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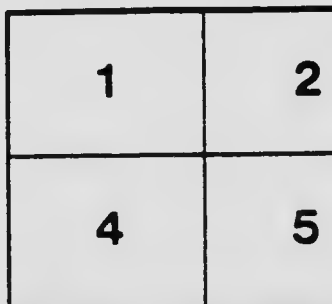
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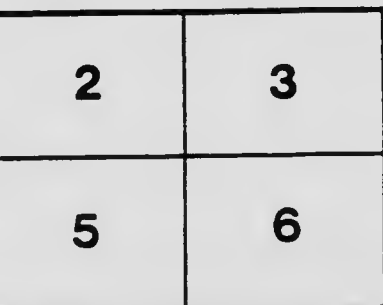
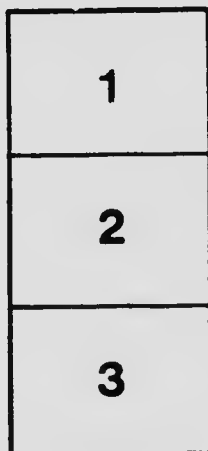
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LABORATORY  
OF THE  
INLAND REVENUE DEPARTMENT

BULLETIN No. 94.

CIDER.

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

OTTAWA, February 6, 1904.

SIR,—In accordance with your instructions of August 4, 1903, a collection was made in November and December last of 41 samples of commercial cider, the whole of which were examined in this laboratory by Mr. J. G. A. Valin, the results of whose work are given in the accompanying tabulated statement.

The specific gravity of these samples, taken at 15.5° C, varies from 1.0025 with 9.54 per cent of alcohol by volume to 1.0688 with only 1.13 per cent. Seventeen out of the forty-one samples contain less than 1 per cent of alcohol by volume, and may be regarded as non-alcoholic. The specific gravities of these vary from 1.0368 to 1.0627, the latter figure being probably higher than the density of pure apple juice. In 1896, I had occasion to determine the gravity of five samples of what was said to be fresh apple juice, made at Lambeth near London, Ont., for the production of cider vinegar. They ranged from 1.0464 to 1.0485 at 18° C. Two samples of apple juice 'fresh from the press,' intended for the manufacture of cider, were supplied to this laboratory in October, 1903, and after filtration found to have specific gravities respectively of 1.0546 and 1.0573 at 15.5° C. Having in view these variations it would seem necessary to obtain, at the place of production, undoubtedly genuine samples of 'fresh and pure apple juice before drawing any conclusions regarding the samples described in the tables as to their containing added water or sugar.

It will be observed that fourteen of these ciders have been found to contain small quantities of salicylic acid, the addition of which to alcoholic fermented or other portable liquors renders them, according to the Adulteration Act, liable to be considered as adulterated in a manner injurious to the health.

