

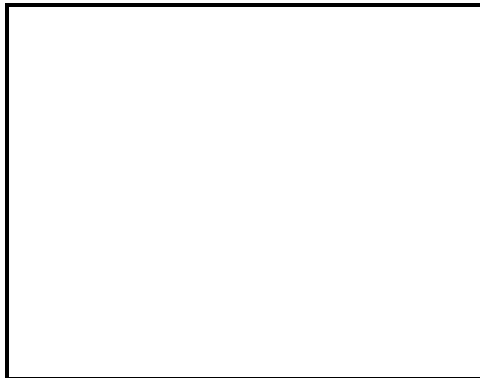
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**HIGHLIGHT: PNE MEDICINAL PLANT PROJECTS**

**CAJAZEIROS:  
MEDICINAL PLANT GARDEN**

Healers and herbalists from the county of Cajazeiros, Paraíba are helping to maintain and pass on the traditional art of healing acquired from their ancestors. Together, with the project team they are recording the indigenous knowledge of cures for specific health problems in the community, such as indigestion, colic, headache, colds, kidney and respiratory complaints. They use tea, syrups and infusions to combat such ailments.

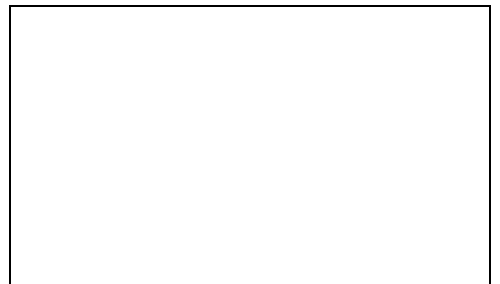
Cajazeiros medicinal plant garden has been established in a relatively small area, given the size of the local community, but it does represent an essential 'first step'. Twelve raised plots, each consisting of seven square meters, contain examples of well known and scientifically tested medicinal plants.



*Prof. Abrão A. da Silva and agronomist in their medicinal plant garden.*

The plots have been built with funds from The Royal Botanic Gardens in conjunction with UFPB (Federal University of Paraíba) Campus V, and the local council. In addition to medicinal plants, they have cultivated other species (of nutritive value) well adapted to local soils.

Costs have been kept to a minimum by use of innovative ideas, cheap materials and local labour. For example, the irrigation system consists of a series of rigid hose pipes with small holes placed along the length to which locally produced spray nozzles have been attached. This simple but effective spray irrigation system was demonstrated to the project team by EMATUR, during a study trip to Pernambuco.



*Example of a spray nozzle outlet.*

**CARIRIS VELHOS:  
MEDICINAL PLANT PROJECT -  
STUDENTS INVOLVEMENT**

Student participation is crucial to the work of Prof. Fátima Agra's project - an ethnobotanical survey of the medicinal plants of Cariris Velhos. One of 12 microregions in the state of Paraíba, originally inhabited by the Cariris Indians, Cariris Velhos is characterised by vegetation adapted to a hot dry climate. There is a predominance of Cactaceae, Bromeliaceae, *Aspidosperma pyrifolium* Mart., *Caesalpinia pyramidalis* Tur. and species of the Mimosaceae family.

Since this project was initiated, Prof. Agra and her team of CNPq supported students - Emerson Rocha, George Sidney Baracho, Evelise Locatelli, Carlos Castro and Silvia Formiga - have collected five hundred plant species within the region. Two hundred and fifty of these are known for their medicinal and/or toxic properties. Working with the Laboratory of Technical Pharmacology (LTF), the project has undertaken some pharmacological screening tests on 18 species to evaluate the activity traditionally attributed to them.

Funding support from The Royal Botanic Gardens, Kew through the PNE programme has enabled the

team to organise a systematic medicinal plant collection for LTF, enhance the JPB herbarium and build a database of ethnomedicinal information on plants of Cariris Velhos.

The project is providing a superb opportunity for students to develop their ethnobotanical and taxonomical skills, thus guaranteeing a valuable human resources skill base for the future. The detailed records being made will ensure the preservation of valuable traditional knowledge, and will provide a source of reference for future studies in the development of natural products, pharmacology, phytochemistry and biotechnology.

**VISITORS**

**TO BRAZIL**

✠ Nicholas Healey, a film/video freelance specialist visited Ceará to produce two educational videos on Prof. F. de Abreu Matos's 'Living Pharmacy' programme in Fortaleza, and Dr. João Ambrósio de Araujo Filho's work on

sustainable management of the caatinga for small farmer livestock production.

