LABORATORY

OF THE

INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

BULLETIN No. 321

LIME JUICE

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LIME JUICE

OTTAWA, September 1, 1915.

J. U. VINCENT, Esq.,

Deputy Minister, Inland Revenue.

Sir,—I beg to hand you herewith a report upon eighty-three (83) samples purchased as Lime Juice by our inspectors in April, May and June of this year. This inspection was undertaken in consequence of complaints to the effect that this article was extensively adulterated, in the sense of being much below the legal standards for Lime Juice.

By Order in Council of 28th January last, the following standards were legalized, as under Section 26 of the Adultration Act.

Lime Juice, Lime Fruit Juice, is the freshly expressed juice of the ripe fruit of Citrus (various species; and has a specific gravity at 20° C. of not less than 1.030 and not greater than 1.040, and contains not less than eight (8) per cent of solids and not less than seven (7) per cent of free citric acid. Its optical activity (rotatory power to polarized light) lies between the limits of +0.5° and -1.0° of the Soleil-Ventzke scale, when observed in a column of 200 mm, length at 20° C.

These standards only differ from those established by Order in Council of 11th February, 1911, in the following particulars:—

- 1. Recognizes various species of Citrus instead of C. limetta only, as sources.
- 2. Fixes 8 per cent solids instead of 10 per cent as in the earlier standards.
- 3. An optical activity between the limits of +0.5° and -1.0° is recognized,

instead of +0.5° to -0.5° as in the Order in Council of 1911.

These changes have the effect of making the standards less exacting than formerly, in consequence of which any failures to meet existing standards are less excusable.

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The results of this inspection may be summarized as follows:-

Found genuine		
Found not sold as Lime Juice Found adulterated, as departing notably from the	2	"
legal standard	27	"
Total	00	66

It will be noted that 43 samples contain preservatives, benzoic, salicylic or sulphurous acids. In none of these cases is any statement declaring the presence of a preservative, made upon the label. This is in violation of Order in Council dated 4th April, 1914, (published as Circular G. 1111) which requires that, preservatives of the class which includes those above named, shall be declared on the label, when present. This Order in Council further limits the amount of preservative which may be present, and requires that not more than one kind of preservative shall be added to any one kind of food, or to any mixture of two or more kinds of food.

The limits fixed as regards Lime Juice are as follows:-

Benzoic acid: 1 part in 1,000 parts. Salicylic acid: 1 part in 5,000 parts. Sulphurous acid 1 part in 10,000 parts.

Three samples (55266, 66730 and 66738) violate these limits by containing more than one preservative each. Two samples (52160 and 61835) violate these limits by containing more than the permitted amount of the preservative present.

In most cases, the amount of preservative present is well within the prescribed limit, and in many cases, is properly described as a trace only, and therefore negligible.

On account of the long established usage of preservative in this article and the comparatively recent enactment of standards in regard to preservatives, I would recommend that samples otherwise genuine, be treated leniently so far as declaration is concerned; but with the understanding that, after this notification and warning all violations of departmental requirements will be strictly dealt with.

I beg to recommend publication of this report as Bulletin No. 321.

I have the honour to be, Sir, Your obedient servant.

> A. McGILL, Chief Analyst.

1, 1915.

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83) samples s year. This t this article tandards for

