1GYF-120型甘蔗叶粉碎还田机的设计与试验

Structural design and experiments on sugarcane leaf shattering and returning machine

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英文关键词：sugarcane leaf pick-up profiling shattering and returning machine

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中文摘要：

设计了一种采用仿形集叶器的甘蔗叶粉碎还田机，使甩刀离地沟间隙可超过垄高，较好地解决了普通甩刀无法捡拾沟底甘蔗叶的问题，田间试验结果表明：单位时间燃油消耗量降低约7%，捡拾率提高约4%，粉碎率提高约11%，粉碎后长度由25 cm降低到20 cm，满足了甘蔗叶粉碎质量和生产农艺要求。并经理论分析和田间试验确定了仿形集叶器、刀辊、甩刀等关键部件的结构及主要参数。

英文摘要：

A sugarcane leaf shattering and returning machine which adopted profiling pick-up device was designed to make it possible th at the gap between flail knife and furrow is larger than the ridge height. The machine quite satisfactorily solved the problem tha t the flail knife of sugarcane leaf shattering and returning machine could not pick up the sugarcane leaf from the bottom of furro w. Field tests indicated that the fuel consumption per unit of time was lowered by 7%, pick-up rate was increased by 4%, shatterin g rate was improved by 11%, and the leaf length after being shattered was shortened from 25 cm to 20 cm, which basically met sugar cane leaf’s shattering quality standards and agronomic requirements. At the same time, theoretical analysis and field tests on su ch key components as profiling pick-up device, knife-roller, and flail knife were conducted to determine their structures and key parameters.

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