

THE EFFECT OF CROP RESIDUES MULCHES ON YIELD OF BEERALU RADISH (*Raphanus sativus* L).

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In Sri Lanka, radish can be grown in all agro ecological regions and at present the problem of soil erosion exists; so mulch can enhance the productivity of soil. Among different types, crop residues mulches can act as a shade to suppress weeds; vapour barrier against moisture losses, reduce surface run-off, mitigate soil temperature and increase water retention that contribute to improve the organic matter content and releasing minerals into the soil. This experiment aimed to evaluate the influence of mulches on quality and yield performance of Beeralu radish (*Raphanus sativus* L). The field experiment was conducted at the AQUINAS college farm at Ragama (WL3). A Latin square design with three types of mulches and a control were used in the experiment. The study was carried out for a period of twelve weeks starting from 1st of March 2019. The four treatments that were used in the experiment were no mulch (control-T1), paddy husk (T2), paddy straw (T3) and coir dust (T4). Radish seeds were sown directly in the beds in 2 to 3 cm deep holes while leaving space 25cm between rows and 10cm between plants. The mulches were applied 3 days after sowing (DAS) and plants were harvested 58 DAS. The response variables of the experiment included number of plants survived, percentage of commercial roots (%) and waste root (%) at harvesting. The highest number of plants survived (158 ± 12 plants) was recorded in paddy husk (T2) and the lowest number (54 ± 5 plants) was recorded in control (T1). The highest percentage of commercial root ($82.81 \pm 11\%$) was recorded in coir dust (T4) and the lowest percentage in ($26.89 \pm 4\%$) paddy straw (T3). The highest waste root percentage of ($73.11 \pm 8\%$) was recorded in paddy straw (T3) and lowest waste root percentage was in ($32.81 \pm 5\%$) coir dust (T4). Finally it can be concluded that crop residues mulches increased the yield. However, coir dust and paddy husk mulches are the best in terms of quality

Keywords: Commercial roots (%), Dead mulches, Radish, Waste root (%)