

大田尺度下车载式土壤多参数测量方法研究 On-the-go Measuring Method of Soil Parameters in Field-scale

盛文溢 曾庆猛 林剑辉 Schulze Lammers P 孙宇瑞

中国农业大学

关键词: 土壤参数 车载式测量 大田尺度 相关分析

摘要: 应用自行研制的土壤含水量、电导率与耕作阻力车载测试系统以及EM38电导率测试仪, 在特定的耕作和施肥管理制度试验田中进行大田尺度下的土壤多参数车载测量研究。在土壤参数空间分布信息基础上进行相关分析, 结果表明复合传感器具备农田土壤含水量和电导率变异响应能力, 进一步建立了农田土壤电导率与含水量、耕作阻力以及施肥信息之间的统计预测模型。 On-the-go measurement of soil parameters in field-scale, which managed in a determinate farming and fertilizing mode, was carried out using soil moisture content (MC), electrical conductivity (EC) and mechanical resistance (MR) measuring system and EM38. The correlativity among the soil parameters was investigated based on the soil parameter spatial distribution. The results showed that the combined sensor could response the field MC and EC variation. Soil EC in field scale could be predicted by soil MC, MR and fertilizing information.

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