The intensive arable cropping on the other hand in the Hangurankete catchementa is causing severe erosion which is very much more than the tolerance limit. The experimental data though limited clearly indicates trend of soil movement, from agricultural land. The runoff from this catchement drains into the Victoria Reservoir. Though movement in the streams within the catchment has not been monitored during this period it is currently under progress. However, the study indicates that, either alternate land use such as perennial mixed cropping followed in the Nanuoya catchment should be adopted or intensive soil conservation measures have to be practiced to minimize soil erosion from agricultural land and also minimise sedimentation of the Victoria reservoir.

EVALUATION OF YIELD DIFFERENCE FROM CONTINUOUS USE OF VINE CUTTINGS FOR PROPAGATION OF SWEET POTATO (Ipomoea batata)

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Sweet potato is grown in the tropics. It's tubers, are an important sources of food. They are usually eaten boiled or baked; also used for canning, dehydrating, flour manufacture and as a source of starch, glucose syrup and alcohol. The vines are widely used as a fodder for livestock.

The vegetative parts are usually used as planting materials. However, farmers have a common belief that continuous use of the vegetative propagation leads to a reduction in tuber yields. Thus once in two to three seasons they tend to plant their field with tubers as the source of planting materials, thus increase their nursery costs. Nevertheless it has not yet been established whether the physiological maturity of cuttings has a yield reduction effects. Therefore an experiment was conducted to veryfy the common belief of the farmers.

Three local cultivars : - Wariyapola, Bentota-A and Divulapitiya were used in this experiment. Cuttings were planted on ridges (18 cm high) at

a spacing of 60 x 24 cm. One cutting per hill, vertically placed. The crop was fertilized with Urea, Consuper phosphate and Muriate of Potash at a rate of 120, 120 and 180 kg/ha (Departmental recommendation) respectively.

Yield fluctuations observed in yala '84 taking a variety of generations are shown in figure 1. Tuber yield data presented in figure 1 with respect to Wariyapola, Bentota-A, Divulapitiya. The results showed that the yield fluctuations observed do not show any significant loss of yield with advancement of the generationa.

Similar trends were also observed in Maha 1984/85 and the yield data relavant to that season is given in figure 2. Subsequent observations during yala 1985 also were similar to those observation made during Maha 1984/85 are given in figure 3 and figure 4.

Thus the general analysis of tuber yield data from 4 seasons field experimentation with 3 cultivars do not conform with the general belief that sweet potato tuber yields are declined when cuttings (vegetative) are used continuously used as planting materials.

The crop was harvested at 3½ months maturity. The generations tested did not show any significant difference on yield, up to the 7th generation and no interaction between variety and the generation.

Experimental findings show the general farmer belief "that the continuous use of vine cuttings in propagations of sweet potato induces a reduction in tuber yields to be " incorrect.