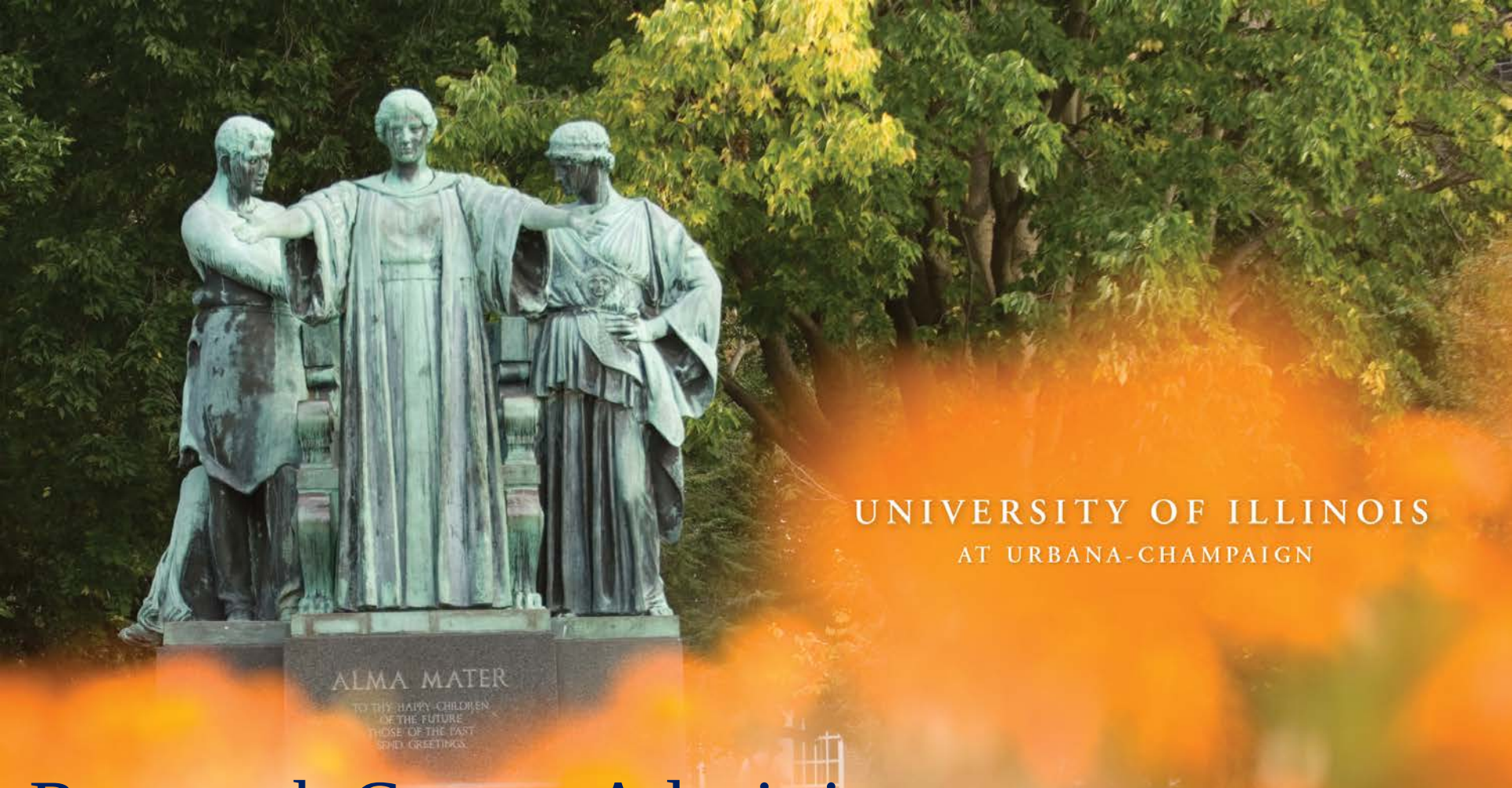


UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Research Center Administrators Role in Global Engagement

One Experience

Robert Dunker
College of ACES

21st Century Land Grant Universities

- Research programs must seek to solve global problems and build a knowledge base for future sustainable development
- Education in the 21st Century must be more than learning facts.
- The lessons from historical investments in education and discovery that occurred in Land Grant Universities, are the way forward to meet global challenges.

