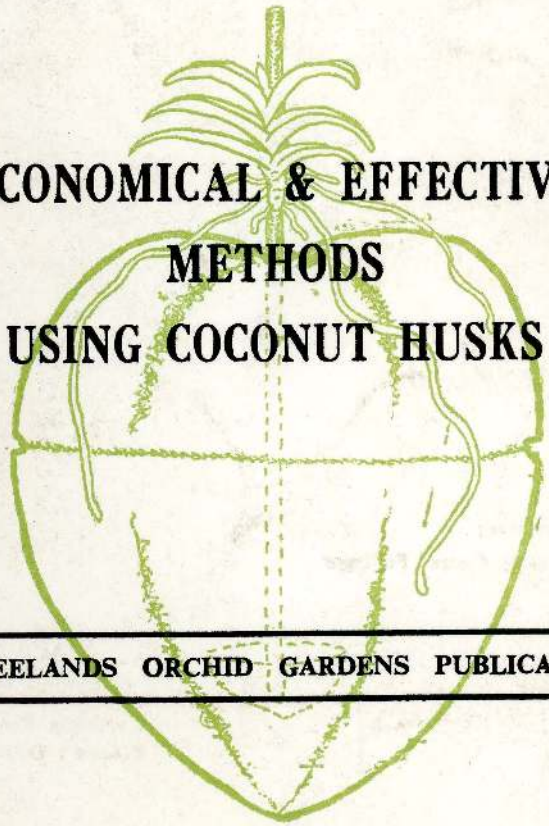
Orchid growing made easy

by

Irwin L. Dassenaike



ECONOMICAL & EFFECTIVE METHODS USING COCONUT HUSKS

A LEELANDS ORCHID GARDENS PUBLICATION

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To the memory of

Mr. R. G. Johnston and Mr. G. A. Andries

who did so much for

Orchid Culture in Sri Lanka

Foreword

Having followed the progress of Mr. Irwin Dassenaike's experiments in growing Orchids on coconut husks and having seen what may be called the finished product of his husk beds at Mirigama, I feel qualified enough to contribute the Foreword to this little booklet which has been dedicated to the memory of Mr. Dick Johnston and Mr. Alfred Andries, two doyens of Orchid culture in Sri Lanka. I am aware that Mr. Dassenaike is completely satisfied with the efficacy of his method and has therefore decided to publish this booklet with a view to giving others the benefit of his experience.

The use of coconut husk as a part of the potting medium or as a receptacle for Orchids is not new but the manner in which Mr. Dassenaike has handled this material is certainly an innovation. His method has many advantages while eliminating dangers usually associated with the use of coconut husk in Orchid culture.

I have seen Ascocendas, Dendrobiums, strap and semi-terete Vandas, Arandas and Cattleyas growing as well as could be expected on the coconut husks prepared by Mr. Dassenaike. The plants become firmly anchored, flower early and prolifically and none of them is leggy—not even the Arandas so notorious for shedding their lower leaves comparatively soon. Perhaps the greatest advantage of the method is that the material is so easily and cheaply available. Add to this the robust growth and the desirable flowering habits of plants grown in this way and you have a method that approaches the ideal.

Mr. Dassenaike has successfully grown his Orchids, most of them from the seedling stage, adopting this method which has now stood the test of time and I commend it to anyone who would care to try—for is not the proof of the pudding in the eating thereof?

V. Weerasinghe

Introduction

This booklet should, in the view of the writer, prove useful to all those interested in orchid culture, be they beginners or old hands at the game, and especially useful to those who have chosen to pursue their hobby on commercial lines.

To the beginner, this method by its very simplicity overcomes the many problems he would otherwise encounter.

