

cultivar with rapid growth and long, thin-leaf green leaves; (2) LP-1 (V2) is a vigorous cultivar, known to have uniform, deep-green foliage and excellent adaptability to a wide range of environmental conditions; and (3) Nice Green Swamp cabbage (V3).



Figure 1 Three swamp cabbage cultivars used in this experiment

These cultivars are largely known to be very productive and capable of adapting to soilless cultivation, making them applicable in the year-round production. The aim of the current research was to evaluate the possibility of these cultivars in terms of maximizing yield and quality in controlled environmental conditions. The local market in Dinajpur procured the seeds of the three varieties in the local market.

2.3 NFT hydroponic system and experimental layout

The experimental set up was achieved through the use of the nutrient film technique (NFT) hydroponic system in a net house (Figure 2). It included cultivation channels, nutrient reservoir, and a circulation unit provided with submersible pumps that were turned on at the same time. The channels were constantly fed with nutrient solution to ensure that sufficient amounts of nutrients and aeration to the plant roots were provided and thus maintained a productive photo-synthetic activity. The trial design was based on a triple replication, perfectly randomized design (CRD). Each replication was to be carried out by growing all three cultivars under the same environmental conditions and management procedure.

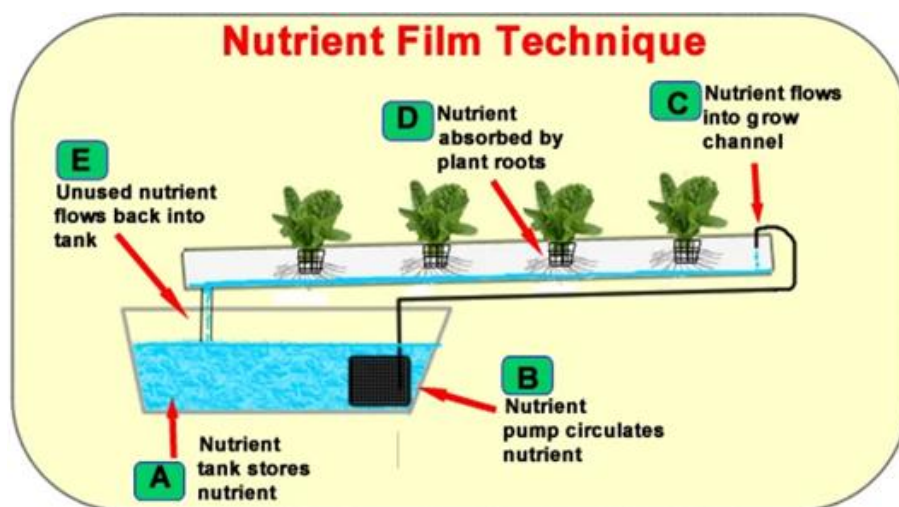


Figure 2 Diagram of hydroponic cultivation system