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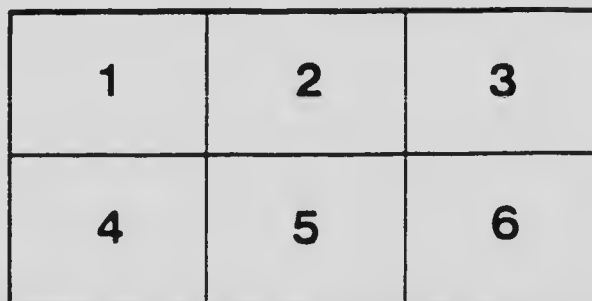
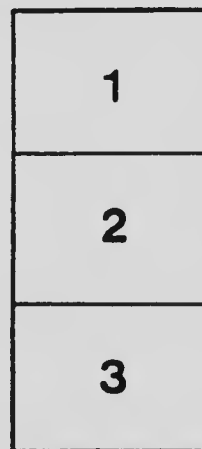
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Vertical text along the left edge, likely bleed-through from the reverse side of the page. The text is extremely faint and illegible.

O. H. M. S.

W. J. Gerald
Deputy Minister.

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

BULLETIN No. 205.

Arsenate of Lead.

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LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA.

BULLETIN No. 205

Arsenate of Lead.

OTTAWA, March 31, 1910.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to hand you a report dealing with 26 samples purchased as Arsenate of Lead. This collection was made at the suggestion of the Fruit Division of the Department of Agriculture; the Ontario Agricultural College, Guelph, and others interested. Paris Green is specifically named, in Schedule 5, of the Adulteration Act, and has been the subject of four reports by this department (see Bulletins 40, 42, 88 and 158). It was considered that the newer insecticide, which is to some extent replacing Paris Green, should be examined; and the accompanying report will enable agriculturists to form an idea of the commercial article, as purchased by our inspectors.

Instructions were issued quite distinctly, for the purchase of Arsenate of Lead; but certain of our inspectors have not been guided by these, and I find such substances as helleore, pyrethrum, &c., accepted by the official, instead of Arsenate of Lead. This is particularly the case with the inspectors for Quebec, London and Kingston districts.

In consequence of these mistakes, I find only eighteen (18) samples, true to name. The methods of analysis used are essentially those prescribed by the Association of Official Agricultural Chemists (see Bull. No. 107, revised, p. 239, Bureau of Chemistry, Washin

It will be noted that the physical condition in which this article is offered for sale varies from practical ... water content amounting to 49 per cent. As calculated upon the original ... and also upon the dry material, the variations are as follows:—

Arsenic (As_2O_3)—		
	Original.	Dry.
Maximum	29·90	30·90
Minimum	12·44	22·28
Mean	19·57	27·09
Lead (PbO)—		
Maximum	72·10	72·10
Minimum	33·46	62·53
Mean	48·55	66·54

As we have no Standards for this article, I am unable to offer any opinion. It is however quite evident that it varies greatly in value, and that legal standards, and limits of variability should be defined.

I beg to recommend the publication of this report as Bulletin No. 205.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	

DISTRICT OF NOVA SCOTIA—

1909.						
Dec. 6	Arsenate of Lead (Insecticide).	41766	Nat. Drug and Chem. Co., Halifax, N.S.	1 jar.	15	Vreeland & Co., New Jersey, U.S.A.
" 13	"	41767	T. P. Calkin & Co., Kentville, N.S.	1 lb.	20	Niagara Sprayer Co., Middleport, N.Y.
" 13	"	41768	B. H. Dodge, Kentville, N.S.	1 "	25	Merrimac Chem. Co., Boston, Mass.
" 15	"	41769	A. M. Bell & Co., Halifax, N.S.	1 "	25	" " "
" 15	"	41770	C. A. Barnstead, Halifax, N.S.	1 "	40	Unknown

DISTRICT OF NEW BRUNSWICK—

Dec. 2	Arsenate of Lead (Insecticide).	39608	Nat. Drug and Chem. Co., Ltd., St. John, N.B.	3 pkgs	120	Vreeland Chem. Co., Little Falls, New Jersey, U.S.
" 14	"	39609	R. T. Mack, Fredericton, N.B.	3 "	120	Nat. Drug and Chem. Co., Ltd., St. John, N.B.
1910.						
Jan. 3	"	39610	W. H. Thorne & Co., St. John, N.B.	3 "	75	The Grasselli Chem. Co., Cleveland, Ohio, U.S.