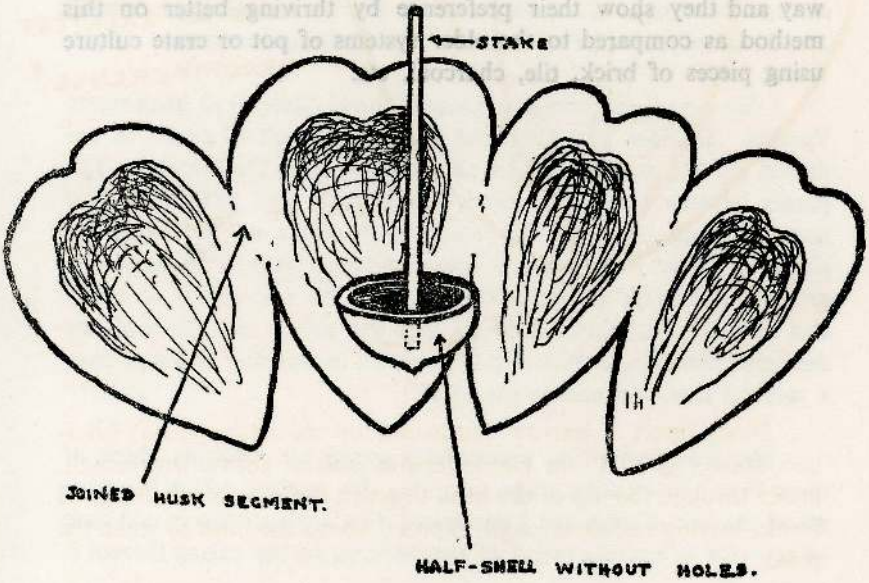
This method of cultivating orchids on coconut husks has been carried out for the past five years and it has not only been found to be extremely satisfactory and successful but also very economical.

All varieties of tropical epiphytic orchids can be grown in this way and they show their preference by thriving better on this method as compared to the older systems of pot or crate culture using pieces of brick, tile, charcoal, etc.

Whole Husk and Shell Method (Figs. 1 & 2)

Any epiphytic orchid plant from the individual seedling stage to adult or top cutting can be grown by this method.

Use a well dried but not old or decaying husk, with all segments attached. Place the lower half of a coconut shell—the half without the 'eyes' or holes—inside and at the bottom of the husk and wrap the segments around it, to appear as a complete coconut. It is preferable to choose a husk with well-fitting segments to prevent pests such as cockroaches, slugs, snails or tree frogs from seeking refuge within.



Make a notch on each of the three vertical ridges on the outside of the husk just above the line of broadest circumference and tie the segments firmly together with wire, rope, gunny string or even with strips of dried plantain bark or fired fresh coconut leaves. Keeping the husk segments firmly in place until the roots bind them together is important, for it helps prevent pests from creeping inside.