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BULLETIN No. 321-

					Co	st.	Name and Addre turer or Furni by the V	sher as given	Inspector's
Date of Collection.	Date of Collection. Nature of Samble. No. of Sample.		of Sample.		Quantity.	Cents.	Manufacturer.	Furnisher.	(Is not expression Opinio
						I	DISTRICT OF NO	OVA SCOTIA-	R. J. WAU
191	5.								
June	25	Lime Juice	54061	Wentzell s, Ltd., Halifax,	3 bots	. 75	Howard M'fg. Co.,	Mfrs	
41	25	11 222	54062	N.S. Knoche & Nicolle, Hali-	3 "	75	Halifax. Francis Drake, New Glasgow.	A. & W. Smith Co., Halifax.	
**	25		54063	fax, N.S. W. P. Meyer, Halifax,	3 "	45	E. S. Tracey M'fg.		Gold Medal I
July	1		54064	N.S. E. P. Theriault, Wey- mouth.	3 "	75	Co., Halifax. Nat. Drug and Chem. Co., St.		
**	13	"	54065	B. O. Bishop, Dartmouth.	3 "	45	Chem. Co., St. John, N.B. Howard M'fg. Co., Halifax.	Wentzell's Ltd., Halifax.	
						1	DISTRICT OF NO	OVA SCOTIA—	W. A. PET
·		l	eroes	A T B N CI	91.	1	r p + c		
June "	4	Lime Juice		A. J. Roop, New Glasgow. A. A. McDonald, New Glasgow.	1	1	L. Rose & Co, London, Eng. Nat. Drug Co., Halifax.		***************************************
_	-			1	FRICT	OF	PRINCE EDWA	RD ISLAND-	WM. A. W
-				1		-	THE TOTAL THE TOTAL	The sound of	
Apr.	30	Lime Juice	60180	J. G. Passmore, Charlottetown.	3 bots	36	Chem. Co., Hali-		***********
**	30	"	60181		3 "	60	fax.	R. E. Mutch & Co., Charlotte-	***********
May	7		60182	W. W. Walker, Char lottetown.	- 3 "	75	L. Rose & Co., London, Eng.	town.	******
					I	DIST	RICT OF NEW	BRUNSWICK-	JOHN C. F
May	10	Lime Juice	66086	Nat. Drug and Chem Co., St. John.	. 3 "	45		Nat. Drug and Chem. Co.,	*******
*1	13		66087	The Can. Drug. Co., Ltd.	3 "	25		Montreal. G. P. Mitchell &	
- 11	17	"	66088	St. John. Baird & Pe ers, St. John	3 ,"	100		Son, Halifax. Nat. Drug. and Chem. Co.,	**********
- 11	18		66089	G. E. Barbour Co., Ltd.	, 3 ,,	30	Vendors	St. John.	***********
-11	26		66090	St. John. The Baird Co., Ltd. Woodstock.	, 3 "	40		1	**********
					1	1			

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LIME JUICE.

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SCOTIA-

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ISLAND-

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UNSWICK-

at. Drug and Chem. Co., Montreal. P. Mitchell & Son, Halifax. at. Drug. and Chem. Co., St. John.