Challenges Facing Crop Scientists in the 21st Century - Norman E. Borlaug

- Expanding the World Food Supply
- Expanding Agricultural Lands
- Increasing Production on Lands Already in Agricultural Use
- Stress Tolerance
- Increasing Genetic Yield Potential
- What Can We Expect from Biotechnology?
- Educating Urbanites about Agriculture
- Agriculture and the Environment

Global Challenge
Population and Hunger

- Need to double food production to feed a population expected to reach 9 billion by 2050
- At present 50 % of the food in developing countries is lost on farm or post-harvest
- Food Security

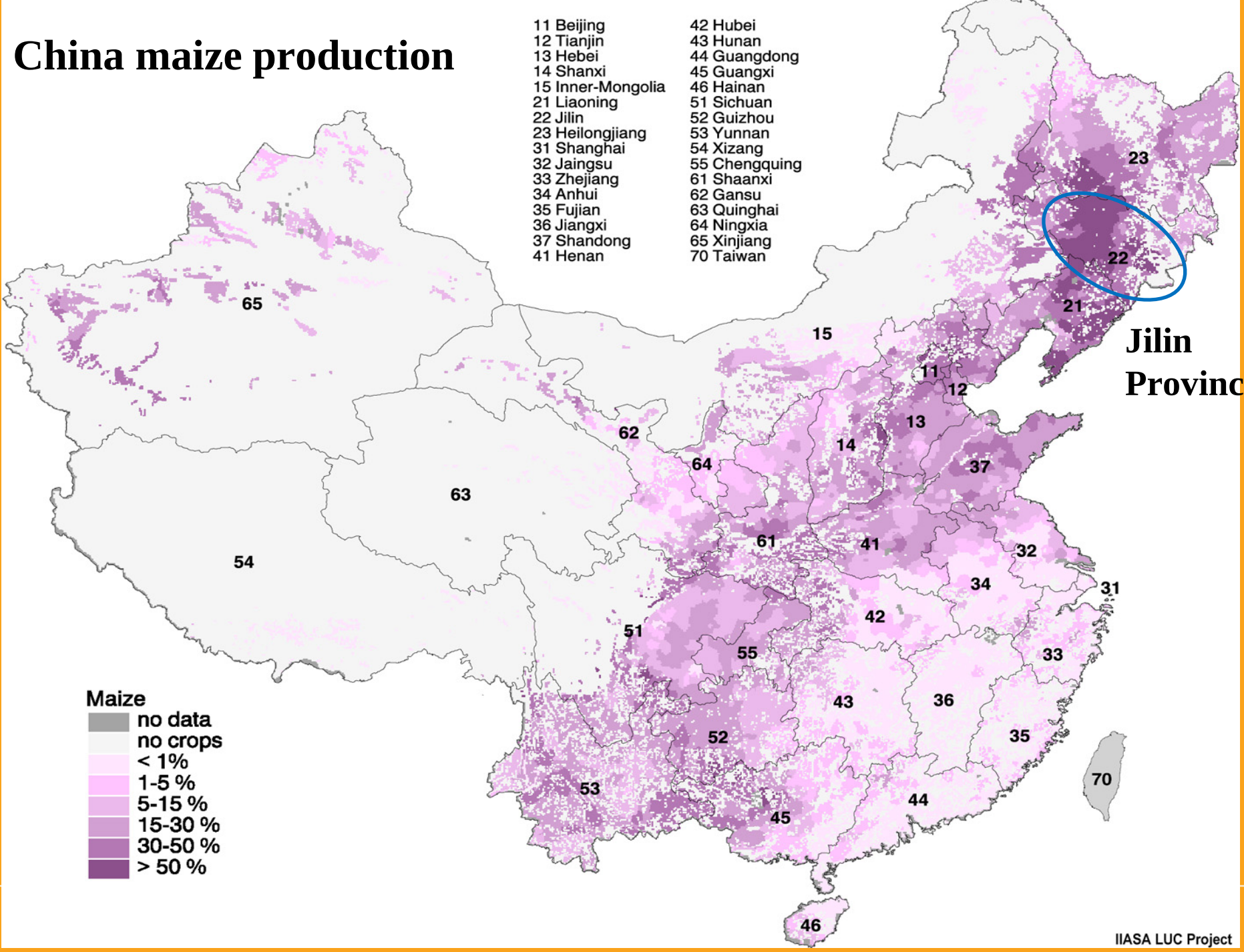
ACES Academy FOR Global Engagement

China Immersion Trip

September 5 – 19, 2009


Five China Cities
Hailar
Qiqihar
Harbin
Changchun
Shenyang
Yining
Kuqa
Urumqi
Aksu
Korla
Turpan
Kashgar
Yellow River
Hohhot
Beijing
Dunhuang
Jiayuguan
Baotou
Tianjin
Hetian
Yinchuan
Datong
Golmud
Xining
Lanzhou
Taiyuan
Shijiazhuang
Qingdao
Zhengzhou
Tibet
Xian
Kaifeng
Luoyang
Nanjing
Suzhou
Lhasa
Hefei
Shanghai
Shigatse
Tsedang
Chengdu
Yichang
Wuhan
Hangzhou
Tingri
Gyangtse
Chongqing
Huangshan
Zhangmu
Everest
Changsha
Lijiang
Nanchang
Yangtze River
Guiyang
Fuzhou
Dali
Guilin
Kunming
Yangshuo
Xiamen
Guangzhou
Taiwan
Shenzhen
Hong Kong
Nanning
Macau
Haikou
Dongsha Islands
Sanya

China maize production



Jilin Province

China Agriculture Trade Fair 2009
Changchun, Jilin Province

Sweet Sorghum