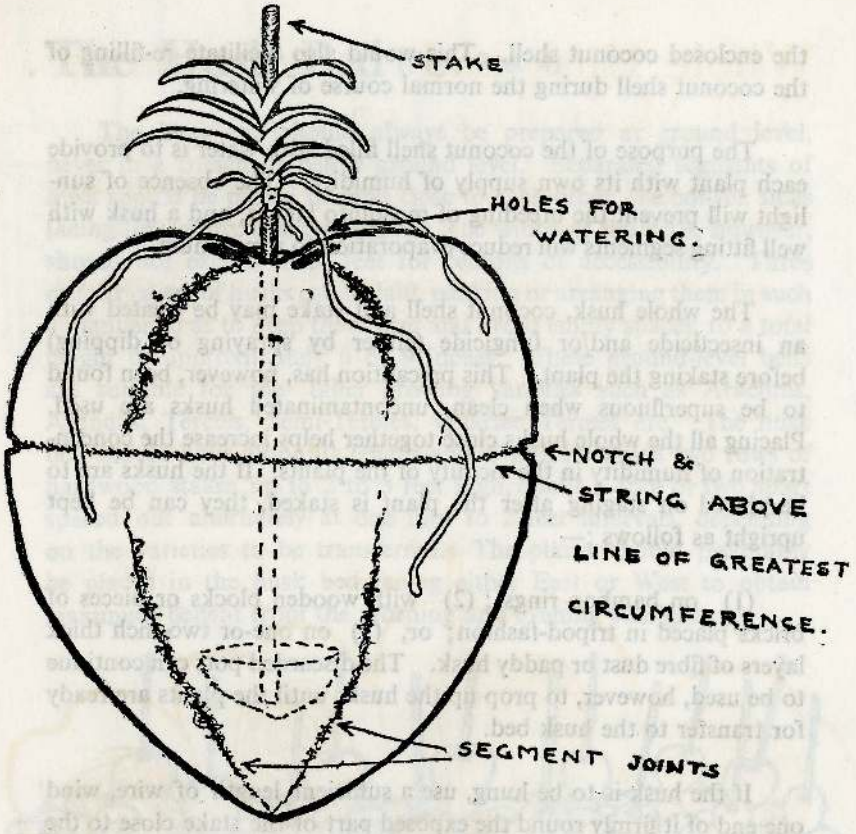


Fig. 2.

Next, insert a narrow hardwood or miniature (bata) bamboo stake, $\frac{1}{2}''$ to $1''$ in circumference and of convenient length, firmly through the top of the husk to reach the coconut shell placed inside, leaving sufficient length exposed above the husk to stake the plant.

Tie the seedling or plant to the stake very carefully and as firmly as possible (at two or more points if necessary) preferably using gunny string; the roots should drape down and around the *outside of the husk*. Ensure that no roots are inside the husk.

Before staking the plant, make a small hole or two in the soft fibrous tissue at the top of the husk and pour sufficient water to fill

the enclosed coconut shell. This would also facilitate re-filling of the coconut shell during the normal course of watering.

The purpose of the coconut shell filled with water is to provide each plant with its own supply of humidity. The absence of sunlight will prevent the breeding of mosquito larvae; and a husk with well fitting segments will reduce evaporation to a minimum.

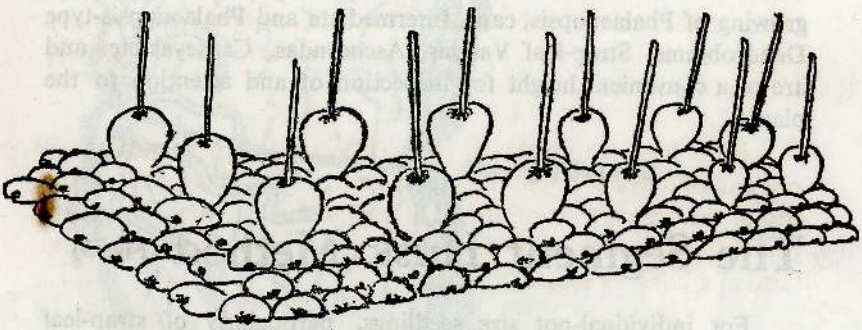
The whole husk, coconut shell and stake may be treated with an insecticide and/or fungicide (either by spraying or dipping) before staking the plant. This precaution has, however, been found to be superfluous when clean, uncontaminated husks are used. Placing all the whole husks close together helps increase the concentration of humidity in the vicinity of the plants. If the husks are to be placed on staging after the plant is staked, they can be kept upright as follows :—

(1) on bamboo rings ; (2) with wooden blocks or pieces of bricks placed in tripod-fashion; or, (3) on one-or two-inch thick layers of fibre dust or paddy husk. The discarded pots can continue to be used, however, to prop up the husks until the plants are ready for transfer to the husk bed.

If the husk is to be hung, use a sufficient length of wire, wind one end of it firmly round the exposed part of the stake close to the top of the husk ; traverse the husk longitudinally, wind once more round the stake below the first winding, and, with the balance wire, fashion a hook or loop as required.

