

# The Weekly Monitor

VOL. 43

BRIDGETOWN, ANNAPOLIS COUNTY, NOVA SCOTIA, FEBRUARY 23, 1916

NO 46

## ARSENATE OF LIME AS A SUBSTITUTE FOR ARSENATE OF LEAD

(By G. E. Sanders)

Last season eighty pounds of arsenate of lime or calcium arsenate were sent to the Dominion Entomological Laboratory by the Thomas Chemical Company to be tested out on apple trees. This substance, a fine white powder, containing three times as much arsenic, therefore three times as strong as paste lead arsenate, was tested on four orchards belonging to Geo. Hoyt, Annapolis; F. H. Johnson, Bridgetown, A. Fitz Randolph, Bridgetown, and S. B. Chute, Berwick.

The results in the Hoyt orchard on Nonpareils were:

**Lead Arsenate, Lime and Sulphur**  
35 per cent. Spot, 3.1 per cent. Bud-moth, 2.2 per cent. Fruit Worm, 4 per cent. Codling Moth.

**Arsenate of Lime, Lime Sulphur**  
25 per cent. Spot, 2.3 per cent. Bud-moth, 1.8 per cent. Fruit Worm, 3 per cent. Codling Moth.

In A. Fitz Randolph's orchard the results were, on Gravensteins:

**Arsenate of Lime, Lime Sulphur**  
Nozzle, Mist:—  
22.65 per cent. Spot, 2.2 per cent. Bud-moth, 7.2 per cent. Fruit Worm, 0.2 per cent. Codling Moth.

**Nozzle, Drive:—**  
9.8 per cent. Spot, 1.9 per cent. Bud-moth, 7.45 per cent. Fruit Worm, — per cent. Codling Moth.

**Lead Arsenate, Lime Sulphur**  
Nozzle, Mist:—  
57.2 per cent. Spot, 2.1 per cent. Bud-moth, 10.3 per cent. Fruit Worm, — per cent. Codling Moth.

**Nozzle, Drive:—**  
19.07 per cent. Spot, 1.3 per cent. Bud-moth, 4.5 per cent. Fruit Worm, — per cent. Codling Moth.

**On Golden Russets:**

**Arsenate of Lime, Lime Sulphur**  
Nozzle, Mist:—  
33.8 per cent. Spot, 3.5 per cent. Bud-moth, 10.3 per cent. Fruit Worm, — per cent. Codling Moth.

**Nozzle, Drive:—**  
15.9 per cent. Spot, 1.4 per cent. Bud-moth, 6.9 per cent. Fruit Worm, — per cent. Codling Moth.

**Arsenate of Lead, Lime Sulphur**  
Nozzle, Mist:—  
31.5 per cent. Spot, 2.7 per cent. Bud-moth, 0 per cent. Fruit Worm, — per cent. Codling Moth.

**Nozzle, Drive:—**  
23.2 per cent. Spot, 1.9 per cent. Bud-moth, 7.3 per cent. Fruit Worm, — per cent. Codling Moth.

While the tests show up to a certain extent the advantages of the drive, over the mist nozzle, they also show that where Arsenate of Lime was used the control of insects was practically the same as where Arsenate of Lead was added to the spray.

This was to be expected as the amount of arsenic added was in each case the same.

We have for years noticed and been bothered by a black skum getting in the bottom of the spray barrel. We have found from various sources that this black skum is Lead Sulphide. A useless neutral black slimy substance which is formed in the reaction which takes place when Lead Arsenate is added to Lime and Sulphur, the lead of the poison and the sulphides of the fungicide joining to become this black slimy substance in the bottom of the tank. With the substance forming we must also have the formation of an equal quantity of Calcium Arsenate or Arsenate of Lime. So for years we have been spraying Arsenate of Lime on our trees and did not know it.

Now the Sulphur in Sulphide form is what gives value to our Lime Sulphide solution as a fungicide and when we precipitate this sulphur out we expect our solution to be reduced in value. This is proved out by our tables. The percentages of black spot giving in four comparisons out of five the advantage to the Arsenate of Lime. The comparisons were as follows:

Per cent. Black Spot Arsenate of Lime and Lime Sulphur:	Per cent. Black Spot Lead Arsenate and Lime Sulphur:
25 9.8 22.65 33.8 15.9	35 19.7 57.2 31.5 23.2

When Arsenate of Lime is added to Lime Sulphur solution no chemical change whatever takes place, the sulphur is left as strong as ever, which gives us the advantage noted in the control of Blackspot. No injury whatever was noted to the foliage that could in any way be blamed to the use of Arsenate of Lime.