省级重点龙头企业
吉东16
吉东8
吉东28
脱水快 / 抽细粒深 / 米质好
吉东31
抗病 抗倒伏 活秆成熟
吉东23
综合抗性好/不挑地/果穗均匀
吉东种业
辽源市农业科学院
辽源农科院 吉东种业 辽源农科院
辽源农科院
中国种业五十强
吉林省著名商标
吉林省名牌产品
辽源市农业科学院位于辽源市人民大街198号，内设机构：院办公室、科研人事处、财务处
科研机构：植保所、玉米所、大豆所、水稻所、园艺所、生物技术中心。农科院科研力量雄厚
技术人员68人，并拥有自主产权的现代化科研楼和13万余平方米的科研用地，在海南有稳定的
研楼。农科院确立了“以玉米研究为中心，以山地育种和抗病育种为重点，同时进行植保、栽培
蔬菜等研究，同时做好区域性科技成果推广转化、农技推广人员培训、基层科技人员培训、农业
办院方针。以科研、开发、推广为载体，以促进成果转化为核心，积极开展应用研究、应用基础
业生产中的关键技术问题，开展科技成果示范和科技服务，为农业和农村经济发展提供技术支撑，
隶属于辽源市农业科学院的吉林省吉东种业有限责任公司，拥有先进的种子加工、检验、仓
有全国范围农作物种子经营许可证。2006年被农业部认定为中国种业五十强企业、被吉林省政府
业，连续多年被吉林省农委评为诚信种子企业，并以质量和信誉塑造了“吉东”品牌，“吉东”
东”系列品种荣获吉林省名牌产品称号，公司已通过ISO9001:2000国际质量管理体系认证，并
业。
公司现拥有自主知识产权的审定品种19个，其中国审品种吉东16号、吉东28号、丹科2123；
东8号、吉东7号、吉东8号、吉东10号、吉东14号、吉东17号、吉东20号、吉东21号、吉东22号
科研所
辽源市农科院
海南
088 吉林省
吉东 23号 吉审玉：2006023
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农民朋友一个电话，金源公司
雷沃欧豹TD 904
EUROPARD
LOVOL


JOHN DEERE
JOHN DEERE
JOHN DEERE
JOHN DEERE
JOHN DEERE
JOHN DEERE
东风
1548
四平东风


JOHN DEERE
政府项目
补贴车
6488
465C

Jilin University

International partnership to aid in research, teaching

GLOBAL CONNECTIONS

Robert Easter, right, dean of the College of Agricultural, Consumer and Environmental Sciences and interim provost, and Wenyu Han, president of Jilin University-Heping Campus, shake hands after signing an agreement that will facilitate research and teaching collaborations between the UI and Jilin in areas such as crop sciences, human nutrition and biotechnology.

