



# 简报

2015年1-3月 (总第22期)

## 工作进展

### 协作网新项目获农业部资助

农业部环境保护科研监测所与英国洛桑研究所、苏格兰农学院合作项目“农田土壤碳汇计量监测技术体系引进与应用”获得农业部资助。项目为期两年,于2015年1月开始,2016年12月结束。项目将在协作网框架下执行。

关于项目的详细信息,请联系赖欣: [laixin@foxmail.com](mailto:laixin@foxmail.com).

### “中英可持续集约化农业养分管理和水资源保护”项目取得重要进展

3月下旬,由英国伦敦大学东亚与非洲学院、兰卡斯特大学专家和环境保护科研监测所科研人员组成的考察组一行在农业国际交流与合作专项的支持下,对江苏相城、宜兴进行考察交流,并现场进行了项目成果培训。

26日,中英可持续农业创新协作网第四工作组项目会议在苏州举行。在会议上,项目组展示了农田氮磷养分足迹开展的前期研究结果,优化了模型参数及分析方法。同时,基于入户问卷调查结果,英国专家还对参与项目的当地政府官员、农技推广人员和农户进行了技术指导 and 培训,并对当地可持续集约化农业发展建言献策。

会议中,中英双方商定年底举行项目总结会

“中英可持续集约化农业养分管理和水资源保护项目”是环境保护科研监测所任天志所长在中英可持续农业创新协作网框架下与英方伦敦大学东亚与非洲学院 Laurence Smith 教授共同主持的联合项目。项目主要目的是通过研究典型农田耕作模式下养分流失特征,参考国际有关养分流失的研究案例,运用养分流动模型、养分转化运移集成模型和农田管理措施模型等为防控农业面源污染和保护水资源做贡献。(赖欣供稿)



## 论文发表

协作网课题组成员贾相平教授等最近在国际刊物发表论文。新发表的论文是协作网课题“改进养分管理，促进低碳经济”的产出之一，这项课题由英国外交部和中国农业部共同资助。

Xiangping Jia, Jikun Huang, Cheng Xiang, and David Powlson, **Reducing Excessive Nitrogen Use in Chinese Wheat Production Through Knowledge Training: What Are the Implications for the Public Extension System?** *Agroecology and Sustainable Food Systems*, 39:189–208, 2015. DOI: 10.1080/21683565.2014.967436

### **Abstract**

Excessive use of nitrogen fertilizer in crop production in China leads to environmental problems, and farmers' lack of knowledge is the primary constraint. The public extension system, however, lacks the accountability and capability to deliver ecoagricultural extension services to farmers. Previous studies show that extension staff had little incentive to deliver extension services because they were overwhelmed by assigned non-extension activities. By applying a combined incentive scheme of cash rewards and political motivation on extension agents from 2009 to 2010, we found that knowledge training effectively reduced nitrogen use by 7% with no impact on yields in wheat production in two locations in Shandong Province, a major grain production region in north China. As such, improving nitrogen management has a great potential for a low-carbon agriculture in China and should be included into the extension program. However, the effectiveness of the training depends largely on the institutional capacity of the local extension system, which varies by region. In counties where extension employees were overwhelmed by assisting township administrations, a pure economic incentive without a long-term commitment was not effective. In the future, China faces challenges with delivering low carbon technologies through the existing agricultural extension system.

## 协作网成员信息

### **Dave Chadwick 教授受聘中科院国际人才计划**



协作网养分管理工作组组长 Dave Chadwick 教授获中国科学院国际人才计划资助，受聘中国科学院亚热带农业生态研究所。Chadwick 教授将与吴金水和葛体达研究员合作研究影响农业土壤温室气体排放过程，检验减少排放措施。

Chadwick 教授还与中国农业大学陈清教授，北京沃土天地生物科技有限公司 (VOTO Biotech Ltd. Beijing) 及丹麦和西班牙的研究人员合作研究如何在污泥生物堆肥过程中更好的保留营养成分。

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