The Husk Bed (Figs. 3 & 4)

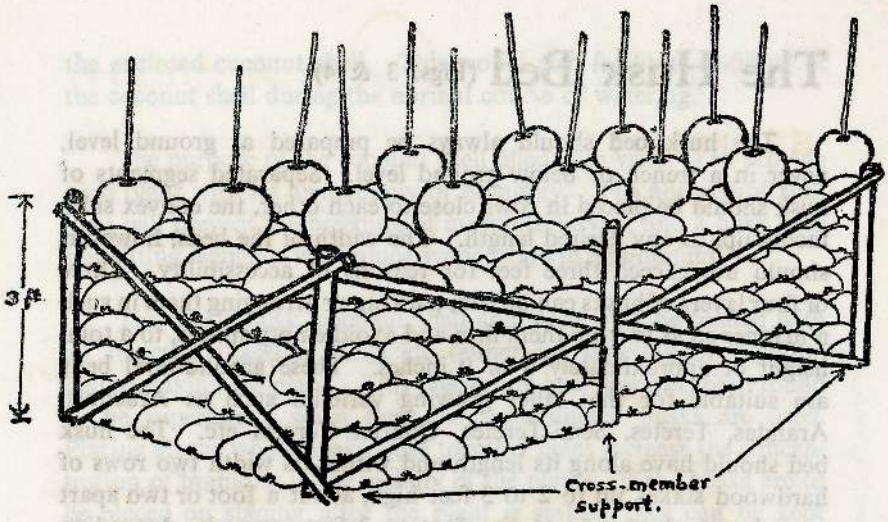
The husk bed should always be prepared at ground level, never in a trench or below ground level. Separated segments of husk should be placed in rows close to each other, the convex sides facing up, to any desired length. The width of the beds, however, should not exceed three feet for reasons of accessibility. Three or four layers of husks can be laid, packing or arranging them in such a manner so as to keep them firm and avoid empty spaces, to a total height of approximately 6 or 9 inches. These ground-level beds are suitable for the taller growing varieties such as Arachnis, Arandas, Teretes, Semi-Teretes, Quarter Teretes etc. The husk bed should have along its length and within its width two rows of hardwood stakes up to 2 to 3 feet high, about a foot or two apart spaced out alternately at one foot to 2 feet intervals, depending on the varieties to be transferred. The plants should preferably be placed in the husk bed facing either East or West to obtain maximum benefit from the morning and evening sunlight.



Ground-level Husk Bed.

The whole husk, with the plant, is now placed and propped-up against the stakes in the husk bed. If necessary another layer of husk segments can be placed around the whole husk, to provide more support.

Beds of about two or three feet in height above ground level can also be constructed in the same way, buttressed by cross-member supports tied or nailed to firm uprights at the corners and on the sides, every six feet or so (Fig. 4). These tall beds are ideal for the



TALL HUSK BED.

Fig. 4.

growing of Phalaenopsis, cane, Intermediate and Phalaenopsis-type Dendrobiums, Strap-leaf Vandas, Ascocendas, Cattleyas etc. and are of a convenient height for inspection of and attention to the plants.

The Segment Husk Method (Fig. 5)

For individual-pot size seedlings, particularly of strap-leaf Vandas, Ascocendas and Phalaenopsis, a broad segment of the coconut husk can be used peeling off most of the smooth outer "skin" to expose the fibrous tissue, but retaining a small area of skin at the top to prevent the wire, used for hanging, from ripping loose. The husk segment, with the seedling tied to about the middle of its *convex surface*, can be floated on water for providing extra humidity to encourage faster growth of new anchorage roots. Once the seedling has established itself, the husk segment should be hung up so that, when watering, a thorough wetting of the *concave surface* is possible. When the plant is about to outgrow the husk segment, it can be tied to a whole husk without disturbing the plant, and either hung up or placed in a husk bed.

