



农业信息 科研进展 2012

● 中国农业科学院农业信息研究所 编著

SCIENTIFIC RESEARCH
PROGRESS IN AGRICULTURAL INFORMATION 2012

Compiled by Agricultural Information Institute, Chinese Academy of
Agricultural Sciences

中国农业科学技术出版社
China Agricultural Science and Technology Press



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前 言

2012年是农业信息研究所全面启动现代科研院所建设，实现研究所跨越发展的关键之年。面对繁重的“十二五”科研工作任务、面对复杂对象的高难度服务需求、面对所外院外的激烈竞争环境，全所紧密围绕深入开展自主创新的整体布局，始终瞄准增强信息所综合实力这一核心目标，深入谋划、统筹兼顾、周密部署、克服困难、坚持发展，全面落实本年度各项工作计划，取得了良好的成绩。在全体职工的共同努力下，全所科研创新、公益服务、期刊编辑等工作取得新的进展，后勤保障、研究所管理、人才队伍建设、党建与精神文明建设等方面也取得了优异成绩，圆满完成了各项工作任务。

《农业信息科研进展》原名《农业信息技术与信息管理》，从2002年起每年公开出版一册。主要是将我所科技人员当年发表的学术论文和撰写的科技报告选编成册，以充分检阅和展示这些成绩，尊重和激励全所科技人员的创造性劳动，更广泛地宣传和用好这些研究成果。

《农业信息科研进展2012》集中反映了2012年我所在农业信息技术、农业信息管理、农业信息分析等学科领域的科研进展，收集了科研人员在农业信息管理系统管理、农业信息智能分析、农业信息网络技术、农业数据库建设、农业信息资源管理、农业信息化、农产品供求分析、期刊编辑等方面的研究论文与探讨类文章。

《农业信息科研进展2012》共选编了我所研究人员2012年度的论文与科技报告41篇，分农业信息化战略、农业信息技术、农业信息分析、农业信息资源管理4个部分。

本书附录中收录了中国农业科学院农业信息研究所组织机构和负责人的名

单，以及 2012 年部分在研课题、出版著作、获奖科研成果、登记的软件著作权、获得的专利权、主持起草并颁布实施的行业标准等情况，还选编了我所大事记，以进一步增强本书的纪实性。

为方便交流，收录的学术论文题目和作者采用了中英文两种文字。我们希望通过本书的出版，进一步得到社会各界对我们工作的关心与支持，不断提高我所的科技创新能力、公益服务能力和成果应用能力，也希望能通过这种形式加强与科技同行的学术交流，共同为我国农业信息科技事业发展作出新的贡献。

中国农业科学院农业信息研究所所长



2013 年 3 月

Foreword

2012 is a critical year for an over initializing modernization construction of research institutions, and realizing span development of research institutions. Facing with heavy “12th five-year Plan” research tasks, faced with high difficult service demand of complicated objects and the fierce competition condition outside AII-CAAS and CAAS, The whole AII-CAAS has been closely around the overall layout of independent innovation, always aimed at the core object of enhancing the comprehensive strength of AII-CAAS, deepened planning, adopted overall planning and all-round consideration, made careful arrangements, overcome difficulties, insisted on development, fully implemented the annual work plan, and gained excellent development achievements. Under the common efforts, the whole AII-CAAS has gained new development in the research innovation, public service, periodical editing, and gained outstanding achievements in logistical support, institution management, talent team construction, Party construction and Party of spiritual civilization construction, and successfully finished the work tasks.

“Scientific Research Progress in Agricultural Information” formerly under the title of “Agricultural Information Technology and Information Management”. It has been published each year since 2002. It mainly collects academic papers and science and technology reports written by the research staff of the AII-CAAS, so as to fully review and demonstrate these achievements, show respect and encourage the creative labor of all the staff, and propagate and better apply these research achievements even more extensively.

“Scientific Research Progress in Agricultural Information (2012)” has centrally reflected the research progress of the AII-CAAS in 2012 in agricultural information technology, agricultural information management, agricultural analysis, and other disciplines, and collected research papers and discussion ar-

ticles written by research staff in the aspects of agricultural information system management, agricultural information intelligence analysis, agricultural information network technology, agricultural database construction, agricultural information resource management, IT application in agriculture, farm produce supply and demand analysis, agricultural periodical editing , etc.

“Scientific Research Progress in Agricultural Information (2012)” has selected 41 papers and science and technology reports written by the research staff of the AII-CAAS. It is broken down into 4 parts: Strategy for IT Application in Agriculture, Agricultural Information Technology, Agricultural Information Analysis, and Agricultural Information Resource Management.

The Appendixes of this monograph have collected a list of the organizations of AII-CAAS, and their responsible people as well as partial on-going research projects, prized research achievements, registered computer software packages, gained patent rights, sector standards presided, drafted and implemented sector standards. In addition, it has edited the Events of the AII-CAAS in 2012, so as to further enhance the monograph on-the-spot.

For the convenience of communication, this book has collected the title and author of the academic papers in both Chinese and English languages. We hope that through the publication of this monograph, we can further get the concern and support of our work by all walks of life in the society, continue to improve our science and technology innovation capacity, public welfare service capacity and industrial development capacity, strive to strengthen academic exchange with science and technology colleagues through this form and jointly make new contributions to the development of agricultural information science and technology undertakings in China.

Xu Shiwei

Director-General,
Agricultural Information Institute,
Chinese Academy of Agricultural Sciences (AII-CAAS),

March 2013

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Strategy for IT Application in Agriculture

- ◆ 大数据与农业监测预警
- ◆ 发展中的农业信息学
- ◆ 国家农村信息化示范省建设的进展及分析