Jilin University Presentations

Presentation Titles: ACES Global Academy

学术报告一

合成生物学：未来的生物技术

"Synthetic Biology: The Future of Biotechnology"

报告人：Kaustubh Bhalerao 博士，农业与生物工程系副教授

Dr. Kaustubh Bhalerao, Assistant Professor, Department of Agricultural and Biological Engineering

学术报告二

基于空间土壤性质的基本农田开垦评价系统

"System to evaluate Prime Farmland Reclamation Success Based on Spatial Soil Properties"

报告人：罗伯特 丹尼克，农学家，作物科学系

Robert Dunker, Agronomist, Department of Crop Sciences

学术报告三

将病原真菌用做生物除草剂进行抗杂草除草剂管理

"Using Fungal Pathogens as Bioherbicides for Managing Herbicide Resistant Weeds"

报告人：洛雷塔 奥尔蒂斯－瑞宾博士，作物系统推广专家，伊利诺伊

Dr. Loretta Ortiz-Ribbing, Extension Specialist Crop Systems, University of Illinois Extension

学术报告四

"微生物应激反应"－从毒力到生物燃料

"Microbial Stress Responses: From Virulence to Biofuels"

报告人：曼弗雷多 赛费黑尔德博士，自然资源与环境科学学院副教授

Dr. Manfredo Seufferheld, Assistant Professor, Department of Natural Resources and Environmental Sciences

以上报告时间：2009 年 9 月 12 日下午 14 点

报告地点：植物科学楼二楼报告厅

中央治理"小金库"

关于"小金库"治

根据《中共中央纪委 监察部
在党政机关和事业单位开展"小
>的通知》（中纪发[2009]7号）要
度，拓宽群众监督渠道，保证中央
展，现将中央治理"小金库"工作
报方式公告如下：

中央治理"小金库"工作领导

举报电话：010-68413688

举报网址：http://www.mof.g

举报通信地址：北京市海淀区
政编码 100089

检查组举报方式：

联系人：张社增

特此公告。

中央治理"小
二O

Jilin University Banquet


知识是发家致富的源泉
综合图书区
众一
ZHONGYI


创新 和谐 发展
先进村镇
陈家店村
总支部委员会


农业部(玉米)万亩高产创建示范片

Courtesy, U.S. Grains Council

Courtesy, U.S. Grains Council

ACES Academy FOR Global Engagement

Immediate Research Outcomes
Direct Result of the China Immersion Trip

- **Personal interaction (Identify Needs)**
- **Willing partners (Jilin Univ, Government)**
- **Common goal (Food Security)**
- **Interested partners (Industry)**
- **University support (follow-up workshop Nov 09)**

The Introduction of Modern US Corn Production Systems to China

Research Project Objectives: Food Security & Increase Corn Production

- Precision Planting Techniques
- Nitrogen Rates and Management
- Improved Hybrids
- Plant Protection

