Food security through Ricebean research in India and Nepal

Contributor: Dr. (Mrs.) Seuji Bora Neog
Senior Scientist (Plant Breeding)
AICRP on Forage Crops
Department of Agronomy
Assam Agricultural University, Jorhat, Assam, India
Specialization: Plant Breeding & Genetics

Area of Interest: 1. Forage Crops
2. Ricebean
3. Maize
4. Lathyrus
5. Interspecific hybridization

Hobby: Interior decoration, Cooking, Dancing, Badminton
Work initiated on Ricebean at AAU

Germplasm Collection : acc. No. 50
Morphological Characteristics

Leaflet shape: Ovate to rhomboid
Terminal leaflet shape
  * Apex: Accuminate to Cuspidate
  * Base: Rounded, Obtuse, acute
Terminal Leaflet blade
  * Length: 5-9 cm
  * Breath: 5-7.5 cm
Leaf Pubesence: Puberulent - Pubescent
Petiole colour: Light green, Green, Yellowish green, Purplish green
Petole length: 5-13.5 cm
Leaf colour: Light green, Yellowish green, Green
Primary leaf colour: Light green to Green
Pulvinous length: 4-11mm
Pulvinous colour: Green, light green, purplish green
Petioluli length: 1.5 to 2.5 cm
Pulvinuli length: 2-5mm
Petiole hair: Pubeseent, Tomentose
Pubescence in young stem, petiole and tender leaf
Morphological Characterization

Group discussion is very much essential to

• Formulate the Work schedule
• Maintain the Uniformity in data recording
Hybridization

To get more biomass and green forage yield.
**Plan for the present proposal**

WP1: Supply-chain, consumer demand and marketing

- **Co-ordinating centre:** CAU Kiel
- **Supporting centres:**
  - GVT (West)
  - HPKV (North)
  - AAU (East)
  - LI-BIRD (Nepal)

Necessary technical suggestion will be required for AAU
WP2: Assessment of genetic diversity and indigenous knowledge

Germplasm collection & diversity assessment

- Farmers’ Existing Cropping System
- Ecological niches
- Yield Pattern
- Nutritional studies

Data on: (WP5)
- Ethno-botanical uses
- Local diet

Habitat
1. Maintenance of Collected Germplasm
2. Morphological characterization
3. Taxonomic evaluation
   - Groupism & Classification
   - Rank
   - Identification Key
4. Phyto-geographic significance
   -- Continuous distribution
   -- Disjunct distribution
   -- Endemism
   -- Suitability to diverse environment
5. Phenology in respect of diverse environment
Data & materials collected through WP2 will be utilized
Marketing Activities
Product development

- Strategic
- Tactical
- Operational

FOOD SECURITY
Help Required (Working Group)

• Taxonomist
• Agronomist
• Biochemist
• Extension Specialist
Thanks