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TROUGH - WITHERING OF TEA*(This Advisory Circular replaces Circular No. T1, Serial No. 6/71)***1. Introduction**

Trough withering of tea leaf is recommended for all tea growing districts in Sri Lanka. At the initial stages, tats were used for withering, but they are obsolete now.

This Circular addresses factories, which have trough installations. Those considering trough installations in new factories must request for advice specific to individual cases. They are therefore, excluded from the scope of this Circular.

2. Factors to be considered before troughs are installed in a loft**2.1. Dimensions of troughs:**

The standard width of troughs is 6 ft. (1.8 m) but the length can be varied to suit the loft. Alternatively, the length could match the capacity of one roller (charge) or a small multiple thereof. The objective is to make the maximum use of the available floor space.

2.2 Trough capacity:

Trough capacity is computed on the basis of 2.5 kg/sq.ft. (approx. 27 kg green leaf per sq.m). For example, a trough 6' (1.8 m) wide and 50' (15.24 m) in length would have 300 sq.ft. (27.4 sq.m). of withering area and the following capacities:

Normal capacity $300 \times 2.5 = 750 \text{ kg}$

The maximum could be at the rate of 3 kg/sq.ft. (32.3 kg/sq.m)

The maximum capacity $300 \times 3.0 = 900 \text{ kg}$

2.3 Air requirements:

Fans should be capable of delivering 0.56 cu.m. of air per minute per kg (20 cfm/kg) of fresh leaf at a pressure of approximately 0.5 inches (13 mm) water gauge (WG). A fan coupled to a trough carrying 750 kg of green leaf should therefore, be capable of delivering a minimum throughput of 420 cu.m per minute (approx. 1500 cfm) at a pressure of 13 mm WG.

2.4 Other considerations:

- There should be a clearance of at least half a fan diameter between the cold air intake of each fan and any obstacle, of sizeable proportion.
- In the case of fans of two troughs facing each other, partitioning fan and chamber should be avoided to minimize fan starvation.
- Allow a working space at least 0.60 m between troughs.