Workshop, Nov 10, 2009
Jilin University

Project Design

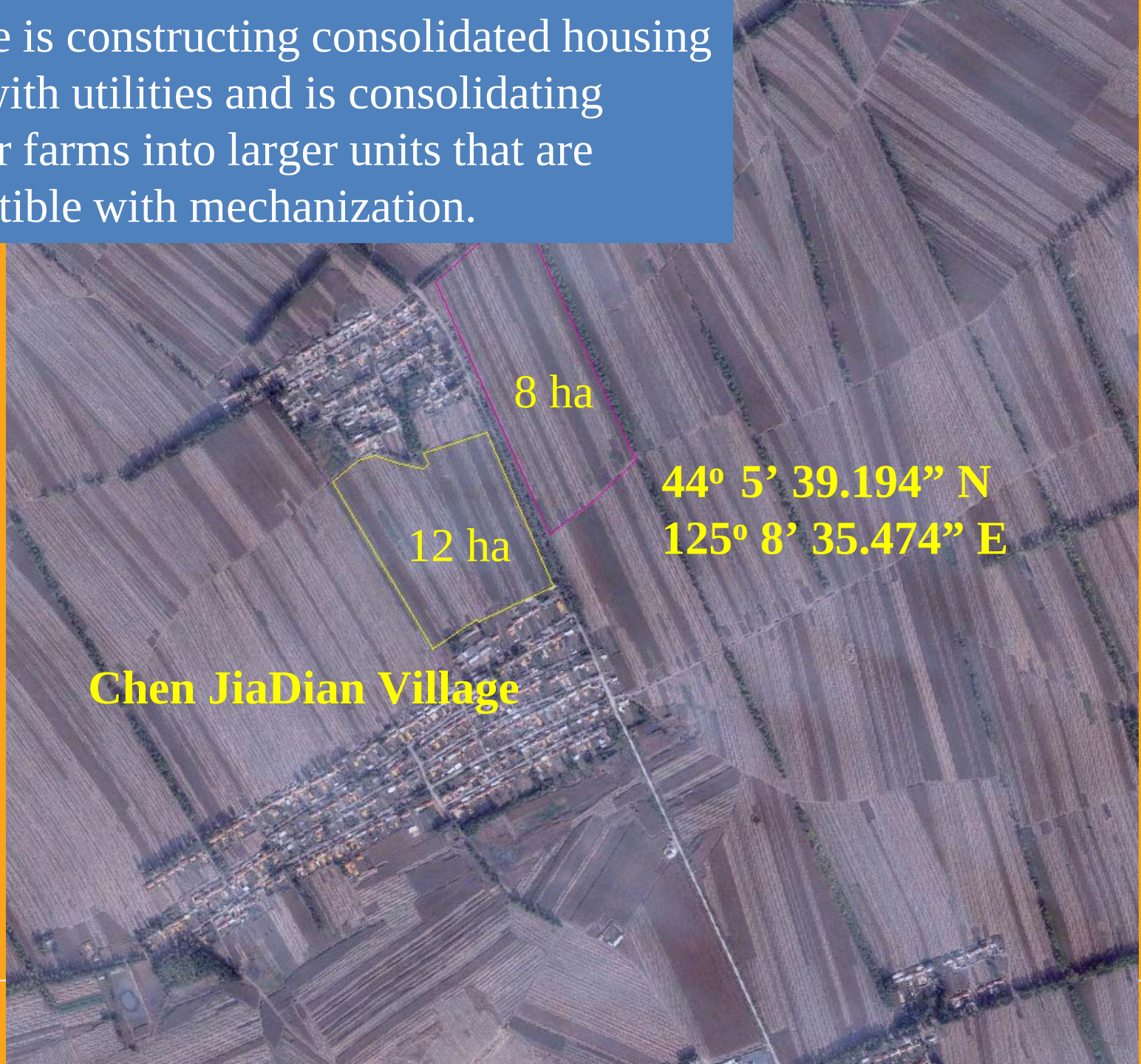
Project Duration: 3 Years

- **Large plots at Chen JiaDian Village (20 hectares)**
  - **Jilin planting system, Illinois planting system**
  - **Two hybrids**
  - **Two seeding rates**
- **Jilin Campus small plots (5 hectares)**
  - **Illinois planting system**
  - **Six hybrids**
  - **Five seeding rates**
  - **Four fertilizer rates**

Research Partners

- **ACES Office of International Programs**
- **Government of Nong'an County, Jilin Province**
- **College of Plant Sciences, Jilin University**
- **John Deere Asia**
- **Monsanto Singapore Co Ltd**
- **Pioneer Hi-Bred International**
- **Syngenta Biotech (China) Co Ltd**

Village is constructing consolidated housing units with utilities and is consolidating smaller farms into larger units that are compatible with mechanization.



AGREEMENT

among

Jilin University Heping Campus, China,
The People's Government of Nong'an County, Jilin Province, China
and University of Illinois at Urbana-Champaign, USA
On establishing International Modern Agricultural Extension Base

Party A: Jilin University Heping Campus, China
Party B: The People's Government of Nong'an County, Jilin Province, China
Party C: University of Illinois at Urbana-Champaign, USA

Based on the principle of equality, voluntariness, friendship, cooperation and mutual benefits, Party A, Party B and Party C will deepen the collaboration and build up the International Modern Agricultural Extension Base together in order to strengthen the scientific research in modern agriculture and promote modern agricultural science and technology innovation. This collaboration will provide comprehensive intellectual and technical supports to the new rural construction in China and the teaching and scientific research practice for students. The three parties have reached the following agreement after friendly consultations:


