I. INTRODUCTION.

Any improvements in the sugar cane industry will largely depend on the success of the attempts to establish a variety which will prove itself superior, both in the field and factory, to that which is already being grown. It is for this reason that P.O.J. 2878 has been attracting more attention throughout the cane growing world than any other variety.

Owing to the peculiar system of land tenure in Java whereby only plant canes can be grown, P.O.J. 2878 has proved itself particularly suitable, and is now the chief commercial variety. In Hawaii and elsewhere it is gradually supplanting all other varieties, and on some of the better soils in Hawaii phenomenal yields have been obtained. Under Trinidad conditions, however, it has proved very disappointing, and the experience of those who have grown it shows that its main disadvantages are briefly:

(a). Uneven maturity.
(b). Easily lodged.
(c). Poor ratooner.

When P.O.J. 2878 is planted in the wet season - as is universal in Trinidad - it has been observed that the cane arrows early with the result that at the time of harvest there is a large proportion of old, dried up canes with well developed root primordia, which have to be left in the field. It has also been noticed that soon after arrowing new shoots are formed.

It is apparent from these observations that better results would be obtained by shortening the growing period. By planting in the dry season it is thought that:

(i) The roots in search of moisture would burrow deeper into the soil and would consequently afford better anchorage.

(ii) The plants would remain small and would produce very few tillers to start with, but when the wet season set in, a large proportion of tillers would be produced simultaneously, which would ensure even maturity.
(iii) The stronger and deeper the root system, the better will be the ratoon.

It is with these points in view that this experiment has been initiated; the main aim of which is to compare three times of planting, namely:

1. October or wet season planting, as practised in Trinidad.
2. Late December or end of wet season planting.
3. Early March or dry season planting.

By way of comparison B.H. 10/12, the variety most commonly grown on this island has been included in the experiment.