North Korean Agriculture: Role of PUST on the Agricultural Rehabilitation & Food Security

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Pyongyang University of Science and Technology (PUST)

Korean: http://pust.or.kr/

English: http://pust.kr/



Newly Constructed and Recently Opened PUST Campus (2010)

PUST History



Academic Departments

- 1. ECE (Electrical and Computer Engineering)
- 2. IFM (International Finance and Management)
- **3.** ALS (Agriculture and Life Science)
- 4. BE (Basic Education)
- ---- upcoming ---
- 5. AEC (Architecture, Engineering and Construction)
- **6. PHES** (Center for Public Health and Environmental Science)
- 7. IC (Industrial Cluster)

Faculty Information

- 1. English Instructors: Bachelor's degree required to teach undergrads; Master's degree to teach grad students
- Full time Professor: Teach/train at YUST for one year, then teach/reside in Pyongyang
- 3. Adjunct Professor : Affiliated in prestigious universities or research institutes who come to teach for at least one semester in their sabbatical year or research year
- 4. Visiting faculty: Distinguished Professor, Emeritus Professor, or Visiting Professor

North Korea

Geographical Location: Latitude: 38 to 43 degree North

Longitude: 124 to 131 degree East

Total Land Mass: 12.2 Million HA of Rugged

Mountainous terrain

Arable Land:
 2.2million HA (18%), Flatland is

located at both coasts.

Especially at Western Seaboard

Population: 24Million

Economy: Socialistic Central Planning System

North Korean Administrative Map



Major Crop

STAPLE FOOD

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    Paddy: 570,000 HA; Rice
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• Upland: 503,000 HA; Corn
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103,000 HA; Wheat, Barley & other Cereals
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? Soybean & Minor Crops

181,000 HA; Potato

? Vegetables

320,000 HA; Orchards & Mulberry

FIBER CROP

Upland: 5,500 HA; Cotton

- ? Hemp
- ? Mulberry/Sericulture

Food security Threat in North Korea & Global Community

- 1.4 Billion People are Vulnerable of Hunger
- A child is Dying Every 30 Seconds
- Over 2 Million People Perished in North Korea
- Necessary to Implement Bio Diversity
- Re assess the conventional Farming
- Improve Sustainability
- Conserve inputs and Improve Efficiency
- Conserve Energy and Water
- New crop & New Livestock Search
- Plant Protein Improvement
- New approach to Improve Nutritional Value

Sustainable Community Development through Sustainable Agriculture

Seed Improvement; Tissue Culture

Molecular Assisted Breeding

Genetic Engineering

- Organic Fertilizer Implementation
- Bio Fertilizer
- Bio Pesticides
- Crop & Production Management; SRI, Cover Crops
- Conservation Agriculture

South Korean Rice Variety Trial September 2008



South Korean Rice Variety Trial September 2008



US Corn Hybrid Adaptation Trial at Wonwha September 1996



Winter Vegetables in Greenhouse Chonduk-ri May 2011



Potato – Cotton Inter Cropping

Dochi-ri June, 2011



Pruning Cotton at Flowering Period

Ryonpyong-ri, July, 2007



100 HA Cotton Field at Harvest

Chonduk-ri October, 2010



Former Director of Genetic Resources Bank of DPRK Helping Field Trials at PUST Campus

September, 2010



Discussing US Corn Inbred Increase & Breeding Program with Professor Shank

June 2011



President James Kim with Jay Witmeyer & Kim Joo September 1986



Professors arriving at Pyongyang Sunan Airport October 2010



New Students Orientation at PUSTMay 2011



Whole Campus Personnel Meals Together May, 2011



Students & Faculty Interaction outside of Class June,2011



ALS Graduate Students at Field with Prof ShankJune 2011



PUST can be the Hub for NK Agricultural Rehabilitation

Leadership Training Scientist & Professional Cultivation **Technology Development Research & Development Institution Extension Services** Implementation of new technology **Food Security Economic Stability Peace on Earth**

Challenge is Yours to Take !!!

Getting Involved

- Volunteer as faculty (as mentioned above)
- Support through prayer and/or donations
- Intern at YUST PUST Foundation
- Donate: Online at yustpust.org or send check payable to "YPF" to YPF, PO Box 336, Winnetka, IL 60093
- E-mail questions to yustpust@gmail.com
- Learn more at yustpust.org

New Homes at Chonduk-ri /Gift from South-North Sharing Campaign of SK

May 2011

