

NOSSO EQUIPE IS THE STRONGEST!



SOILS STUDIES

- **Soil classification and land use evaluation**
- **Characterization of soils affected by changes in management practices**
- **Alternative practices to improve soil fertility and soil organic matter**
- **Future research in Peru**



SOILS STUDIES (CONT.)

- **Soil classification and land use evaluation**
 - ✓ **Baseline survey and participatory workshops**
 - ✓ **Field samples – GIS referenced**
 - ✓ **Maps**
 - ✓ **Soil pits**
 - ✓ **Land use evaluation: satellite imagery**
 - ✓ **Thesis student: Blas**
 - ✓ **Other people involved: Roberto, Olga, Edwin, Freddy**



SOILS STUDIES (CONT.)

Soil classification and land use evaluation:

Falta un análisis de los talleres sobre la clasificación (se debe tomar en cuenta características de color, textura, pedregosidad, etc).

Sobre el trabajo de Blas, en Ancoraimes, faltan los análisis de físicos y químicos de las muestras de suelo.




SOIL-RELATED PUBLICATIONS

“Changes in Local Perceptions of Soil Classification and Soil Quality Due to Climate Change and Socioeconomic Factors in Indigenous Agricultural Communities in the Bolivian Highlands”

Authors: R. Miranda, M. Blas, P. Motavalli, J. Aguilera, M. Garcia, J. Cusicanqui, and E. Jimenez

**En revistas de PROINPA (Revista de Agricultura),
Sociedad Boliviana de la Ciencia del Suelo.
La redacción de este trabajo se empieza en
septiembre/2007.**



SOILS STUDIES (CONT.)

- **Characterization of soils affected by changes in management practices**
 - ✓ **Baseline survey and participatory workshops**
 - ✓ **Field samples of different management practices**
 - ✓ **Degradation of soil organic matter due to changes in the time of the fallow period**
 - ✓ **Maps – Perceptions of the effects of climate change on: use of soils, weather events and cropping systems**
 - ✓ **Other studies: soil physical effects, soil microbiological effects (Leyda?)**
 - ✓ **Graduate student: Javier**
 - ✓ **Other people involved: Magali, Jorge, Roberto, Olga, Edwin, Freddy**



SOILS STUDIES (CONT.)

Characterization of soils affected by changes in management practices

Linea base:

Falta un análisis de datos sobre las prácticas y cantidad de de fertilizantes utilizados.

Alejandro de la Cordillera realizará una interpretación de las encuestas.

2 semanas para completar



SOILS STUDIES (CONT.)

Estudio sobre los efectos de la disminucion del tiempo de descanso debido al cambio climatico y cambio en condiciones socio-economicos

Los parámetros a tomar en cuenta son: Densidad aparente, Carbono total, Nitrógeno total, C.E.. El carbono y el nitrógeno se fracciona en dos partes (una fracción labil y otra estable).

Para este trabajo se requiere de 1 estudiante de licenciatura.

Javier Aguilera verá el tema de la mineralización del nitrógeno y la evaluación del CO₂, relacionados con aspectos de microbiología.



SOIL-RELATED PUBLICATIONS

Effects of Climate Change and Changes in Socioeconomic Conditions on Crop and Soil Management in Potato-based Cropping Systems of the Bolivian Highlands”

Authors: J. Cusicanqui, P. Motavalli, J. Aguilera, C. Valdivia, M. Garcia, R. Miranda, E. Jimenez and Freddy Navia.

Journal: Agricultural Systems.



SOIL-RELATED PUBLICATIONS

- “Changes in Soil Organic C and N Due to Climate Change and Socioeconomic Factors in Potato-Based Cropping in the Bolivian Highlands”
- Authors: P. Motavalli, J. Aguilera, C. Valdivia, C. Chambilla, M. Garcia, E. Jimenez, J. Cusicanqui, and R. Miranda
- ASA National Meeting, 2007



SOIL-RELATED PUBLICATIONS

- **“Management of Organic and Inorganic Soil Fertility Inputs in Indigenous Agricultural Communities in the Bolivian Highlands”**
- **Authors: J. Aguilera, R. Miranda, P. Motavalli, C. Valdivia, E. Jimenez, and C. Chambilla**
- **Journal: Mountain Research and Development**



SOILS STUDIES (CONT.)

- **Alternative practices to improve soil fertility and soil organic matter**
 - ✓ **Baseline survey and participatory workshops**
 - ✓ **Field trial**
 - ✓ **Soil samples at the beginning, middle and end of each season – chemical and physical analyses**
 - ✓ **Plant and manure samples**
 - ✓ **Agronomic measurements**
 - ✓ **Special study in Umala looking at use of Cardy nitrate meter**
 - ✓ **Thesis students: Elvio (Ancoraimes) Eliceu (Umala)**
 - ✓ **Other people involved: Javier, Roberto, Olga, Edwin, Carola**



SOIL-RELATED PUBLICATIONS

- **“Agronomic Response to Alternative Organic and Inorganic Soil Fertility Inputs in Indigenous Agricultural Communities in the Bolivian Highlands”**
- **Authors: J. Aguilera, R. Miranda, E. Aruquipa, E. Tangara, , M. A. Gonzales, P. Motavalli, and C. Chambilla.**
- **Journal: Field Crops Research**



SOILS STUDIES (CONT.)

Trabajo coordinado con el equipo del peru

Efecto del manejo de la fertilidad del suelo en Aynocas vs parcelas individuales en comunidades Aymaras de Bolivia y Peru.



DISSEMINATION OF DATA

- Copies of theses of licenciatura students will be given to communities at a workshop and the results will be explained and discussed with the community



**SUGGESTIONS?
QUESTIONS?
COMMENTS?**