		1	Results	of An	alysis.			
Inspector's Report. (Is not an expression of Opinion).	Sp. gr. of Juice.	Total Solids.	Acidity as Citric Acid. Rotation (2 dm.)		Found.	No. of Sample.	Remarks and Opinion of the Chief Analyst.	
R. J. WAUGH, 1	NSPEC	TOR.						
		р. с.	р. с.			5, 1		
	1.0449	8.58	5.21	+ 0.5		54061	Citric acid, below standard	
	1.0278	6.74	6.02	+ 1.0	acid.	54062	Adulterated.	
Gold Medal Brand	1.0223	5.32	5.11	+ 0 5	Salicylic acid	54063	" "	
	1.0405	9.83	8.89	- 0.1		54064	Genuine, with a preservative	
	1.0305	7.43	7:00	+ 0.5	Trace salicylic acid.	54065	Solids slightly low. Pass.	
W. A. PETIPAS,	ТЕМР	ORAR	RY IN	SPEC	TOR.			
W. A. PETIPAS,	1 · 0357 1 · 0379	8·48 9·10	8.15	- 0.3	Trace salicylic acid.		Genuine.	
*********	1·0357 1·0379	8·48 9·10	8·15 8·43	- 0.3	Trace salicylic			
	1·0357 1·0379	8·48 9·10	8·15 8·43	- 0·3 - 0·4	Trace salicylic acid.	65861		
	1·0357 1·0379	8·48 9·10 ECTO	8·15 8·43 R.	- 0·3 - 0·4	Trace salicylic acid.	65861	"	
	1·0357 1·0379 INSP	8·48 9·10 ECTOI	8·15 8·43 R. 8·47	- 0·3 - 0·4	Trace salicylic acid.	65861	Genuine.	
WM. A. WEEKS,	1·0357 1·0379 INSP 1·0383 1·0382	8·48 9·10 9·14 9·12	8·15 8·43 R. 8·47 8·54	- 0·3 - 0·4 - 0·6 - 0·4 - 0·3	Trace salicylic acid.	65861 60180 60181	Genuine.	
WM. A. WEEKS,	1·0357 1·0379 INSP 1·0383 1·0382	8·48 9·10 ECTOI 9·14 9·12 8·50	8·15 8·43 R. 8·47 8·54 8·12	- 0·3 - 0·4 - 0·6 - 0·4 - 0·3	Trace salicylic acid.	60180 60181 60182	Genuine.	
WM. A. WEEKS,	1 · 0357 1 · 0379 INSP 1 · 0383 1 · 0387	8·48 9·10, ECTOI 9·14 9·12, 8·50	8·15 8·43 8·47 8·54 8·12	- 0·3 - 0·4 - 0·6 - 0·4 - 0·3	Trace salicylic acid.	60180 60181 60182	Genuine.	
WM. A. WEEKS,	1 · 0357 1 · 0379 INSP 1 · 0383 1 · 0382 1 · 0357	8·48 9·10, ECTOI 9·14 9·12, 8·50	8·15 8·43 8·47 8·54 8·12 10·18	- 0.3 - 0.4 - 0.4 - 0.3 - 0.4 + 0.3	Trace salicylic acid.	60180 60181 60182	Genuine. Genuine. Genuine. exceptional strengt	
WM. A. WEEKS,	1 · 0357 1 · 0379 INSP 1 · 0383 1 · 0382 1 · 0357 SON, 1 · 0359 1 · 0531	8·48 9·10 9·14 9·12 8·50 NNSPE 8·64	8·15 8·43 8·43 8·47 8·54 8·12 10·18 8·01	- 0.3 - 0.4 - 0.6 - 0.4 - 0.3 - 0.3 - 0.4 - 0.3	Trace salicylic acid. Trace salicylic acid.	60180 60181 60182 66086 66087 66088	Genuine. " Genuine. " exceptional strengt	

