

in a week may produce a salutary effect on the Hilsa-fisheries, as this will check over-fishing and give the spawners intervals to spawn unmolested by man and to add to the stock of the existing population of the Hilsa.

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July 14, 1942.

¹ I have called the weir nearest to the estuary 'the first weir'.

² Vide page 355, "Dams and Fisheries: Mettur and Its Lessons for India" by Dr. B. Sundara Raj where the American Shad, a fish related to the Hilsa, is reported to have taken kindly to two Fish-passes with considerable width.

A NOTE ON THE USE OF POTASSIUM CHROMATE AS THE DELEADING AGENT IN THE DETERMINATION OF CLERGET'S SUCROSE IN SUGAR PRODUCTS

THE determination of sucrose by the double polarisation method involves leading a sugar solution and deleading the same with

indicator. The absence of any such control in the case of the other deleading agents is well known.

By comparing the sugar added with the sugar recovered from waste molasses and distillery vinasses as recommended by E. Saillard, we found (1) that the sugar recovered from these two sources closely agreed with the sugar added only when the chromate acid and the chromate yeast methods were employed while with all other methods there was much divergence, (2) that the complications introduced by leading a sugar solution, namely, precipitation of glucose and fructose can be exactly balanced by deleading with potassium chromate, (3) that the effect of amides and amino-acids was eliminated and (4) that the values obtained very closely agreed with the yeast inversion methods.

The above are the typical results.

This shows that the chromate acid inversion method is a correct method, that the results agree with the yeast inversion method and this new method is a distinct advance over

Methods of Analysis	Molasses			Distillery vinasses					
				Vinasses only			Further complicated by Amides and Aminoacids		
	Sugar Added	Sugar Recovered	Deviation	Sugar Added	Sugar Recovered	Deviation	Sugar Added	Sugar Recovered	Deviation
1. Jackson and Gills method	15.24	17.03	1.79	15.26	16.78	1.52	15.26	17.71	2.45
2. Chromate acid	15.24	15.11	-0.11	15.26	15.35	0.09	15.26	15.32	0.06
3. do. Yeast	15.24	15.11	-0.11	15.26	15.36	0.10	15.26	15.32	0.06
4. Carbonate acid	15.24	12.56	-2.68	15.26	14.06	-1.20	15.26	16.74	1.48
5. do. Yeast	15.24	13.58	-1.66	15.26	15.35	0.09	15.26	15.48	0.22
6. Oxalate acid	15.24	12.56	-2.68	15.26	13.59	-1.67	15.26	14.21	-1.05
7. Phosphate acid	15.24	17.04	1.80	15.26	18.07	3.81	15.26	16.92	1.66

(a) sodium phosphate, (b) anhydrous potassium oxalate and (c) anhydrous sodium carbonate. We have re-investigated this method for sucrose by employing potassium chromate as a deleading agent, considering the possibility of an exact control of the added chromate with the help of silver nitrate as an external

existing methods. Full details will be reported elsewhere.

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August 3, 1942.