I have the honour to be, sir,  
Your obedient servant,

THOMAS MACFARLANE,  
*Chief Analyst.*

## RESULTS of Examining 41

Date of Collection.	Nature of Sample	Number of Sample.	Name and Address of Vendor.	COST.		Name and Address of Manufacturer or Furnisher.
				Quantity.	\$ cts.	
Nov. 26	New Cider.	20409	H. W. Shenton, Springhill, N.S.	3 pints....	0 15	Allen, Norwich, Ont.....
" 26	"	20410	McLeod Bros., Amherst, N.S.	" ...	0 10	Unknown, purchased through R. Eaton, Kentville.
" 27	"	20415	S. M. Bentley, Truro, N.S.	" ....	0 12	L. Burgess, Sheffield Mills
" 30	"	20416	J. E. Walker, Dartmouth, N.S.	" ....	0 15	Unknown, purchased through Mumford Bros., Halifax.
" 30	"	20419	Rooney & Lovett, Halifax, N.S.	" ....	0 15	F. Lunn, Falmouth, N.S....
Dec. 4	"	4385	Jas. Ching, Summerside, P. E. I.	" ....	0 35	F. born & Co., St. John, N.B.
" 5	"	4388	Jas. Duffey, Charlottetown..	" ....	0 20	en, Norwich, Ont.....
" 5	"	4389	F. White, Charlottetown ...	" ....	0 2	" " .....
Nov. 25	"	17988	J. H. Walker, 149 King St. East, St. John.	" ....	0 1	" " .....
" 25	"	17989	Harry G. McBeath, 239 Charlotte St., St. John, N.B.	" ....	0 15	E. Purly, Deep Brook, Annapolis, N.S.
Dec. 11	"	17999	Beaton & Co., City Market, Moncton.	" ....	0 15	A. L. Goodwin, St. John, N.B.
" 12	"	18000	J. D. Leblanc, Main St., Moncton.	" ...	0 20	" " .....
Nov. 30	Apple Cider	1525	A. Papineau, St. Césaire, Que.	2 bottles..	0 25	Vendor .....
Dec. 4	"	24527	Pagnuelo Frères, St. Hyacinthe.	" .....	0 20	F. X. St. Charles, Mon. ...
" 7	"	24528	E. Ducharme, Mt. St. Hilaire	" .....	free	Himself .....
" 10	"	24529	Joseph Vachon, Valleyfield..	" .....	0 25	J. P. Delisle, Valleyfield....
Nov. 27	"	21478	J. Bambrick, 50 George St., Ottawa.	3 pints....	0 20	Allen, Norwich.....
" 27	"	21479	Wall & Co., Market Square, Ottawa.	1 quart...	0 15	About 3 weeks in stock.....
Dec. 12	"	24531	J. P. Delisle, Valleyfield....	2 bottles..	0 20	T. Kinsella, Montreal .....
" 16	"	23488	O. Gratton, 2094 St. Catherine St., Montreal.	1 quart...	0 10	Not known.....
" 16	"	23489	L. P. Forrest, 1976 St. Catherine St., Montreal.	" .....	0 10	.....
" 16	"	23490	Gravel Frères, St. Catherine St.	" .....	0 15	S. Allen, Norwich, Ont.....
" 16	"	23491	P. Elliott, City Councillor St., Montreal.	" .....	0 12	.....
" 3	"	23281	Kelly Bros., Queen St. E., Toronto.	" .....	0 10	Stratford Bros., Brantford...
" 3	"	23282	W. Nettleton, 125 Church St., Toronto.	" .....	0 10	S. Allen, Norwich, Ont. ...
" 3	"	23283	Medland Bros., King St. E., Toronto.	" .....	0 15	Not given .....
" 4	"	23284	Andrew G. Bain, King St. E., Hamilton.	" .....	0 12	" .....
" 4	"	23285	Hazel & Son, King St. W., Hamilton.	" .....	0 14	" .....
" 1	Sweet Cider	22174	Robt. Gardiner, 760 William St., London.	" ...	0 10	M. Rontledge, London, . .
" 3	"	22182	Sol. Allen, Norwich.....	" ....	0 10	S. Allen, Norwich.....
" 4	"	22183	J. Ford & Co., Brantford....	" ....	0 05	Stratford Bros., Brantford...
Nov. 23	"	23919	E. T. Drewery, Winnipeg....	3 quarts..	0 40	" .....
" 23	"	23920	The Blackwoods Co., Ltd., Winnipeg.	3 pints...	0 25	S. Allen, Norwich, Ont.....
" 24	"	23921	McNab & Roberts, Winnipeg	3 quarts..	0 25	" .....
" 24	"	23922	Hudson Bay Co., Winnipeg..	" .....	0 45	" .....
Dec. 17	"	21770	Hallier Aldridge, Edmonton, Alta.	3 pints....	0 20	S. Allen, Norwich, Ont.....
" 17	"	21774	S. Laurendeau, Calgary, Alta	" ....	0 25	" .....
" 1	"	24912	W. J. Savory, Victoria.....	" .....	0 40	Self .....
" 1	"	24913	M. Falotto, Nanaimo.....	" .....	0 40	Rinnings, Nanaimo .....
" 1	"	24917	H. A. Edgelt, Vancouver....	1 pint ....	0 25	W. Bowman, Sumas, B.C....
			Kavanagh Bros., Ottawa .....			S. Allen, Norwich, Ont.....

Samples of Cider.

RESULTS OF ANALYSIS.