BULLETIN No. 321--

	or Furnisher,	Name and A Manufacturer of as given by the		Cost					
Inspec Report an expr of opin	Furnisher.	Manufacturer.	Cents.	Quantity.	of Same and Address		Nature of Sample.		Date of Collection.
F. X. W.	EBEC CITY-	DISTRICT OF QU	1						
									1915
		Toronto.			O. Lacroix, 19 rue St. Joseph, Quebec.		Juice		
	Cie.	L. Rose, London		3 11		56396	"	20	**
		Montserrat Co. Ltd., England.			Elz. Turcotte, 74 Desfoses, Quebec.		11.	20	"
*********		Dalton Bros., To- ronto.	75	3 "	" "	56398	11	20	11
,,,,,,	J. B. Renaud & Cie.	L. Rose Co. Ltd.,	30	3 "	" "	56399	п	20	"
N. CADIEU		ICT OF QUEBEC	STR	DI				-	
		L. Rose & Co.	60	3 bots.	F. D. Hall, Ste Agathe	282	Juice	4 Li	May
	Lymans Ltd.,	Ltd.	1.50	3 "	des Monts. Fraserville Drug Co.,	56458		22	17
	Montreal.	Sutcliffe & Bing-	45	3 "	Fraserville. Damien & Cie, Fraser-	56461	11	22	11
		ham, Ltd. L. Rose & Co., Ltd., London.	90	3 "	ville. T. Therriault, Fraserville.	56464	п ,.	1	June
Dr. V. P. L	REE RIVERS-	STRICT OF THE	DI						
		N. D. & C. Co., Montreal.	75	3 bots.	A. C. Duff, Charlemagne.	67957	Juice	21 Li	May
***********		L. Rose & Co.,	1.20	3 "	Bellefeuille Giroux, Three Rivers.	69107		28	11.
	N. D. & C. Co., Montreal.	Ltd., London. Evan Sons, Lescher	1.05	3 11	O. Carignan & Fils, Three	69108		29	11
***********	Laporte & Mar- tin, Montreal.	& Webb. L. Rose & Co., Ltd., London.	75	3 "	Rivers. J. A. Boisvert, Joliette	69114		1	June
D. J. KEAR		DISTRICT OF							
		Green & Co., To-	30	3 bots.	Viauville Cash Grocery, 89 St. Catherine street,	62596	e Juice	7 L	May
		Finsbury Distillery	1.05	3 "	Maisonneuve. P. H. Theoret, 71 Vitre	62597	u	17	11
		Co., London. L. Rose & Co., Ltd., London.	30	3 "	st. E., Montreal. The Royal George Gro- cery, 221 Bernard ave.,	62598		19	11
	Lymans Ltd		45	3 ,,	Montreal. Dr. Champagne, 1314	62599		7	June
		T. A. Lytle Co., Ltd., Toronto.	45	3 "	Wellington st., Verdun Louis Montplaiser, 582 St. Catharine st., Maison- neuve.	62600	п	9	"
J. J. COSTIC	LLEYFIELD-	DISTRICT OF VA	D		neuve.				
***************************************		Dalton Bros., To-	60	3 bots	J. E. Baillargeon, Farn- ham.	57946		9	June

LIME JUICE.

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Renaud &

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nans Ltd., ontreal.

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		1	Results	of Ar	alysis.		
Inspector's Report (is not an expression of opinion.)	Sp. gr. of Juice.	Total solids.	Acidity as citric acid.	Rotation (2 dm.)	Found.	No. of Sample,	Remarks, and Opinion of the Chief Analyst.
F. X. W. E. BELA	AN", I	NSPE	CTOR				
		p. c.	р. с.				
	1.0339	7:90	7:17	+ 0.6	Benzoic acid	56395	Genuine, with a preservative
	1.0364	8.72	8.12	- 0.2		56396	Genuine.
	1·1258 1·0419	31·08 9·78		-37·8	Benzoic acid		Sugared and watered. Sold a a cordial and not as lime juice Genuine, with a preservative
	1.0348	8 36	7.98	- 0.4			Genuine.
	1 1		mr DD	man	DOD A DAY AMARIA	omon	g
N. CADIEUX AN	D A. P	ELLE	TIER	, TEM	PORARY INSPE	CTOR	S.
	1.0356	8.40	7.91	0.0		282	Genuine.
	1.0285	6.90	6.40	+ 0.1	Salicylic acid	56458	Solids and citric acid below standard. Adulterated.
	1.0262	6.32		- 0.3		56461	" "
	1.0349	8.49	7.91	- 0.2		56464	Genuine.
DR. V. P. LAVAL	LEE, I	NSPE	CTOR				
	1.0320	6.89	7.28	0.0		67957	Solids somewhat low. Pass.
	1.0348	8.13	8.12	0.0		69107	Genuine,
	1.0356	8.48	7.84	0.0		69108	
	1.0354	8.25	8.12	0.0		69114	"
D. J. KEARNEY,	INSPI	ECTOR	₹.				
	1.0516	12.23	1.40	-13.80	Salicylie acid	62596	Sold as a lime juice cordial not as lime juice.
	1.0370	7.81	7.21	0.0		62597	Genuine.
	1.0351	7.31	8.12	0.0		62598	Solids slighty low; pass.
	1.0326	6.86	7.28	0.0	Benzoic acid	62599	
	1.0331	6.88	6.72	0.0		62600	preservative. Solids slightly low; pass
						-	
J. J. COSTIGAN,	ACTIN	IG IN	SPEC	TOR.			

