

无线局域网技术在田间秸秆粉碎功耗测试中的应用

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关键词: 秸秆粉碎 功率测试 无线局域网 虚拟仪器

摘要: 将无线局域网技术引入玉米秸秆粉碎机的田间粉碎测试中, 实现了对玉米秸秆田间粉碎功耗的无线遥测, 田间测试试验证明该无线局域网测试系统安全方便。同时通过回归正交试验方法获得当机车前进速度为2.9 km/h, 刀辊转速为597 r/min时, 秸秆粉碎性能最佳工作指标为粉碎功耗2.98 kW, 粉碎合格率90.017%。 Real-time test for an agricultural machine was very complex in the field and the traditional method of test for consumed power of cornstalk breaking was taken by wire. Now a new method of consumed power measurement was introduced. By means of wireless local area networks technology, the consumed power of cornstalk breaking was measured easily and safely in the field. By adopting orthogonal regression experiment, the results showed that when the speed of corn chopper was 2.9 km/h and the rotary speed of knife axis was 597 r/min, the optimal parameters of consumed power and the percent smashing quality were respectively 2.98 kW and 90.017%.

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