✠ Karen Pipe-Wolferstan (PNE General Coordinator U.K.) and Bob

Allkin (IDT Subprogramme coordinator) will return to Brazil for three months from Nov'94 to Jan/Feb'95 to continue their work.

## TO KEW & PNE

✠ Mr. Henrique Brandão Cavalcanti, the Brazilian Minister for the Environment, together with his wife visited Kew Gardens/PNE on the 8th June. They were accompanied by Mr Gary Soares de Lima, the minister-counsellor at the Embassy, Mr. Eduardo dos Santos, and Mr Bruno Bath of the Embassy's Environment and Human Rights Section.

✠ Dr. Adalberto de Paula Barreto, who has been working for six years in a slum of Quatro Varas in Fortaleza, spent one week in Kew/PNE. During this time he gave a talk to the 'Friends of Kew' about his "Living Pharmacy Project" in Quatro Varas/Fortaleza. Whilst he was here, Dr. Barreto and Karen Pipe-Wolferstan examined how he could raise money for his Quatro Varas project, to maintain its infra-structure and financial independence. To this end, he attended a course in "Costing projects to raise more money".

✠ Dr. João Ambrósio de Araujo Filho spent three weeks in RBG Kew/PNE on a working visit. During this time he visited with Karen Pipe-Wolferstan, The Institute of Grassland and Environmental Research, the Natural Resources Institute, IBRA and Bees for Development. He also gave a presentation on his project to the staff of Kew.

✠ The Brazilian Secretary for the Environment paid a one day visit to RBG Kew/PNE. He was accompanied by

## VISITORS

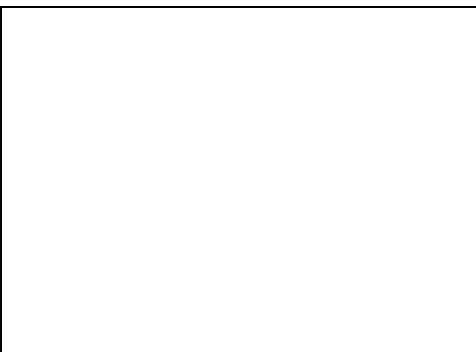
Peter Unwin, Head of Environmental Protection International Division of the Department of the Environment.

✠ José Luciano Santos de Lima from EMBRAPA, Petrolina/PE visited RBG Kew/PNE. He spent much of his time in the Herbarium, and gave a presentation on Cactaceae and Aracaceae in NE Brazil to Kew staff.

## UPDATE

### ✠ PNE Assistant

The PNE (UK) team are delighted to welcome on board Amélia Baracat Doxford, who started her activities as PNE assistant in July'94. Amélia was born in Brazil, but has been living in England since 1984.



*New PNE assistant*

### ✠ Goodbye and Thanks to Vanessa Sequeira.

The PNE (UK) team would like to thank Vanessa very much for her valuable contribution to the programme for the last three years, and wish her the very best in her future forestry studies at Bangor University in Wales.

## NEWS

✠ ROSÂNGELA PEREIRA DE LIMA LEMOS from IMA (Environmental Institute of Alagoas state) spent twelve weeks at RBG Kew. She learnt about the management of the Kew Herbarium and attended various courses and seminars - all relevant to her work in a PNE project documenting medicinal plants of the state of Alagoas, in

## NEWS

NE Brazil. Rosângela particularly enjoyed the 'Plants in Focus' course given by Heather Angel (a renowned plant photographer) and intends to apply many of the photographic techniques that she has learnt to her future work.

Based on the plant identification carried out at Kew, she has started a handbook which will cover the more important medicinal plants of Alagoas. The handbook aims to encourage the use of these plants by local communities in the treatment of disease. The handbook (to be published later), will be one of the products from this PNE project.

Rosangela thanks The Ciba Foundation for enabling her to spend such a profitable time in the UK.

## WHAT IS PNE?

PLANTAS DO NORDESTE (PNE) is a collaborative research programme between the Royal Botanic Gardens, Kew and a number of academic, governmental and non-governmental institutes in Northeast Brazil. PNE is working towards the preservation of biodiversity and the sustainable use of native plant resources for the benefit of local people in Northeast Brazil.

PNE consists of three interlinked Subprogrammes: the **Economic Botany (EB)**, the **Biodiversity (BD)** and the **Information Dissemination & Training (IDT)** Subprogrammes. The Economic Botany and Biodiversity Subprogrammes undertake research on the plants of Northeast Brazil. The Information, Dissemination & Training Subprogramme brings together and disseminates the resulting information so that it can be used effectively in practical ways. It also offers training, that will contribute to improving the sustainable use of plant resources in Northeast Brazil on a long term basis.

PNE raises funds independently to support its activities.

