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Date: March 16, 2005

To: Minister Estanislau da Silva
Ministry of Agriculture, Forestry, and Fisheries

From: Richard Ogoshi, Systems Agronomist
University of Hawaii

Re: Activity report for February 2005

It is with great sadness that I report Dr. Andre du Toit passed away on February 9, 2005, in Baucau. Dr. du Toit was watershed agronomist and chief of party for the University's project "Agricultural Rehabilitation, Economic Growth, and Sustainable Natural Resource Management." His death was due to accidental electrocution. Dr. du Toit's remains were transported to his home country, South Africa. His wife, Carin, who serves as project country coordinator, has relocated to South Africa along with their children.

The University of Hawaii will continue its work to accomplish the objectives stated in the project proposal. Mr. Fernando Sousa will serve as associate country coordinator and agronomist until a replacement can be found.

Project activities were limited in February, however critical activities were accomplished. Yield response curves to urea, TSP-36, and KCl are to be developed from this year's maize and rice trials. In addition, a system of rice production developed at IRRI by Dr. Balasubramanian will be demonstrated. This system, known as Integrated Crop Management, has four components: mat nursery that produces strong seedlings, square planting (25 cm x 25 cm) that gives plants room to grow, root pruning that stimulates roots to grow deep into the soil exploiting the nutrients deep in the soil profile, and leaf color chart used to schedule urea application only when the plants need it.

In Uaitobonu, paddies were prepared for two rice demonstrations. Farmers planted the rice nurseries for the fertilizer response trials. MAFF (Antonio Lopes) and University of Hawaii personnel taught farmers to produce seedlings with a mat nursery for the Integrated Crop Management trials (figure 1 below). The mat nursery produces strong seedlings that have intact root and leaves and reduces planted seed to 10 kg per hectare.

Seasonal rain forecast based on International Research Institute for Climate Prediction was demonstrated to MAFF personnel in Baucau and Dili. The forecast indicates whether rain

will be higher than normal, normal, or below normal for the proceeding 6 months. Probabilities are associated with each category. With foreknowledge of rainfall patterns, mitigation strategies can be implemented beforehand such as planting short season local varieties, lowering the crop population density, or increasing the area planted.

Production of an organic pesticide composed of garlic, mineral oil, and liquid soap was demonstrated to vegetable farmers in Fatulia. This pesticide deters some insects from damaging vegetables such as cabbage and leafy vegetables. The active ingredient garlic is readily available.

Routine maintenance for the four weather stations in Baucau District was done. The data was downloaded and formatted in Excel. The batteries require replacement and will be completed by next month. Erroneous temperature readings were found in the Seical station and a fix was attempted.

In April, Dr. Balasubramanian will conduct a workshop on the Integrated Crop Management method. He will arrive in Dili on April 24 and depart April 30. MAFF personnel, UNTL faculty, and farmers will be invited to attend. The specific time and place of the workshop will be announced.

(Figure 1 is on following page)



Figure 1. Constructing a mat nursery for rice seedling production in Uaitobonu, Baucau District. a) Farmers made the nursery planting medium by thoroughly mixing 12 buckets of soil, 3 buckets of compost, and 1 ½ buckets of rice hulls. b) The medium was placed in a 3 square meter area underlain with banana leaves and bounded by banana stems. c) seed was sown into the medium at a rate of 100 g of seed per 1 square meter of nursery. d) The seed was irrigated using a watering can with a sprinkler head. The seedlings are transplanted 14 days after planting. One square meter of nursery covers approximately 100 square meters of paddy which translates to 10 kg of seed per hectare of paddy. Normally 25 to 35 kg of seed are planted to a hectare.