

Vanilla fragrans [(Salisb) Ames] (Vanilla) is cultivated for its pleasant flavour. At present the growing interest in cultivation of vanilla in the mid country wet and intermediate zones of Sri Lanka decomposable mulch is the main source of nutrients to vanilla and it also retains enough moisture for the plants. In this study, vanilla cuttings were field planted at 2.5 x 2.0 m spacing and trained on *Gliricidia* sp. They were evaluated for early growth, growth at flowering stage and yield characteristics under 3 different mulching materials (fresh *Gliricidia* loppings, paddy straw, coconut husk at the rate of 20 kg/plant/year) and applications of inorganic fertilizer (60g N, 25g P₂O₅ and 80g K₂O/plant/year) and Maxicrop 0.1% (10 ml/plant/year).

During the early growth period, *Gliricidia* mulch and Maxicrop gave significantly superior performance than the other treatments. Length of the vines at the end of 12 months were 123.67 cm. and 106.75 cm. for *Gliricidia* and Maxicrop treatments respectively, while the same for control was 71.95 cm. The number of leaves per plant recorded with *Gliricidia* mulch was 20.20 followed by Maxicrop (19.57). At the flowering stage, the highest number of leaves per plant was observed with Maxicrop (60.82) followed by *Gliricidia* mulch (50.26). In the case of control and inorganic fertilizer treatments, leaf number were nearly half of the mulched plants. With mulching, stem diameter was increased but with fertilizer it was decreased.

The highest percentage of plants that came to flowering (29%) was associated with coconut husk mulch followed by Maxicrop (24%) and *Gliricidia* (20%) treatments. Number of inflorescence per plant also showed a similar trend giving the highest value of 4.5 with *Gliricidia* mulch. The highest number of pods/plant was also associated with *Gliricidia* mulch treatment followed by Maxicrop (16.0).