It may be noted that a slight advantage in insect control is found when Arsenate of Lime is used with a drive nozzle. This is on account of its one defect, not being quite so good a sticker as Lead Arsenate, but even at that final test "whether it killed the insects or not" shows it to be equally as good as Arsenate of Lead.

In the face of this and other evidence from the United States, we do not think that anyone need hesitate about using Arsenate of Lime at the strength recommended, that is 2-3 to 3-4 or a pound to 40 gallons of water, as it is just three times as strong in arsenic as Paste Lead Arsenate.

This new substance must not be mistaken with Arsenate of Lime which was made at home and on account of its being an Arsenite, gave serious burning whenever used.

Recruiting has commenced in Nova Scotia for the 185th Highlanders, under command of Lt-Col. F. P. Day and for the 193rd Battalion under command of Lieut.-Col. John Stanfield, M. P.

## LAWRENCETOWN RED CROSS SOCIETY "AT HOME"

The ladies of Lawrencetown Red Cross Society gave a most enjoyable "at home" on Tuesday afternoon, Feb. 15th, in the beautiful new Demonstration Hall, so kindly loaned for use of Red Cross Society by President and Executive Committee of Annapolis County Farmers' Association. There was a large number present, although the weather was cold, and represented the two auxiliaries of Williamston and Lawrencetown South Side. Also from the branches of our chartered Society in Clarence, East Ingleville, Port Lorne, Port George and Albany. The room looked charming with the beautiful array of daintily decorated tea tables and the bright glow of the cheering fire in the spacious fireplace, and the animated faces, and beautiful costumes of the ladies present.

"After a social hour spent in making every one feel perfectly "at home" a short programme was rendered. Opening Chorus: "O Canada" in which all joined heartily, while many a tear was seen to steal down the cheek, while thinking of loved ones far away who were fighting and dying for our loved Canada. Then followed the address of welcome by the President, who in her usual inimitable style, urged all to more consecrated and redoubled effort for the future, in caring for our noble men, who are fighting for us as well as God, Home and Native Land.

Then followed responses from all the various Auxiliaries and Branches present in which they gave bright and cheering accounts of the work done by their respective Societies, and not a glimmer of pessimism was shown, but indomitable courage and confidence in ultimate victory.

Then one of our visiting ladies, Mrs. E. C. Shaffner, kindly consented to render a patriotic selection and was heartily applauded.

Then followed a catechism of questions and answers sent from Headquarters and Mrs. Heber Boland in her clear, concise way, explained away many questions that often puzzle us in our work. Miss West rendered a new Patriotic song, "We're off to fight the Germans," half of proceeds of sale at 25 cents per copy go to swell our Red Cross work. Any reader wishing a copy apply to Mrs. Fenlon Morris.

Then followed afternoon tea and as the ladies of Lawrencetown are justly famed for skill in cooking, and by the pleased faces of guests and the peals of silvery laughter filling the room, needless to say it was much enjoyed. To close, the "National Anthem" was sung, not forgetting to add "God Save our Splendid Men, Send them Safe Home Again," etc. to which each heart responded with a silent amen.

The Citizens of Berlin, Ont., want the name of the City changed. They want a name more in keeping with

## THE EUROPEAN WAR

### Russians Have the Turks in Full Pursuit

PETROGRAD, Feb. 20, via London.—The Russians are pressing the advantage gained at Erzerum on both flanks. On the right along the Black Sea coast by the co-operation of the sea and land forces, they are driving the Turks from one position after another to the east of Trebizond, and it is expected that active operations against that important seaport will not be long deferred.

In the last two days the Russians have occupied Widje and pressed forward ten or twelve miles westward. The fleet has destroyed, in succession, several shore batteries which might have been of assistance to the Turks, and by keeping well in advance of the land forces and by destroying bridges over several streams in the path of the retreating Turks has rendered their retreat more difficult. The fleet has been working so close to the shore that warships have been reached by rifle fire from the Turkish troops. On the other hand, the ships have spent considerable time in the ranks of the Turks by dropping shells among them.

