

**EFFECT OF MULCHING ON CABBAGE**  
*(Brassica oleracea var green coronet)*  
**CULTIVATION IN WELIMADA AREA**

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**2015**

## ABSTRACT

Mulches compromise massive benefit in vegetable production, nevertheless their use has not been studied under home-grown conditions. The Present study was undertaken to explore the use of mulches on cabbage cultivation (*Brassica oleracea*. var *green coronet*). 25 – 27 days old cabbage seedlings were used as planting materials and mulching applications such as (i) no mulch (control) (T<sub>1</sub>), (ii) white polytene (T<sub>2</sub>), (iii) silver polytene (T<sub>3</sub>), and (iv) weed slash (organic) (T<sub>4</sub>) were imposed in a complete randomized block design (RCBD). Measurements were conducted on leaf area (length and width), head girth, fresh and dry mass, length of roots, and number of roots, number of leaves and weed infestation. As the results showed there was a significant ( $p>0.05$ ) difference in plant leaf area at two weeks after transplanting between the treatments but there was no significant difference ( $p>0.05$ ) between the treatments with respect to the number of leaves. As regard to the head girth, all amended treatments increased the mean value, over the control, however; the increase was significant ( $p<0.05$ ) only at polytene mulches. There was a similar effect on both fresh and dry masses of cabbage by the four treatments. Accordingly, both the lowest fresh and dry masses were recorded in the control whereas the highest was given by the white polytene treatment. The treatments also significantly ( $p<0.05$ ) affected on the number and length of roots in cabbage. Six weeks after transplanting, the mean weed score for no mulch, white mulch, silver mulch, and organic mulch was 4.0, 2.0, 2.0, and 3.0. White and silver mulches were the most the effective mulching materials for cabbage production given the parameters such as a leaf area, head girth, fresh mass, dry mass, length of roots, number of roots, number of leaves and weed infestation. When, growing green coronet cabbage in up country, mulching with either white or silver polytene may provide near perfect growth and potential yield.

**Key words:** mulches, *Brassica oleracea*, green coronet, weed suppression, growth and yield