BuroTrop

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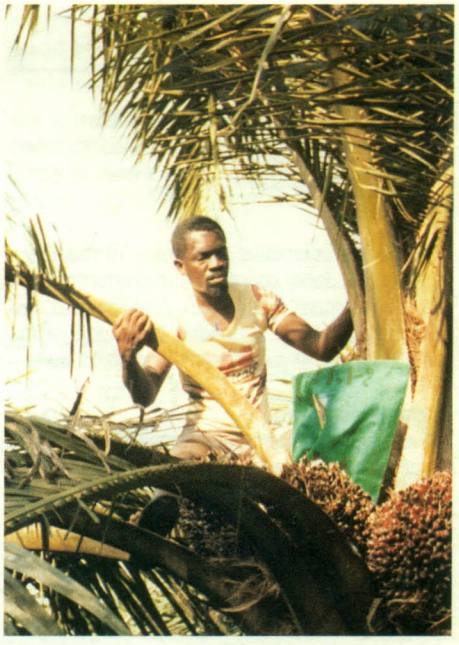
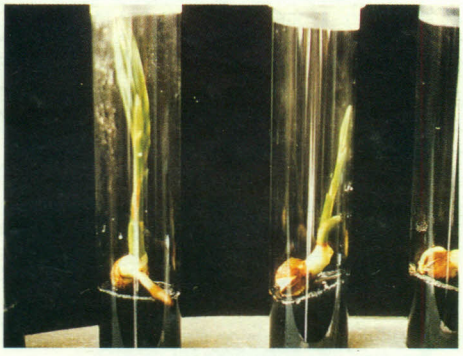
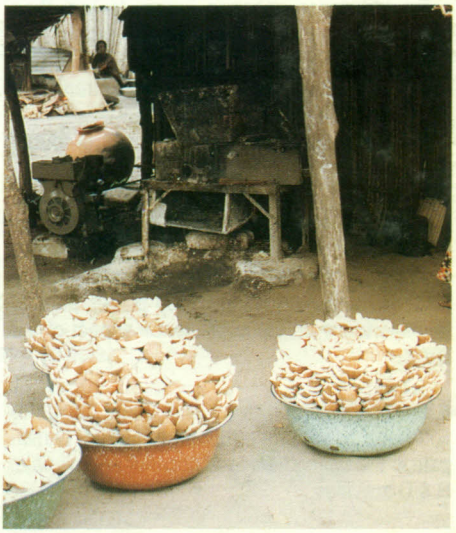
Bulletin BuroTrop







Research news

Coconut Husk as Potting Medium for Forest Tree Seedlings

Based on a research project conducted between 1988-1989 at ACFTSC (ASEAN - Canada Forest Tree Seed Centre Project) in Thailand's Saraburi province, it was found that coconut husk is a most effective potting medium in the large scale production of forest tree seedlings, particularly with regards to rates of growth and vigour of the seedlings. Coconut husk was found to be superior to soil and sand in almost all respects but its sole drawback is the lack of micro nutritients in coconut husk and it is recommended that it be used with a fertilizer. It was recommended that coconut husk be placed in transparent plastic bags (fastest growth of seedlings were obtained in 3x5 inch bags and 3.5x7 inch bags for broad leaf seedlings.) Then cut the two bottom corners of the bag at an angle, which in the long term will allow the roots to grow downward instead of producing curled roots. The research project also solved the problem of filling the plastic bags with husk by innovating a 20 to 40 US$ device to enable to workers to fill 2,400 bags a day."

Biomass Users Network News, Vol 5 No 7

Control of *Coelaenomenodera minutal* Uhlman with Crematogaster species

Coelanomenodera minuta Uhlman is one of the major pests of the oil palm, *Elaeis guineensis* Jacq, in West and Central Africa. An epidemic by this leaf miner pest reduces oil palm yields by as much as 30%. A leaf miner outbreak on oil palms at Lobe (Cameroon) was first recorded in 1972. Since then over $US200 000 were spent annually on insecticides to eradicate the pest, but it was never brought under permanent control. Results indicate that leaf miner parasites were either rare or missing, and that the fauna of the *Crematogaster* species was very poor. These findings led to the conclusion that the natural enemies of the pest were under pressure of insecticides. The deployment of *Crematogaster* species led to a decline of the leaf miner pest population in all treated fields. The reduction in the pest population was mainly due to the destruction of the larval galleries resulting in the exposure of larvae to unfavourable temperatures, heavy rains, attacks by parasites and predators. A system for monitoring and keeping the pest population below threshold level by the use of *Crematogaster* species proved effective and it is recommended in young palm plantings even in areas where the pest is endemic. This control method will lead to considerable cash savings and the preservation of the environment.

Tropical Pest Management, 1991 37(4). I.N. Timti

Agronomic research on oil plalm in Brazil

by Edson Barcelos, Embrapa

1.Oil Palm Research in Brazil

Agronomic research on oil palm in Brazil is carried out at the EMBRAPA centre (CPAA) of Manaus in the Amazon, in cooperation with CIRAD-CP since 1980. At the present time this cooperation is materialized by the permanent presence of an Agronomist-Breeder of the oil palm programme on secondment to EMBRAPA.

The growing economic importance of *Elaeis Guineensis* in Brazil, in particular in the eastern part of the Amazon Basin, has lead the Brazilian government to establish a research centre on oil palm at 150 km east of Manaus, close to Rio Urubu. The "Rio Urubu" station has:

- A relatively representative situation of the most cultivated areas of the Amazon through its soil (Yellow Latosol).

- A rather favourable climate for oil palm growing : with an average of 2250 mm of rain, relatively well distributed, i.e. with a maximum hydric deficit of 200 mm (observations over 8 years : 1985-92).

2.The Achievements

In order to continue the research work, in particular in the area of genetic improvement, planting material has been introduced on the Rio Urubu Station since 1983. At the present time the Unit consists of:

- 56 hectares of Dura x Dura descendants, for the breeding of mother -trees with a high genetic potential.

- 35 hectares of Tenera x Tenera and Tenera x Pisifera crossings with good aptitudes for combination, for the production of Pisifera pollen for industrial supply of high yielding Dura x Pisifera.

- 199 hectares consisting of 20 hybrid tests, with the aim of breeding parents with the best general or specific aptitudes to combination in Amazon conditions and three tests on clonal material.

- 50 hectares of collections from several prospections in Brazil - Amazon (E. Oleifera), from the region of Bahia (subspontaneous E. Guineensis) - in Africa (Angola, Côte d'Ivoire, Cameroon) and crossings among E. Guineensis.

- 48 hectares containing 4 important agronomic experiments.

3.Future Prospects

The Rio Urubu Station disposes of a major potential of production of high quality selected seeds, from confirmed parents, and of the necessary infrastructure.

At the time being the Rio Urubu Station can produce annually one million D x P seeds, enough to plant 5000 hectares.

The richness and the diversity of the existing planting material permits to anticipate the continuation of oil palm breeding in Latin American conditions.

4.Research News from Brazil

In order to assist EMBRAPA to maintain the Rio Urubu oil palm collections in good state, the French Foreign Ministry allocated a grant of 1 million French Francs for 1993.

Besides the existing main building - laboratory (insemination, seed preparation, bunch analysis), a new building , entirely fianced by the World Bank is being built in Rio Urubu and will hold in particular an electric seed tray and an air conditioned room for the seeds produced on the Station.