On the left flank, after the occupation of Koph, the Russians pushed on to Mush and Aclat, the latter on the north shore of Lake Van. From Koph to Mush, sixty miles over mountainous roads, they fought several battles, and occupied Mush by storm.

The Turks fled southward towards Diarbekr, the next objective of the Russian army. Once in possession of Diarbekr it is only a day's march to Bagdad railway, the last remaining communication into Syria.

The rapid offensive beyond Erzerum, it is believed here, makes it probable that the retreat of the Turkish corps operating along the Black Sea coast, and of those troops which were active in the Mush district before the Russian occupation, will be entirely out of, and that the main Turkish armies will be surrounded. This fate has already overtaken the Thirty-Fourth Division of the Tenth Corps, which was ordered from Olti to Erzerum before the fall of the fortress.

### French Victors in Air Battles

PARIS, Feb. 21.—The day was marked by a number of air fights. Over Tagedoorf, east of Altkirch, one of our aeroplanes, attacking a Fokker at close quarters, fired shots at him. The enemy machine slipped over on its right wing, then fell. In the region of Epinal an Albatross machine was brought down by our artillery fire. In the region of Bures, north of the forest of Parroy, a German machine attacked by two of our machines was brought to the earth in our lines. The pilot and passenger were killed. A squadron of seven French aeroplanes gave combat to four enemy aeroplanes in the region of Vigneulles-Les-Hattonchattel. Two of the latter were forced to make a landing; the other two took to flight. Enemy aeroplanes have bombed Fignes, Bar-Le-Duc and Revigny. Near the last mentioned place an enemy squadron composed of fifteen machines was attacked by one of our pursuing squadrons and was forced to give flight, in the course of which a German machine was beaten down near Clivry-en-Ardenne. The two aviators were made prisoners. A second enemy aeroplane was pursued into its own lines.

"One of our bombing groups, composed of seventeen machines, dropped sixty-six shells of heavy calibre on the aviation field at Habsheim; and on the freight station at Mulhouse. Another group of twenty-eight machines dropped a number of projectiles on an enemy munitions factory at Pagny-Sur-Moselle. Following these different operations all our aeroplanes returned to their lauding group. A Zeppelin, proceeding from St. Menshould toward the south, was shelled by a section of cannon at Revigny. Struck by an incendiary shell, the Zeppelin fell in flames in the neighborhood of Brabant-Le-Roi."

### An Allied Submarine Reaches the Bosphorus Through the Dardanelles

LONDON, February 21.—An Allied submarine passed through the Dardanelles on Tuesday last, reached the Bosphorus and torpedoed one tug and six transports laden with munitions, according to an Athens despatch to Reuters Telegram Company. The presence of the hostile submarine caused a panic at Constantinople.

## WAR BRIEFS

The German Government purposes to tax old bachelors.

A Danish merchant has been sentenced to 12 years imprisonment for espionage in Germany.

The London Times says it is estimated that 20,000 German deserters are seeking refuge in Switzerland.

Sixty-nine Colonels, real and honorary, are said to be in the Commons and Senate of Ottawa. If they deserve the honor, it is all right.

Two Indian contractors, charged with aiding the enemy to blow up a train on a Ugavanda Railway, have been found guilty and executed.

Without a dissenting voice the Canadian Parliament voted to ask the Imperial authorities to extend the life of the Parliament for one year, on account of the war.

A line of railway, 530 miles long, has been finished, connecting Petrograd with the White Sea, so as to relieve the Port of Archangel from congestion of freight.

A terrific explosion in an Austrian arsenal killed 195 employees. This arsenal manufactured some of the largest guns which were used in Belgium and France, early in the war.

A bill will be presented to the Manitoba Legislature to raise \$3,000, half by the Government and half by private subscription, to give to widows of soldiers killed in the war \$25 per month.

About a bushel of letters, stubs and other papers of Von Papen were seized by the British. They seriously implicated the German Embassy in Washington in attempts at incendiarism and arson.

It is reported that six German submarines are in the Sea of Marmora. Their object seems to be to watch the Turks, in case of refusal to do Germany's bidding, as well as to watch the enemy.

It is probable a new minister will be added to the British Cabinet, a Minister of Aviation. It is suggested that Lord Northcliffe be appointed to this position. Perhaps, if he had the office he would be less opposed to the Coalition Cabinet.