Inspector's Re
(Is not an expr.
of opinion)

J. A. RICKE

Turner's Lime of Sterling Brand.
Olympia, quaguaranteed.
JAMES HOG.

Olympia Brand

H. J. DAGER Kkovah Lime J

Dalton's West Lime Juice. Sterling Brand

Royal Crest ... H. J DAGER

Kkovah Lime J

Labelled Pure
Juice.

Kkovah Pure
Juice.

Labelled Pure
Juice.

						Co	st.	Name and Address or Furnishe the V	s of Manufacture r, as given by endor.
Date of Collection.		Nature of Sample.		of and Address of		Quantity.	Cents.	Manufacturer.	Furnisher.
								DISTRICT	OF OTTAWA-
191	5.								
April	24	Lime Jui	ce	63618	Casselman Bros., Morris- burg.	1 bot	. 35	The Turner Co.,	
11	30	- "		63639	Jos. Grant, York street, Ottawa.	3 "	75	Ltd., Toronto. T. A. Lytle Co. Ltd., Toronto.	
May	4	"		63653	The F. J. Castle Co. Ltd., Wellington st., Ottawa.	1 "	19	1700., 1010110.	N. D. & C. Co. Ottawa.
							-	DISTRICT O	F KINGSTON-
April	28	Lime Jui	ce	68041	T. H. Sargent, Kingston	3 bots.	75	E. G. West & Co.,	
**	28	"		68042	A. P. Chown, Kingston.	3 "	- 90	Toronto.	
.11	28	**		68043	Geo. A. Mahood, Kingston	3 "	90	Lymans Ltd., Montreal.	
***	29			68044	A. Glover, Kingston	3 "	75	Montreal. L. Rose & Co., London.	
May	4	,11		68045	D. G. Bleeker, Belleville,	3 "	105	Davis & Lawrence Co., Montreal	
									OF TORONTO-
May	11	Lime Jui	ce	67069	R. A. Mason, Markham	3 bots		Sutcliffe & Bing- ham, Ltd., Man-	
**	13	11		67070	W. H. Parr, Beaverton	3 "	75	chester, Eng. Dalton Bros., Toronto.	
319	15	"		67071	The Playfair Preston Co.,	3 "	45	T. A. Lytle Co., Toronto.	
***	20	" "		67073	Midland. C. B. Shield, 1417 Queen street, W. Toronto.	3 "	105	Rowatt & Co.,	********
"	20	"		67076	E. C. Brown, 2489 Yonge street, Toronto.	3 "	45	Glasgow. E. G. West & Co., Toronto.	
								DISTRICT OF	HAMILTON-
April	26	Lime Jui	ce	66988	J. C. Hadden, Guelph	3 bots.	75	G. F. Sutton Sons & Co., London,	Unknown
11	26	**		66990	G. M. Jamieson, Fergus	3 11	75	Eng. Dalton Brothers, Toronto.	
11	27	"	6	66991	H. E. Yeomen, Mount	3 "	75	Rowatt & Co.,	Unknown
May	5	11		66992	Forest, Stanley Mills & Co., 11 King st., E. Hamilton.	3 "	30	Glasgow. Sutcliffe & Bingham, Ltd., Man-	
"	5	**		66993	Peebles Hobson & Co., King and McNabb sts., Hamilton.	3 "	75	chester, Eng. R. Fry & Co., Brighton.	
June	5	.01		67086	Stanley Mills & Co., 11 King st., E. Hamilton.	3 "	105	Sutcliffe & Bing- ham, Ltd., Man-	***************************************
	5			67087	Peebles Hobson & Co., 40 King st., W. Hamil-	3 "	75	R. Fry & Co.,	

LIME JUICE.

