

型孔轮式排种器弹性随动护种带装置设计

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摘要: 传统的型孔轮式谷物排种器都采用固定式护种板, 由于种子与护种板之间的相对运动和摩擦, 不可避免地对种子造成损伤, 同时会对护种板内表面和排种轮外表面造成磨损。设计了一种可拆式弹性随动护种装置, 弹性护种带与排种轮一起转动, 由于种子与护种带之间没有相对运动, 大大降低了对种子的损伤和排种轮外表面的磨损。对弹性随动护种带装置的结构和护种带的材料、形状、强度和长度进行了优化设计。安装了弹性随动护种带的水稻精量穴直播机台架试验、样机试验和性能检测结果表明, 稻种的破损率可降至0.3%。 Guard ring is usually used in the traditional cell wheel feed. Because of the relative movement and rub between the seeds and the guard ring, it will cause the damage of seeds and the wear and tear of the inner face of guard ring and the outer face of cell wheel. A disassemble rubber guard device was developed and the rubber guard tape could rotate with the cell wheel simultaneously. The rate of damaged seeds and the wear and tear of the outer face of cell wheel decreased significantly because there was no relative movement between the seeds and the rubber guard tape. The construct of the disassemble rubber guard device and the material, shape, strength and length of rubber guard tape were optimum designed. The disassemble rubber guard device was installed on the precision rice hill-drop drilling machine. The test results in laboratory and in field showed that the rate of damaged seeds is less than 0.3%.

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