

Design and development of weeding-cum-earthing-up equipment

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■ **ABSTRACT** : Every year in India, an average of 1980 Cr of rupees is wasted due to weeds. Our country faces the total loss of 33 per cent of its economy from weeds. Shrinking farm lands, acute labour shortage, decreasing income per acre of cultivation, and economic frustration are some of the key factors hurting a farmer's confidence in continuing farming. Weeding control is done by: mechanical weeding, thermal weeding: flaming, biological control, chemical control and by farming pattern. It has always been a problem to successfully and completely remove weeds and other innocuous plants and also earthing-up the crop. In order to overcome these problems weeding-cum-earthing-up equipment was developed. This work involved the design and construction of low cost weeding-cum-earthing-up equipment, which consists of two main units viz., first weeding unit and second soil cutting and earthing-up unit. A serrated blade and two discs were selected for weeding and earthing-up operations, respectively. The weeding efficiency and cutting width of developed equipment was found 90.7 per cent and 35 cm, respectively.

■ **KEY WORDS** : Weeding, Earthing-up, Working width, Weeding efficiency

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