No. 321-

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OTTAWA-

D. & C. Co., ttawa.

TORONTO-

AMILTON—

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			Result	s of Aı	nalysis,			
Inspector's Report. (Is not an expression of opinion).	Sp. gr. of Juice.	Total solids.	Acidity as citric acid.	Rotation (2 dm.)	Found.	No. of Sample.	Remarks and Opinion of the Chief Analyst.	
J. A. RICKEY, IN	SPECT	ror.						
		p.e.	p.c.					
Turner's Lime Juice.	1.0282	6.30	6.23	0.0		63618	Below standard. Adulterated	
Sterling Brand	1.0282	6.33	6.09			63639		
Olympia, quality guaranteed.	1:0347	7.83	7:49	0.0		63653	Genaine.	
JAMES HOGAN, I	NSPE	CTOR.						
	1.0348	7.55	7 · 21	0.0		68041	Solids slightly low. Pass.	
Olympia Brand	1.0289	6.27	6.65	0.0		68042	Solids and citric acid low	
	1.0334	8.19	8.05	0.0	Benzoic	68043	Adulterared. Genuine, with a preservative.	
	1.0334	7.86	7.77	0.0		68044	Genuine.	
	1.0304	6 91	7:14	0.0		68045	Solids slightly low Pass.	
H. J. DAGER, INS	SPECT	OR.						
Kkovah Lime Juice	1.0270	6.28	6.23	0.0	Salicylic	67069	Below standard. Adulterated	
Dalton's West India Lime Juice.	1 0584	13.88	5.46	-9.2	Benzoic	67070	Contains added sugar. Adulterated, as below legal acid strength.	
Sterling Brand	1.0296	6.87	6.30	0.0		67071	Below standard. Adulterated	
	1.0260	6.12	5.23	0.0		67073		
Royal Crest	1 0393	9 23	8.40	0.0		67076	Genuine.	
H. J DAGER, AC	TING	INSPI	ECTOR					
	1.0282	6.20	6.44	0.0	Salicylic	66988	Below standard Adulterated	
	1.0531	12.25	7.91	- 5.4	Benzoic	66990	Contains sugar. Otherwis genuine, with preservative Pass.	
	1.0300	7.10	6.21	0.0		66991	Solids and acid low. Adult	
Kkovah Lime Juice.	1.0274	6.29	5.88	0.0	Salicylic	66992	erated.	
Labelled Pure Lime Juice.	1 0357	8.39	7.98	0.0	,	66993	Genuine.	
Kkovah Pure Lime Juice.	1.0318	7.48	7.01	0.0	Salicylic	67086	Solids somewhat low. Pass.	
Labelled Pure Lime	1.0360	8.40	7.91	0 0		67087	Genuine.	

Yacht Club .. Nabob.....

LIME JUIC

						Cos	st.	Name and Addre turer or Furnis by the V	her as given
Date of Collection.		Name of Sample.		No. of Sample.	Name and Address of Vendor.	Quantity.	Cents.	Manufacturer.	Furnisher.
						,		DISTRICT O	F WINDSOR-
1915									
Apr.	21 23 23 25	Lime Jui	ce	54789 54791	J. P. Sheppard, Clinton.Dicksons, St. Mary'sF. W. Hutton, St. Mary'sStandard Drug Co., London	3 "	75 30	Montserrat Co. Ltd., London E. Imperial 'Extract Co. Toronto. L. Rose & Co. Ltd. London, Eng. Nat. Drug Co., Canada.	
-							-	DISTRICT OF	MANITOBA-
" "	18 19 25 25	Lime Jui		61283 61284 61285 61286		3 " 3 " 3 "	1.00 45 75 75		F ALBERTA-
Apr. May	30 1 20 21	Lime Jui	ice	52158 52159	Hudson's Bay Co. Edmonton. J. H. Morris, Edmonton. Wendell Maclean, Calgary Nat. Drug & Chem. Co. Calgary.	3 "	45 1.05	Imperial Extract Co. Toronto. White Star Mfg. Co. Winnipeg. G. F. Sutton Sons & Co. London E. Vendors	
June	17	11		52161	Geo. Kerr, Lethbridge	3 "	1.05	L. Rose & Co. Ltd. London, Eng.	
						DI	STR	ICT OF ROCKY	MOUNTAINS-
Apr. May June	20	"	ice	61821 61829	E. W. Hazlewood, Trail. Sun Grocery Co. Cranbrook. A. Hobson, Revelstoke L. C. Masson, "	3 ,,	1.05 1.50	Co. Vancouver. Imperial Extract Co. Toronto. Kelly Douglrs & Co Vancouver. W. H. Malkin Co. Vancouver.	Jobbers Limited Cranbrook.