DISTRICT OF QUEBEC—

1909.						
Dec. 22	Arsenate of Lead (Insecticide).	36507	L. E. Martel, 91 Rue St. Joseph.	1 lb.	25	Lyman's, Ltd., Montreal
" 22	"	36677	J. Masson, 808 Rue St. Valier	1 "	75	W. Brunet & Cie, Quebec
" 22	"	36678	" " "	1 "	75	Toronto Pharmacal Co.
" 22	"	36679	" " "	1 "	65	"
" 22	"	36680	J. Laroche, 405 Rue St. Valier	1 "	25	Nat. Drug Co., Montreal

DISTRICT OF MONTREAL—

Dec. 17	Arsenate of Lead (Insecticide).	4036	Lyman's, Ltd., Montreal	3 jars.	75	Grasselli Chem. Co., Cleveland, Ohio.
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* Is not arsenate of lead.

ARSENATE OF LEAD (INSECTICIDE).

Inspector's Report. (Is not an expression of opinion).	RESULTS OF ANALYSIS.										Remarks and opinion of the Chief Analyst.	
	Moisture in Sample as Received.	Results Calculated on the dry Sample.							Percentage Weights in original Sample			No. of Sample.
		Total Arsenic p.c. As ₂ O ₃ .	Total Lead p.c. PbO.	Water Soluble Solids.	Water Soluble Arsenic p.c. As ₂ O ₃ .	Water Soluble Lead p.c. PbO.	Water Soluble Impurities.	Arsenic.	Lead.			

R. J. WAUGH, INSPECTOR.

	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.				
.....	0.15	28.75	63.64	1.50	0.05	0.00	1.45	28.75	63.64	41763	
"Niagara" brand	35.64	28.02	62.53	3.50	0.17	0.00	3.33	18.02	40.29	41767	
"Swift's" brand.	48.82	27.31	68.06	0.50	0.05	0.00	0.45	13.97	34.83	41768	
"....."	36.32	26.59	68.42	0.50	0.05	0.00	0.45	16.93	43.56	41769	
Labelled "National" arsenate of lead.	46.92	30.90	63.83	0.50	0.05	0.00	0.45	16.40	33.88	41770	

J. C. FERGUSON, INSPECTOR.

	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.				
.....	47.56	29.46	63.83	1.00	0.05	0.73	0.22	15.45	53.47	30608	
.....	47.72	30.61	64.01	0.50	0.05	0.36	0.09	16.01	33.46	30609	
Grasselli arsenate of lead.	41.87	21.29	69.71	0.50	0.05	0.00	0.45	14.11	40.53	30610	

E. BELAND, INSPECTOR.

	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.				
.....	36507	Labelled "hellebore."
.....	36677	Labelled "Persian insect powder."
.....	36678	Labelled "insect powder."
.....	36679	Labelled "Persian insect powder."
.....	36680	fs hellebore.

J. J. COSTIGAN, INSPECTOR.

	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.				
.....	44.34	26.59	68.98	0.50	0.05	0.00	0.45	14.80	38.90	40386	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
DISTRICT OF KINGSTON—						
1909.						
Nov. 29	Arsenate of Lead (Insecticide).	41182	Nat. Drug Co., Kingston ...	1 lb.	25	Vendors.....
" 29	"	41183	J. A. McFarlane, Kingston.	3 tins.	75	International, Toronto ...
DISTRICT OF TORONTO—						
Dec. 16	Arsenate of Lead (Insecticide).	41307	The St. Catherine's C. S. and F. Co., Ltd., St. Catharines	1 lb.	15	Chem. Laboratories, Ltd., Toronto.
" 21	"	41308	Chemical Laboratories, Ltd., Toronto.	1 "	15	Vendors.....
DISTRICT OF LONDON—						
Dec. 17	Arsenate of Lead (Insecticide).	41706	W. B. Bailey, Mitchell	3 oz.	60	Nat. Drug Co., Toronto ...
DISTRICT OF WINDSOR—						
Dec. 13	Arsenate of Lead (Insecticide).	42686	Spramotor Co., London.....	3 jars.	90	Merrimac Chem. Co., Boston
" 13	"	42697	A. J. Morgan.....	3 tins.	75	Leggett & Brother, New York.
DISTRICT OF VICTORIA—						
Dec. 17	Arsenate of Lead (Insecticide).	41629	Wm. Jackson & Co., Victoria, B.C.	1 lb.	25	Henderson Bros., Ltd., Victoria, B.C.
" 17	"	41630	The Brackman Ker Milling Co., Victoria, B.C.	1 "	20	Merrimac Chem. Co., Boston, Mass.
" 17	"	41631	" " "	1 "	20	The B. C. Soap Works, Victoria, B.C.
" 20	"	41632	Henderson Bros., Ltd., Victoria, B.C.	1 "	25	Merrimac Chem. Co., Boston, Mass.
" 20	"	41633	D. E. Campbell, Victoria, B.C.	1 "	50	Henderson Bros., Ltd., Victoria, B.C.

* Is not arsenate of lead.