## LEANDER S. MORSE OF DIGBY, DEAD

He Was the Oldest Inspector in the Province

Leander S. Morse, school inspector for the Counties of Digby and Annapolis, and the senior inspector in Nova Scotia, died at the Waverly Hotel, Digby, at an early hour Sunday morning, aged seventy-two years. He had been in ill health for some time but was always able to attend to business until a few weeks ago. He had spent Christmas with his daughter in New York and returned home ill, accompanied by Mrs. Morse. He was so ill that they did not go to their residence on Queen street, but decided to remain at the Waverly Hotel. He is survived by a widow, formerly Miss Cordelia Victoria Tupper of Bridgetown, and two sons, Frank, who is ill in New York, and William, in California; and one daughter, Mrs. J. Waldo Smith, of New York.

Mr. Morse was a member of the Digby Baptist Church and of the choir. He did much to improve the Digby and Annapolis Counties schools and their general working for the past quarter of a century. He was born at Nictaux, this County, November 22nd, 1843, of United Empire Loyalist stock, and was educated at the Horton Academy and Acadia College, graduating from the latter institution in 1866 at the head of his class, and in addition receiving diplomas for honors in classics.

After studying law in the office of the late T. D. Ruggles, in this town, and the late Hon. J. W. Ritchie, Halifax, he was admitted to the Bar in 1870, having obtained a first-class certificate at his final examination. He practiced at Bridgetown for a time in partnership with the late Hon. J. C. Troop, Speaker of the House of Assembly. On the death of Mr. Troop he entered into partnership with the late J. G. H. Parker, under the name, style and firm of Morse and Parker, which continued until December 31st, 1879. In March, 1871, he was appointed inspector of schools for the County of Annapolis, and in 1876 was appointed a master of the Supreme Court.

In 1877 Mr. Morse went to Great Britain as a delegate, to investigate the claims of the descendants of Anne and Lydia Church to the Church estate, so-called, said to have been left by Samuel Church, of Breck, Wales. In January, 1880, he was appointed inspector of Annapolis and Digby Counties on the readjustment of the inspectorial districts during the time of the Holmes-Thompson Administration.

As an inspector, Mr. Morse was always been prompt and painstaking in the discharge of his duties, and he enjoyed the confidence of the educational department at Halifax, and the respect both of the teachers of his division and of the general public. He was the only inspector in the Province who had never been a teacher, and he had held the office of inspector longer than any other similar official. The remains were brought to Bridgetown, Tuesday, accompanied by the widow, the daughter, and Mrs. Shoemaker, sister of Mrs. Morse. The funeral service was held in the Baptist Church conducted by Rev. G. C. Warren, assisted by Rev. A. R. Reynolds of the Methodist Church. The School Commissioners of Bridgetown, teachers and pupils of the public schools, were present to pay their last tribute of respect to the departed. The remains were interred in the Riverside Cemetery.

The pay distributed at the New Glasgow Steel Works on Wednesday was the largest on record and totaled \$112,000. There are some 3,000 employees on the force. The foregoing figure represents a fortnight's pay. It can therefore be seen that the annual wage bill at the Steel Works, travelling at the present day speed, would amount to \$2,900,000.

A court-martial in Liege has sentenced 19 persons to various terms of imprisonment for remarks insulting to the Kaiser and the German army, etc.

Two wealthy Americans have given to France a hospital train of thirteen cars, including a sleeping and a dining car. It is fitted with up-to-date accommodations and will carry 225 wounded persons.

Look here, old fellow, you must come up and see me. I own an aeroplane.

Thanks, awfully, and you must come down and see me. I own a submarine.

The German Consul General in San Francisco has been indicted by a Federal Grand Jury for connection with a plot to blow up munition plants and interfere with interstate commerce.

Twenty other indictments were made in the case of the S. S. Sacramento, for false clearance papers for the ship, and for supplying warships at sea.

## A LETTER FROM SIR FREDERICK FRASER RE RECRUITING

Halifax, N. S., Feb. 1, 1916.

To the Editor of "Monitor."