No. 321_

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Furnisher.
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		1	Results	of An	alysis.		
Inspector's Report (Is not an expression of opinion.)	Sp. gr. of Juice.	Total solids,	Acidity as Citric Acid.	Rotation in 2 dm.	Found.	No. of Sample.	Remarks and opinions of the Chief Analyst.
JOHN TALBOT, IN	SPEC	CTOR.					
Montserrat Lime	1:0352	p. c. 8·07	p. c. 7·91	0.0		54766	Genuine.
Fruit Juice. Yacht Club		5.56	5.67		Salicylic		Below standard. Adulterated
Rose Prepared West India Lime Juice. Olympia	1·0360 1·0320	8·47 7·44	8 05 7·35				Genuine. Solids somewhat low. Pass.
A. C. LARIVIÈRE,	INS	PECTO	R.				
1	1.0311	7.76	6.93	-0.4		61282	Genuine.
	1.0192	4.00	3.20	+0.4	Salicylic	61283	Below standard. Adulterated
	1.0400	8.60	6.65	-0.1		61284	Acid slightly low. Pass.
	1.0310	7:46	6.93	-0.5		61285	Solids slightly low. Pass.
	1 0321	7.65	7.14	-0.6		61286	
A. W. R. MARKLE	EY, IN	NSPEC	TOR.				
Imperial	1.0205	6.41	5.16	-0.4	Contains artificial colouring.	52157	Below standard. Adulterated
White Star	1.0305	8.56	6.72		Salicylic acid 0.30 pts per 5000.		Genuine, with preservative.
	1.0268	7.73	5.69		Salicylic acid 0.65 pts per 5000.	52159	Below standard. Adulterated
Sovereign	1.0322	8.76	7:03	-0.3	Sulphurous acid 3.12 pts per 10,000.	52160	Genuine, with preservative i excess.
Rose's	1 · 0357	9.37	7.85	-0.4	Sulphorous acid 0.05 pts per 10,000.	52161	11 11
THOS. PARKER, I	NSPE	CTOR					
	1.0200	5.93	4.65	+0.3	Salicylic acid 0 40	61804	Below standard. Adulterated
Yacht Club	1.0189	5.24	4 · 21	+0.5	pts per 5000. Salicylic acid 0.05 pts per 5000.	61821	" "
Nabob	1.0341	9.10	7.60	-0.6	Sulphurous acid 0.10 pts per	61829	Genuine, with preservative.
	1.0353	9.47	7.90	-0.2	Salicylic acid 2.00 pts per 5000.	61835	Genuine, with preservative i
	1.0312	8 65	7:00	-0.5	Sulphurous acid 0.03 pts per 10.000.	61836	