国际现代农业推广基地暨教学科研实践基地签字揭牌仪式
Ceremony of International Modern Agricultural Extension Base and Teaching and Scientific Research Practical Base
中国吉林大学农学部
Jilin University Heping Campus, China
中国吉林省农安县人民政府
The People's Government of Nong'an County, Jilin Province, China


国际现代农业推广基地
Ceremony of Internat onal Modern Agricultur
The People's


国际现代农业推广基地暨教学科研实践基地签字揭牌仪式
Ceremony of International Modern Agricultural Extension Base and Teaching and Scientific Research Practical Base


际现代农业推广基地暨教学科研实践基地签字揭牌仪式
ony of International Modern Agricultural Extensio
nd Teaching and Scientific
earch Practical Base


科研实践基地签字揭牌仪式
se and Teaching and Scientific Research
al Base
农学部
mpus, China
人民政府
unty, Jilin Province, China
分校
gn, USA
十一月


国际现代农业推广基地暨教学科研实践基地签字
Ceremony of International Modern Agricultural Extension Base and Teaching and Scientific Res
China
in Province, Chin
aign, USA
2009,
年十一月

Logistics Workshop - Chen JiaDian Village

Mar 10-12, 2010

Robert Dunker; Jilin University; Village Leaders and Farmers

Village Planter


气吸式播种机

Planting: May 14, 2010

July 10, 2010

Jilin Planter System

July 10, 2010

John Deere
Planter System


国际现代农业推广基地
Base of international modern agricultural extension
System:Jilin,Illinois
Hybrids:M752,C16502
Population(K plants/ha):55,75
Block: 9
Plots:72
Year:2010–2013
中国. 吉林大学植物科学学院
美国. 伊利诺伊大学香槟分校
中国. 吉林省农安县人民政府
College of Plant Science,Jilin University,China
University of Illinois at Urbana–Champaign,USA
The People's Government of Nong'an County, Jilin Province,China


The Trial of Key Cultivation Technique of Maize from USA
Hybrids: M752, C16502, XY335, XY420, 696, D22
Population (K plants/ha): 50, 60, 70, 80, 90
Nitrogen (kg/ha): L(100), M(150), H(200), VH(250)
Block: 4
Plots: 480
Date: 2010–2013
College of Plant Science, Jilin UniversityHeping Campus, China
University of Illinois at Urbana–Champaign, USA

Harvest
October 3, 2010


JOHN DEERE
6488


6488

Table 10. Least Squares Means for Grain Yield at Village								
Effect	System	Hybrid	Seeding Rate (1,000 seed/ha)	Yield Estimate (ton/ha)	Standard Error	DF	t Value	Pr > |t|
System * Seeding Rate	IL		55	12.4479 **198.2**	0.2622	50	47.47	<.0001
System * Seeding Rate	IL		75	12.5060 **199.1**	0.2632	50	47.51	<.0001
System * Seeding Rate	Jilin		75	11.6968 **186.2**	0.2039	50	57.37	<.0001
System * Hybrid * Seeding Rate	IL	C16502	55	13.0333 **207.1**	0.3517	50	37.06	<.0001
System * Hybrid * Seeding Rate	IL	C16502	75	13.3917 **213.3**	0.3517	50	38.08	<.0001
System * Hybrid * Seeding Rate	IL	M752	55	11.8625 **188.9**	0.3517	50	33.73	<.0001
System * Hybrid * Seeding Rate	IL	M752	75	11.6204 **184.7**	0.3545	50	32.78	<.0001
System * Hybrid * Seeding Rate	Jilin	C16502	75	12.6185 **201.0**	0.2642	50	47.77	<.0001
System * Hybrid * Seeding Rate	Jilin	M752	75	10.7750 **171.6**	0.2622	50	41.09	<.0001

Table 11. Grain Yield Estimates at Village						
Label	Yield Difference Estimate (ton/ha)		Standard Error	DF	t Value	Pr > |t|
IL vs JILIN @75	**12.8**	0.8093	0.3164	50	2.56	0.0136
55 vs 75 for IL	**0.92**	0.0581	0.3321	50	0.17	0.8618