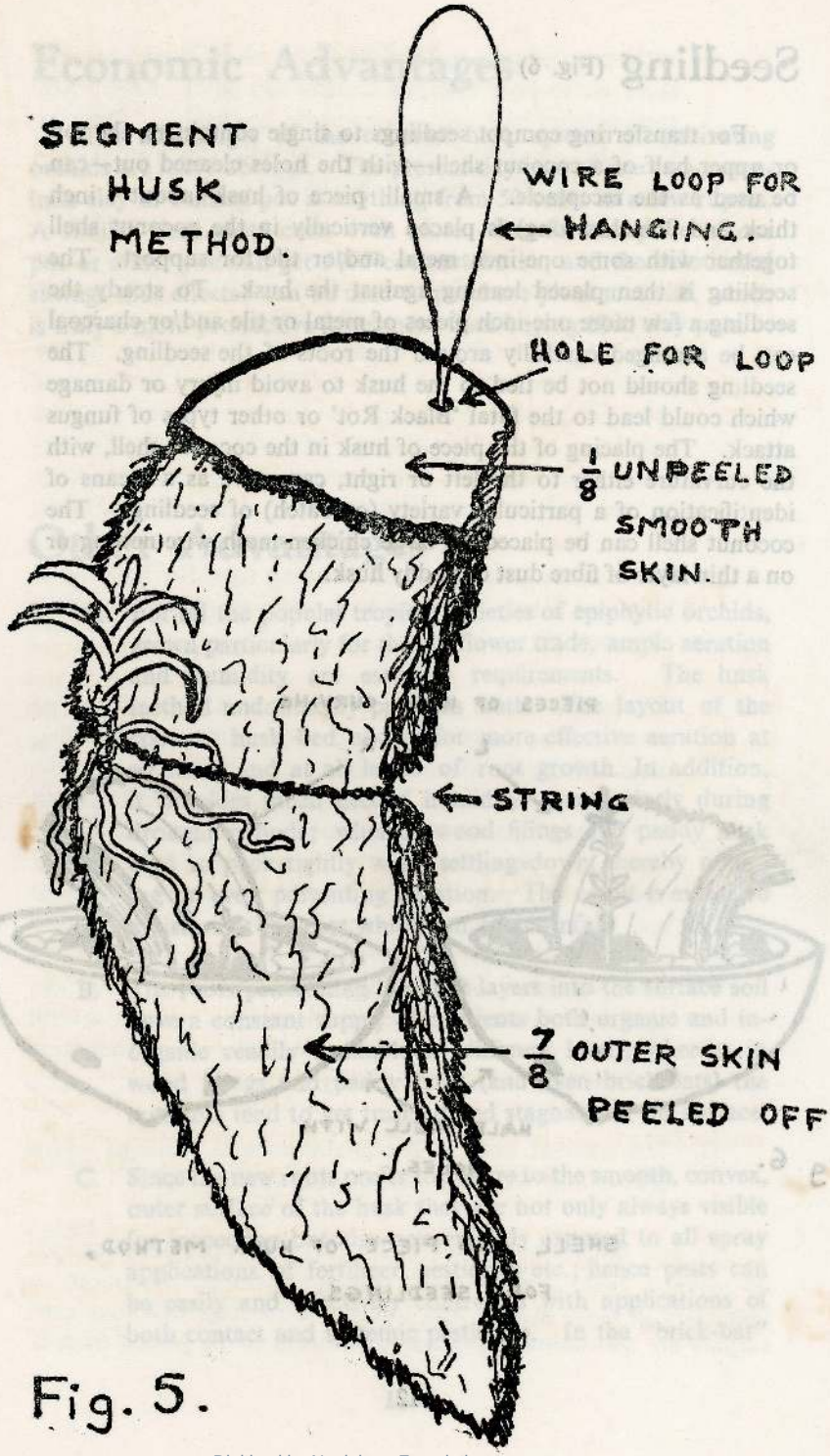


Fig. 5.

Seedling (Fig. 6)

For transferring compot seedlings to single containers, the top or upper half of a coconut shell—with the holes cleaned out—can be used as the receptacle. A small piece of husk (about 1 inch thick and 3 inches long) is placed vertically in the coconut shell together with some one-inch metal and/or tile for support. The seedling is then placed leaning against the husk. To steady the seedling a few more one-inch pieces of metal or tile and/or charcoal can be arranged carefully around the roots of the seedling. The seedling should not be tied to the husk to avoid injury or damage which could lead to the fatal 'Black Rot' or other types of fungus attack. The placing of the piece of husk in the coconut shell, with the curvature either to the left or right, can serve as a means of identification of a particular variety (or batch) of seedlings. The coconut shell can be placed on large chicken-mesh wire-netting or on a thin layer of fibre dust or paddy husk.