Sp. Gr. of Sample.	Sp. Gr. of Distillate.	Alcohol by Volume.	Sp. Gr. of Residue.	Total Solids by Balling's Table.	Sugars by Fehling.			Acidity stated as Malic Acid.	Presence of Salicylic Acid.
					Reducing Sugar stated as invert.	Reducing Sugar after inversion.	Cane Sugar.		
		P. C.	P. C.		P. C.	P. C.	P. C.		
1.0265	0.9930	5.00	1.0352	8.244	6.39	6.39	None.	0.72	None.
1.0324	0.9969	2.20	1.0360	8.081	4.72	4.72	None.	0.87	"
1.0228	0.9048	3.69	1.0272	6.780	3.18	4.06	0.86	0.87	"
1.0106	0.9026	5.32	1.0203	5.075	0.99	2.33	1.27	0.87	"
1.0042	0.9910	5.86	1.0106	2.700	0.68	0.88	0.19	0.58	"
1.0301	0.9979	1.42	1.0322	8.000	4.35	6.70	2.23	0.56	Present.
1.0407	0.9955	3.21	1.0446	11.000	8.65	9.72	1.02	0.53	None.
1.0366	0.9947	3.76	1.0410	10.142	8.16	8.16	.....	0.63	"
1.0548	0.9996	0.26	1.0552	13.523	8.00	10.33	2.13	0.58	Present.
1.0451	0.9992	0.53	1.0453	11.166	.....	.....	.....	0.57	None.
1.0546	0.9907	0.20	1.0546	13.381	7.68	9.79	2.00	0.60	Present.
1.0564	0.9998	0.13	1.0566	13.857	7.87	12.78	4.60	0.60	"
1.0331	0.9953	3.25	1.0398	8.706	6.22	7.46	1.18	0.62	None fermented.
1.0110	0.9893	7.92	1.0225	5.625	2.35	2.72	0.35	0.88	None.
1.0040	0.9916	6.10	1.0124	3.100	0.92	0.99	0.07	0.70	"
1.0020	0.9883	8.80	1.0.39	3.475	1.55	1.55	.....	0.46	"
1.0027	0.9924	5.47	1.0097	2.425	0.57	0.59	.....	0.58	"
1.0524	0.9989	0.73	1.0544	13.333	5.37	6.09	0.68	0.57	"
1.0038	0.9875	9.45	1.0115	3.025	0.78	0.85	0.06	0.58	None.
1.0562	0.9904	0.40	1.0569	13.928	8.80	8.80	.....	0.53	Present.
1.0408	0.9973	1.88	1.0426	10.523	8.05	8.14	0.08	0.90	None.
1.0115	0.9925	5.63	1.0195	4.875	1.68	1.88	0.18	0.58	Traces fermented.
1.0100	.....	0.53	1.0582	14.238	9.09	11.32	2.19	0.56	Present.
1.0100	.....	1.13	1.0705	17.113	10.94	14.94	3.80	0.72	"
1.0538	0.9997	0.20	1.0588	14.381	9.46	13.35	2.75	0.58	"
1.0627	0.9997	0.20	1.0637	15.534	6.22	7.93	1.62	0.58	"
1.0558	1.000	.....	1.0558	13.666	6.14	11.54	5.13	0.58	"
1.0276	0.9954	3.28	1.0319	7.925	5.96	6.54	0.55	1.28	None.
1.0530	0.9997	0.20	1.0530	13.000	9.16	10.29	1.45	0.75	Present.
1.0531	0.9999	0.07	1.0531	13.023	6.02	9.02	2.84	0.46	None.
1.0398	0.9949	3.62	1.0443	10.928	7.71	7.71	.....	0.87	"
1.0025	0.9874	9.54	1.0155	3.875	1.77	1.77	.....	0.57	"
1.0562	0.9995	0.33	1.0563	13.547	3.43	6.20	2.63	0.57	Present.
1.0570	1.000	None.	1.0572	14.000	8.53	11.82	3.12	0.58	"
1.0562	0.9997	0.20	1.0565	13.833	8.31	11.73	3.24	0.58	"
1.0333	0.9951	3.49	1.0383	9.488	7.27	7.78	0.48	0.58	None.
1.0555	0.9996	0.26	1.0560	13.714	9.04	10.50	1.39	0.70	Present.
1.0362	0.9922	5.63	1.0427	10.547	5.62	8.39	2.63	0.74	None.
1.0368	0.9989	0.73	1.0384	9.512	4.86	8.79	3.72	0.37	"
1.0045	0.9913	6.32	1.0131	3.275	0.63	0.63	.....	0.97	"
1.0476	0.9981	1.26	1.0495	12.166	7.05	10.11	2.90	0.76	"





