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Abstract:	Draught animal power is one of the major farm power sources of Jharkhand state. Bullock is one of the cheapest sources of draught power for all kinds of agricultural operations in Jharkhand because large agricultural machines like tractor and power tiller are neither practicable nor economically viable due to poor financial condition of farmers and fragmented land holdings. Considering the draught animal size as well land holding capacity of farmers of Jharkhand state, an animal drawn multi crop seed-cum-fertilizer drill has been developed. The seed drill was evaluated in laboratory as well as in field condition on wheat, horse gram, upland rice and black gram crops. The average draft and power requirement of the developed seed-cum-fertilizer drill was 416.74 N and 0.372 kW, respectively. The average effective field capacity and field efficiency of the developed seed-cum-fertilizer drill were 0.069 ha/h and 65.9%, respectively at an average speed of 2.37 km/h for sowing of wheat crop. The cost of operation for sowing of wheat by developed animal drawn seed-cum-fertilizer drill was Rs 790.4/ ha where as by existing animal drawn birsa seed drill (1442.9 Rs/ha) and sowing behind plough (2286 Rs/ha). Thus, there is a saving of amount Rs 1498/ ha with the developed seed drill. The machine is suitable for sowing of upland rice, wheat, black gram, horse gram and such other small seed. The performance of the machine was found satisfactory.

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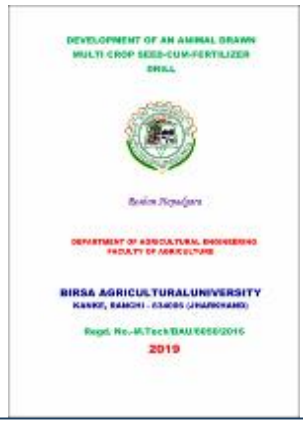

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