BULLETIN No. 321-

					Cost	t.	Name and of Manufacturer as given by the	or Furnisher
Date of Collection.		Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Quantity.	Cents.	Manufacturer.	Furnisher.
		- 4					DISTRICT OF V	ANCOUVER-
1913	5.							
May	22	Lime Juice	55266	Cochrane & Elliott, 657 15th Ave., E. Vancouver		75	Leesor, Dickie, Gross & Co., Ltd., Vancouver.	
11	22	"	55267	G. W. Bennett, 761 Kings- way, E. Vancouver.	3 11	75	Kelly, Douglas & Co., Ltd., Van-	
**	25	"	55268	B. C. Market Co., 924 Grenville St., E. Van-	3 "	75	Pure Fruit Packing Co., Van-	
11	26		55269	Knight Bros., 11th Ave. and Commercial Drive, E. Vancouver.	3 "	120	w. H. Malkin Co., Ltd., Vancon- ver.	
d	27	"	55270	Annandale Supply Co., Columbia St., New Westminster.	3 11	75	Imperial Extract Co., Toronto.	
							DISTRICT OF	F VICTORIA-
June	9	Lime Juice	66727	H. O. Kirkham & Co., 741 Fort St., Victoria.	3 pts.	75	L. Ross & Co., Ltd., London, Eng.	
"	9	"	66730	Henry W. Driver, 856 Yates St., Victoria.	3 qts.	75		The Pure Fruit Packing Co. Vancouver.
"	11	"	66738	Geo. A. Fraser & Co., 914 Government St., Vic toria.	3 bot.	75		N. D. & C. Co. Victoria.
,11	11		66740	F. J. Williams, 613 Fort St., Victoria.	3 pts.	75	Alex. Riddle & Co., Ltd., London, Eng.	
11	15		66749	Ivel's Pharmacy, 1415 Government St., Vic- toria.		75	W. A. Ross & Bro., Belfast, Ireland.	

LIME JUICI

Inspector's Report (Is not an express of opinion).

E. J. MORGAN

Labelled Finest V India Lime Ju

Columbia Brand

Labelled Pure I

Lime Juice.

Victoria Cross B

Yacht Club....

D. O'SULLIVA

Rose's Prepa West India Juice. Pure Fruit Juice.

ddress r Furnisher Vendor.

Furnisher.

NCOUVER-

VICTORIA-

ne Pure Fruit Packing Co., Vancouver.

D. & C. Co. Victoria.

LIME JUICE.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.						
	Sp. gr. of Juice.	Total Solids.	Acidity as Citric Acid.	Rotation (2 dm.)	Found.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
E. J. MORGAN, IN	SPECT	FOR.					
		р. с.	р. с.			-	
Labelled Finest West India Lime Juice.	1.0189	5.60	4.29	- 0.5	Salicylic acid 0°55 pts. per 5,000. Sulphurous acid 0°02 pts. per 10,000.	55266	Below standard. Adulterated. Contains two preservatives.
Columbia Brand	1 6159	5.16	3.60	- 0.1		55267	Below standard. Adulterated.
Labelled Pure Fruit Lime Juice.	1.0112	3.66	2.54	+ 0.5	Salicylic acid 0.70 pts. per 5,000.	55268	" "
Victoria Cross Brand	1.0346	9.27	7:69	0.(Sulphurous acid 0 22 pts. per 10.000.	55269	Genuine, with preservative.
Yacht Club	1.0081	3 36	2.10	+ 0 3		55270	Below standard. Adulterated
D. O'SULLIVAN, I	NSPE	CTOR.					
Rose's Prepared West India Lime	1.0357	9.91	7:70	- 0.8	Sulphurous acid 9.10 pts, per 10,000.	66727	Genuine, with preservative.
Juice, Pure Fruit Lime Juice,	1.0165	5.05	3.70	- 0.1		66730	Below standard. Adulterated Contains two preservatives
	1:0196	5.28	4.55	- 0.5		66738	Below standard. Adulterated
	1.0329	8:38	7.12	0.0	Sulphurous acid 0.94 pts. per 10,000.	66740	Genuine, with precervative.
	1.0337	8 82	7:54	- 0.8	Salicylic acid 0 35 pts. per 5,000.	66749	