty list, that of F. J. Snellgrove, of Hillsborough, N. B., who is reported as having died of wounds.

Minard's Liniment Cures Colds, Etc.

CORRESPONDENCE

Volunteers Wanted.

To the Editor of the MONITOR:

DEAR SIR:—May I make use of the columns of your paper to place before your subscribers some facts relative to the battery under my command.

This unit is open today for any physically fit man who desires voluntarily or who is liable under the Military Service Act to serve his country in the field. All men liable under the Act can enlist in the ordinary way; any man of class 1 can report for duty at any time before he is ordered to report by the Registrar under the Act; prvoided:—(a) that he produces the counterfoil of his report for service; and (b) that he produces a certificate from his employer, stating that the latter has not lodged a claim for the man's exemption on the ground of national interest.

Owing to the special nature of artillery work, a high standard for recruits is required in this branch of the service. Physical requirements are, height, 5 feet, 7 inches, minimum chest measure 33 inches. In addition, applicants must possess a good standard of intelligence.

The 10th Siege Battery is representative of the province of Nova Scotia. During the first year of its existence, it sent overseas seven officers and four hundred and fifty other ranks, the majority of whom are now in France. Drafts are constantly being prepared, and as soon as ready will be sent overseas to receive their final training in England. This unit presents the best opportunity to-day to anyone wishing to join the Artillery. Intending applicants may communicate with me by letter at the address below. If their application is approved transportation will be forwarded to them.

Thanking you for valuable space, I am yours very truly,

H. R. LACON, Lt. C. G. A.
O.C. 10th Siege Battery, C.E.F.
Cambridge Battery,
Halifax, N. S.

DO YOU SUFFER FROM RHEUMATISM?

If you had suffered for years from Rheumatism and then had found a treatment that banished your pains and made you spry on your feet once more, would you want to keep the remedy secret, or would you want to pass on the good word to other sufferers?

It is an outstanding feature of the hundreds of letters received by a prominent firm of manufacturing druggists that after returning thanks for the relief afforded, the wish is expressed to let others know the good news.

Here are a few extracts that will interest anyone who has Rheumatism—

"I have recommended Gin Pills to some of my friends who are troubled in the same way."

"Would advise all sufferers from Rheumatism to try Gin Pills."

"I recommend Gin Pills to everyone suffering as I did."

"I take great pleasure in recommending Gin Pills to all sufferers from Rheumatism."

If you would like the names and addresses of these people who are so happy in recommending Gin Pills, and also a free sample to try for yourself, simply drop a line to the National Drug & Chemical Co. of Canada, Limited, Toronto, (U.S. address—Na-Dru-Co Inc. 202 Main St., Buffalo, N.Y.) 130

Dealers sell Gin Pills on a strict guarantee of satisfaction or your money back. 50c. a box or 6 boxes for $2.50.

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means lower priced Groceries for you. Everything we can do to reduce the cost of handling, to eliminate waste, to KEEP THINGS CLEAN, to buy the best goods as cheaply as possible, means better service to you, and lower prices.

MACARONI

(When you realize that Macaroni is made from hard wheat only, you can see that it must be a body-building food and one that will replace meat at any meal.)

CATELLI'S READY CUT 2 for 25c.
LION BRAND 10c
SPAGHETTI, large package, 2 for 25c.

CHEESE

Just received some good Ontario Cheese .....30c. lb.

"White Lily" CREAM SODAS

In bulk, good and crisp ..16c. lb.
Also sold in pails and 8 and 15c. pkg.

PEANUT BUTTER

In bulk .....35c. lb.
Large Jars .....20c. each

MAPLE BUTTER

(Made from pure Maple Sugar and Cream) .....50c. can

Phone your orders; your goods will please the same as though you personally selected them.

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Goods delivered 'Phone 36-11

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More Bread and Better Bread---and Better Pastry, too.

QUEEN HEATERS

The Queen Heater is more of a heating machine than it is a stove, can be regulated like a lamp, you can keep your room at a any temperature you wish, has a vertical hot blast draft tube, feeding the fuel with hot air all the time, will save you 25 to 50% fuel. No ashes, dust or soot can can get out, the cleanest stove in the world, no trouble to operate, made of Russian Iron, lined with sheet iron. We have them plain and with nickle plate trimmings, from $0.25 to $12.75

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2 Slightly Used Pianos
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Travelling Salesman for Digby and Annapolis Counties

N. H. PHINNEY

LAWRENCETOWN, N. S.

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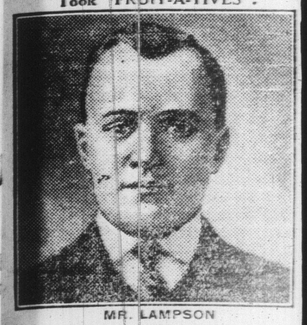

MR. LAMPSON

Verona, Ont., Nov. 11th, 1915.

"I suffered for a number of years with *Rheumatism and severe Pains in Side and Back*, from strains and heavy lifting.

When I had given up hope of ever being well again, a friend recommended "Fruit-a-tives" to me and, *after using the first box I felt so much better* that I continued to take them, and now I am enjoying the best of heath, thanks to your remedy".

W. M. LAMPSON.

If you—who are reading this—have any Kidney or Bladder Trouble, or suffer with Rheumatism or Pain In The Back or Stomach Trouble—give "Fruit-a-tives" a fair trial. This wonderful fruit medicine will do you a world of good, as it cures when everything else fails.

50c. a box, 6 for $2.50, trial size, 25c. At dealers or sent postpaid on receipt of price by Fruit-a-tives Limited, Ottawa.

TRAVELLERS' GUIDE

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R. U. PARKER,
Gen'l Passenger Agent

H. & S. W. RAILWAY

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Read down	STATIONS	Read up
11.10 a.m.	Lv. Middleton Ar.	5.00 p. m.
11.41 a.m.	*Clarence	4.28 p. m.
12.00 m.	Bridgetown	4.10 p.m.
12.32 p.m.	Granville Centre	3.43 p. m.
12.49 p.m.	Granville Ferry	3.25 p. m.
13.12 p.m.	*Karsdale	3.05 p. m.
13.30 p.m.	Ar. Port Wade Lv.	2.45 p. m.

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