Sir,—Among the many products of Nova Scotia there is none of which she may be more justly proud than her splendid manhood. Her sons are intelligent, industrious and brave and have attained to the highest positions of responsibility in our own and other lands. But never has this manhood received a more urgent and noble call than at the present hour. Canada has authorized an army of half a million men. This is a strenuous but glorious demand upon our resources. 5,000 of these must be raised at once in Nova Scotia. Our Province has given generously already. Not a few of our lads who have been successful abroad have flocked home to join the colours. Now comes the summons for every available man. Nothing is any longer of consequence but to win out and to obtain security and freedom for the future. In this appeal the Recruiting Committee rely with implicit confidence upon that patriotic co-operation that the press, and your paper among others, have given, since the very inception of the war.

The arrangements for enlistment are most attractive. The new recruits are to be bracketed in a Highland Brigade, along with the 85th, one of the finest bodies of men ever gathered on our shores. The very act of enlistment, even should a soldier never fire a shot, will do something to hasten the victory. The enemy is surveying with evident uneasiness the swelling ranks of the British Army. The moral effect of a universal response would be stupendous. If we join in dribbles, no one can tell how long the agony will endure; if we all join together, the end is in sight. The enemy is overwhelmed. There are regiments in Scotland without a man, shall it be so in New Scotland? Never has cause been more honourable; never has peril been so deadly. Life, love and liberty are at stake; the ruin of Belgium and Serbia must be averted. Therefore

"For all we have and are  
For all our children's fate  
Stand up and meet the war  
The Hun is at the gate."

Yours faithfully,  
C. FREDERICK FRASER,  
Acting Chairman Nova Scotia Recruiting Association.

## MANUFACTURERS LIFE REPORT

The twenty-ninth annual report recently submitted to the policyholders and shareholders of the Manufacturers Life Insurance Company was very satisfactory in every respect. The total net premium income amounted to \$3,232,337.44, the income from interest, dividends, etc., \$1,155,526.32, making a total income of \$4,387,863.76. The payments to policyholders amounted to the large sum of \$1,824,161.83, in addition to which the company set aside the further sum of \$1,476,365 for reserves and dividends, and the general surplus was increased \$402,325.95. After setting aside a special mortality reserve of \$125,000, and dividends payable to policyholders in 1916, amounting to \$266,138, the general surplus of the Company amounted to \$2,254,655.10. The surplus earned, \$789,102.79, was the largest in the history of the Company. The new insurance issued and received amounted to \$12,599,040, and the total insurance in force now amounts to \$83,746,172. The assets of the Company have now reached the large sum of \$20,744,678.34, and the policy reserves \$17,337,011.

The policyholders of the Manufacturers Life can feel they are safely insured in a company making satisfactory progress.

The Superintendent of Insurance at Ottawa when recommending that the proposed merger be not approved, said that the excellent financial condition of the Manufacturers justifies the belief that its future profits will be on a par with those of the best companies, and that the interests of the policyholders will not suffer by the company not completing the proposed amalgamation.

The Manufacturers Life has evidently made thorough preparation for a future aggressive insurance campaign. It has appointed Mr. J. E. McKechnie, F.L.A., General Manager and Actuary, Mr. McKechnie joined the Company in the year 1903, after graduating from Queen's University. He is a Fellow of the Actuarial Society of America, and a Fellow of the Institute of Actuaries of Great Britain.

British distilleries will be converted into munition factories. Instead of killing the British people the distilleries will henceforth manufacture deadly doses for the enemy.

## New Spring Goods

Silk Spot Chiffons  
Colored and Black Voiles  
Princess Crepes  
Batistes, Ginghams, Prints and  
Cambrics  
Checked and Striped Muslins  
9½ cents upwards  
White and Unbleached Cottons  
Pillow Cottons and Sheetings  
Turkish Towels  
Corsets and Corset Waists

Lest you get "Stung" examine these before parting with your cash

WALTER SCOTT  
"The Keen Kutter"

Granville Street Next Door Public Telephone Office Bridgetown N. S.

## GinPills FOR THE KIDNEYS

### How They Relieve

Hardfield, N. B.  
"It affords me great pleasure to convey not only to you but to all sufferers from Backache and Rheumatism, the great relief I have obtained from the use of Gin Pills. I feel thankful to you. I recommend Gin Pills to everyone suffering as I did."

ROBERT M. WILSON

Gin Pills are 50c. a box or 6 boxes for \$2.50 at all druggists. Free sample on request to  
National Drug & Chemical Co. of Canada Limited, Toronto.