

Volume 8 | Issue 1&2 | April & October, 2017 | 35-38 e ISSN-2230-9284 | Visit us : www:researchjournal.co.in DOI : 10.15740/HAS/ETI/8.1&2/35-38 ARTICLE CHRONICLE : Received : 02.04.17; Revised : 05.09.17; Accepted : 19.09.17

Research Article

Performance and evaluation of laser land leveler with conventional method in Allahabad

PRASHANT KUMAR, PRASHANT SINGH AND RAHUL KUMAR YADAV

ABSTRACT

Land development is the prime components of precision forming. Unevenness of fields leads to in sufficient use of irrigation water. The present study was conducted to evaluate the performance of laser land with conventional method was conducted at Champatpur in Allahabad region. The performance evaluation was done on the basis of actual field capacity, field efficiency, fuel consumption, cost of operation and leveling index with that of conventional method to prove the effectiveness. The operating average speed was varying from 1.5 to 2.50 kmph to evaluate the variables. A comparative evaluation of the laser land leveler with conventional method of leveling showed that the percentage reduction in standard deviation of reduced level, before and after leveling was 85.7 per cent for laser leveler and 46.79 per cent for conventional method, which was 38.91 per cent lower than the laser leveler. From the results of contours analysis, it was observe that considerably higher accuracy of grading was obtained when fields were graded by use of the laser leveler. The field capacity cost of operation for lesar leveler were 0.126 ha/h and Rs. 804.20 ha⁻¹, respectively *i.e.* they were 0.18 ha/h and Rs. 690.24 for conventional leveler, respectively. The cost of leveling per hectare was Rs. 6382.57 and Rs. 3834.67 for laser leveler and conventional leveling.

KEY WORDS : Performance, Evaluation, Laser land leveler, Conventional method

How to cite this Article : Kumar, Prashant, Singh, Prashant and Yadav, Rahul Kumar (2017). Performance and evaluation of laser land leveler with conventional method in Allahabad. *Engg. & Tech. in India*, **8** (1&2) : 35-38; **DOI : 10.15740/HAS/ETI/8.1&2/35-38**.