

SUMMARY AND CONCLUSIONS.

1. Two spacing and fertiliser trials with the lettuce variety "Mignonette" were undertaken in Trinidad in the year 1958-1959. Four spacings, (7" x 7", 8" x 8", 10" x 10" and 12" x 12") were used and three levels of sulphate of ammonia were applied at the rate of 0 cwt, 2 cwts. and 4 cwts. per acre respectively. One experiment was carried out in the dry season (October, -December, 1958), and the other one in the wet season (January - April, 1959).

2. Both experiments were successfully completed and the yields were high as compared with those produced by peasant farmers in Trinidad.

3. In both the first and second crops highly significant differences were found in the yields per unit area. With the closer spacings, the acre yields were highly increased and the lowest yield per unit area was obtained from the spacing with the lowest plant population.

Nitrogen showed no significant responses in the two experiments.

4. The head size was slightly affected by both the spacings and Nitrogen in the first crop. The yield per plant decreased with the increase in plant population per unit area. The application of 4 cwts of sulphate of ammonia produced the heaviest heads. No differences were found between all treatments in the second crop as far as head size was concerned.

5. The lettuce heads from the various spacings were graded and it was found that about 90% of heads from the first crop were above the 'C' grade (over 3 ozs per plant) whilst 100% of the second crop lettuce was above that level. Even with the closest spacing, first quality lettuce was also produced.

6. The dry season appeared more favourable for lettuce growing and the yields were higher. However, the results obtained from the wet season crop were also very satisfactory. It is therefore concluded that lettuce not only could be successfully cultivated in the dry season here in Trinidad but also in the wet season if proper management was given.

Lettuce is the most important salad plant and Shoemaker (4) calls it 'the king of salad plants'. It is probably one of the most popular vegetables and is in demand at all seasons. Lettuce owes its food value mainly to its vitamin and mineral contents and it is a good source of vitamin A, B1, C, Calcium and iron.

The average annual value of this crop in the U.S.A. between 1943-1957 reached to U.S. \$132,815,500 and the annual value in 1958 was up to U.S. \$130,804,000 (15). In a small Colony such as Hong Kong, the crop production was more than 3,000 tons with a total value of over U.S. \$100,000 per annum (16). No estimate of production in Trinidad is available.

Temperature, moisture and soil are the three main factors which limit the successful production of lettuce under field conditions. Among these, temperature is the most important factor since it is beyond control in the field. Lettuce requires a relatively low average temperature with preferably uniform cool nights. Too high a temperature results in elongation of the central stalk, a bitter taste in the leaves, the production of loose heads and the