

## II. PREVIOUS EXPERIENCE WITH MOLASSES AS A MANURE.

### I. INTRODUCTION.

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The problem of the disposal of surplus final molasses exists in most sugar producing countries where the demands for the by-product for stock food, alcohol production and fuel are inadequate to absorb the supply. In Trinidad despite a relatively large population of working oxen and other cattle, large quantities of molasses are run to waste each year. Analyses show the potential value of molasses as a manure but as yet little is known of its possibilities in this direction. Could its manurial value be established the returns of the sugar factories might be increased and the agriculture of the country rendered less dependent on imported fertilisers. It is the purpose of this investigation to consider the difficulties confronting a prospective user of molasses and to see what crop response may be expected when the by-product is employed as a general manure.

There had been five replications and the plots were one fiftieth of an acre in area; the results may therefore be taken as at least indicative of the crop increment which may be obtained by manuring with molasses.

Kerr, however, points out that most of the Queensland experiments were conducted on soil known to give good responses to potash fertilisers. It is also worthy of note that the molasses used by Kerr was particularly rich in inorganic fertilising elements. It would thus appear that most of the Queensland work was conducted under very favourable conditions.

Further evidence of success with the manure comes from Mauritius. Tempary (9) states that sugar cane is dressed with molasses as a general farm practice in that island. He estimates that in a period of five ratoons an increased production of twenty tons per acre of sugar cane can be expected from a single application of five tons of molasses. He also quotes from forty-eight experiments conducted on eight estates where a mean increase of 2.9 tons per acre was obtained from an application of molasses equivalent to 60 lbs.  $N_2$ , 60 lbs.  $K_2O$ , and 40 lbs.  $P_2O_5$ . Similar experiments with farmyard manure applied at a rate equivalent