RESEARCH PROGRAM TITLE: Green Production Technology for Sustained Productivity of Mango-Goat-Crop Mix Farming System: A Strategy for Adaptation and Mitigation of Climate Change

Research Venue: College of Agriculture, Central Luzon State University

Program Implementer: Dr. Federico O. Perez
Dean, College of Agriculture

Research Team Members: Faculty, College of Agriculture

Project 1 – Ecological Restructuring of Mango-based Farming and Improvement of Breeding and Feeding Practices for Sustained Goat Production

Project 2 – Biogeochemical Cycling, Carbon Sequestration and Establishment of Nutrient Budget for Mango-Goat-Crop Mixed Green Farming System

Project 3 – Economics of Mango-Goat-Crop Mixed Green Farming System

Program Implementation: January 2012

Duration: Two Years (2012-2014)

Sector/Commodity: Mango/Goat/Rice/Vegetables

Discipline: Farming System

Project 1 – Ecological Restructuring of Mango-based Farming and Improvement of Breeding and Feeding Practices for Sustained Goat Production

Study 1 – Integration of Goat and Cash Crops with Mango for Enterprise Value Adding

Objective:

1. To determine the growth and yield performance of cash crops grown under mango with goat integration
2. To determine the growth and yield performance of cash crops grown under mango with goat integration

Initial Results

Yield data on the cash crops grown such as rice, green pepper and mungbean were obtained during the first cropping season is presented in the following table.

Table 1. Yield of cash crops from the different treatments

TREATMENT	Cash Crop	Yield (kg/plot)
9 mango trees w/2 goats+rice -rice rotation	Rice	12.25
9 mango trees w/2 goats+rice –green pepper rotation	Green pepper	113.625
9 mango trees w/2 goats+ rice mungbean rotation	Mungbean	8.50
9 mango trees w/3goats+rice -rice rotation	Rice	24.00
9 mango trees w/3 goats+rice –green pepper rotation	Green pepper	468.00
9 mango trees w/3 goats+ rice mungbean rotation	Mungbean	11.50
9 mango trees w/4 goats+rice -rice rotation	Rice	66.50
9 mango trees w/4 goats+rice –green pepper rotation	Green pepper	483.125
9 mango trees w/4 goats+ rice mungbean rotation	Mungbean	19.625

Note: Plot size is 256 sq.m.

Based on the data gathered, higher yield of green pepper was obtained in plots with 4 goats . The same observation was obtained on rice yield and on mungbean.