



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Development of a Precision Seed Drill for Oilseed Rape

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Abstract: At the present time, the most widely used machine for seed and oilseed planting is a seed drill with a roller-type-metering device. Due to nonuniform spacing of seeds along the rows and lack of control on planting depth, this machine aggravates the growth related problems and degrades the quality of a sensitive crop such as oilseed rape. To solve the above-mentioned problems, an attempt was made to develop a precision seed drill with a roller-type-metering device and a depth control system. Some of the design parameters affecting the uniformity of seed distribution were studied from the view point of roller and brush geometry. Computer software packages were used to design the machine and simulate its operational performance. In the laboratory test, it was found that the precision seed drill performed satisfactorily and its speed and vibration did not affect the performance of metering system significantly. In the field test, a uniform distribution of seed with a reasonable spacing along the row planting was achieved and seed scattering was found to be within an acceptable range.

Key Words: Oilseed rape, precision seed drill, conventional drill

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