

The ISHS Coconut Registration Authority*

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Coconut palms are supposed to have a thousand-and-one uses in India and as many uses as there are stars in the sky in Indonesia. They have almost as many names.

Scientifically, there is only one species of coconut (*Cocos nucifera* L.) with two plant habits (tall or dwarf) and three basic color forms (yellow, red and green). But the actual range of intermediate palm habits and colors, exhibit every possible combination. This is particularly so for the size, shape and appearance of the fruits (the hard-shelled, dry, brown nut enclosed in a thick, fibrous, smooth-skinned husk). Attributing the names and the descriptions to inherited genetic traits is extremely difficult. Even if the plant breeding work is done before the palms get too tall, the low number of fruit set per pollination, the twelve months taken before the seed is mature and the five or more years it then takes to bring the next generation into bearing, make it practically impossible to study coconut genetics.

All plants are essential to civilization and none more so than the coconut palm, which has had a long association with mankind. It is important that plants should be named according to a precise, stable and internationally accepted system. The International Code of Botanical Nomenclature governs the use of botanical names in Latin for both wild and cultivated plants. There

is also an International Code of Nomenclature for Cultivated Plants. This aims to promote uniformity, accuracy and stability in the naming of cultivars (varieties). This is done through the establishment of International Registration Authorities under the guidance of the International Society for Horticultural Science (ISHS). There are registration authorities for many ornamental plants and for fruit tree crops, such as mango. Until now there has not been one for any palm genera.

The International Coconut Cultivar Registration Authority has been set up by the appointment of an International Registrar and a work program has been laid down. There are three stages:

- (a) to compile and publish a checklist of coconut cultivars;
- (b) to regularly add to, and amend, the checklist; and
- (c) to offer registration facilities for new cultivars and hybrids.

The ISHS expressed an interest in making a checklist of coconut cultivars in 1973. At that time, when F_1 hybrid coconuts had begun to be produced in commercial quantities, it became important to know all about the hybrids and about their parentage. In 1968 a Coconut Breeders' Consultative Committee had been set up by the Food and Agriculture Organization of the United Nations (FAO), through its Technical Working Party on Coconut Production, Protection & Processing. This *ad hoc* committee proposed the establishment of a Hybrid Register using the recommendations of the International Code of Nomenclature for Cultivated Plants but the

*Since going to press the International Board for Plant Genetic Resources (IBPGR) have held a Coconut Genetic Resources Network steering committee meeting, at which the assistance of ICCRA, and specifically the computer database of coconut cultivars, was made available.

initiative did not survive the closure of the FAO Technical Working Party in 1981.

The International Board for Plant Genetic Resources (IBPGR) began to take an interest in coconut germplasm in 1975 and there have been meetings (sponsored by IBPGR and FAO) in the Philippines (1987) and in Thailand (1988) which have included recommendations for cataloguing and characterizing coconut germplasm collections. The IBPGR Coordinator for South and Southeast Asia is presently planning to establish a coconut germplasm database. National organizations, such as the Philippine Coconut Authority and the Institut de Recherches de Huiles et Oléagineux also maintain coconut germplasm databases. It might be asked whether ICCRA is needed if it merely duplicates the other national and international efforts. That is not the intention.

National organizations that do research into coconut need to keep detailed records of the varieties that grow in their country and of any that are introduced for research purposes. In the same countries there are likely to be variety release committees who have to pass judgement on whether new varieties and hybrids are suitable to be grown by farmers. Because of the long generation time and other delays to successful breeding programs, the release of new coconut varieties tends to be a fairly rare event, so that the existence of coconut cultivar registration authorities will assist variety release panels to make judgements that are consistent to generally accepted standards. ICCRA would not attempt to interfere in these national, statutory, governmental operations. But it would encourage the responsible individuals from those national organizations to appoint one of their members to act as a national registrar, affiliated to the International Registration Authority.

The possibility of a regional or international coconut germplasm database, whether organized by IBPGR or any other agency, does not conflict with ICCRA. In

addition to identifying germplasm resources wherever they occur, the IBPGR has a major role to play in ensuring that these resources are available to future generations. IBPGR is concerned with encouraging national and international efforts to conserve germplasm. Coconut germplasm is under threat of extinction from replanting with superior coconut varieties, or other crops, from removal by logging, from devastation by pests and diseases or from rises in sea level caused by global warming. The IBPGR database organizers might not need to be involved with ICCRA but a checklist of coconut cultivars and information on locations, origins, descriptions and so on, would greatly assist the further development of an IBPGR coconut database. Similarly, coconut research organizations have many objectives competing for first priority and germplasm will have to share attention with other subjects. The information that could be received from ICCRA will allow efforts to be concentrated on other equally important matters, such as improving disease and drought tolerance, and generally bringing coconut cultivation, processing and marketing into the twenty-first century.

The ICCRA approach takes these important criteria into account but also concerns itself with aspects such as the sources used by, and the stocks held in, private and commercial seedgardens and nurseries; the interests of the palm society amateur gardener as well as the professional botanical garden superintendent; the information needs of the high-school teacher as well as those of the university taxonomist. By using commonly available computer hardware and software, listings can be readily exchanged. Information will appear in scientific, technical or popular publications, as appropriate. Above all, by appointing voluntary registrars who will be bound only by their own interest and initiative, ICCRA will be as useful as its contributors care to make it.