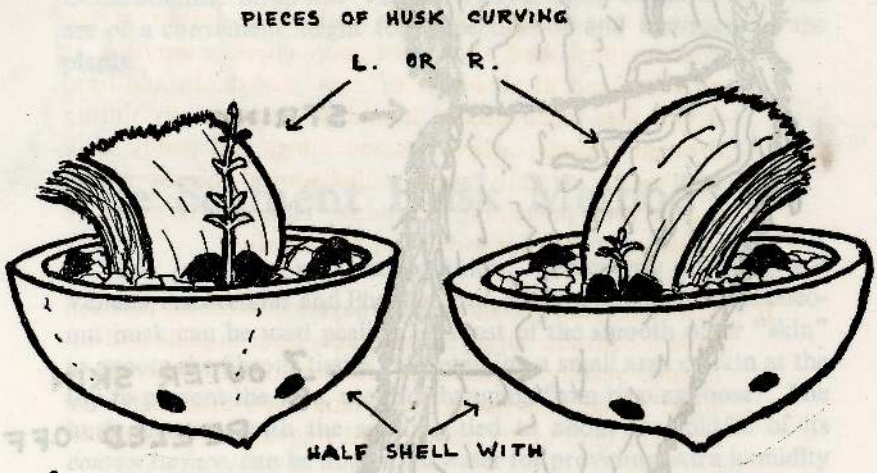


Fig. 6.

SHELL AND PIECE OF HUSK METHOD,
FOR SEEDLINGS.

Economic Advantages

The advantages of the coconut husk system of cultivating orchids are fairly obvious. The present-day cost of one two-to-ten-inch clay or cement pot is anything from 50 cents to a few rupees. A similar sized crate costs even more. But for the price of *one* pot or crate, you can get *1000* coconut husks; and the substantial savings thus effected can be used to purchase plant material, which is truly a more productive investment than buying 1000 clay pots.

Other Advantages

A. For all the popular tropical varieties of epiphytic orchids, grown particularly for the cut flower trade, ample aeration and humidity are essential requirements. The husk method undoubtedly provides both. The layout of the coconut husk bed allows for more effective aeration at all times and at all levels of root growth. In addition, it provides much needed humidity — particularly during drought periods; whereas wood filings and paddy husk tend to pack tightly when settling down, thereby reducing or even preventing aeration. The result is excessive moisture at the root which can be harmful.

B. The roots penetrating the husk layers into the surface soil have a constant supply of nutrients both organic and inorganic readily available at different levels, whereas in wood filings and paddy husk (and even brick-bats) the nutrients tend to get trapped and stagnate on the surface.

C. Since the new roots prefer to adhere to the smooth, convex, outer surface of the husk they are not only always visible for inspection but also conveniently exposed to all spray applications of fertilizer, pesticides etc.; hence pests can be easily and effectively controlled with applications of both contact and systemic pesticides. In the "brick-bat"

in the pot and crate method, however, visibility and accessibility are so poor that pest control can be no more than superficial at best and, consequently, ineffective. Dipping the entire receptacle would be the only effective method but then this is not always practicable.

D. Re-potting at least every two years with pot culture is eliminated, for, unlike in the "brick-bat" and pot or crate methods, no souring takes place because there can be no injurious accumulation of chemical deposits due to the smoother surface of the husk. The husk and husk bed, if correctly constructed, should last for over five years. And even then, as the bottom layer of husk naturally disintergrates with time and subsides into the soil, one has only to "top up", so to speak, with a fresh layer or two of husk.

E. This system greatly reduces planting time for both seedlings and plants compared to the time required for potting or re-potting.

F. The husk bed also promotes effective biological control of pests such as slugs, snails and cockroaches by providing ideal living conditions for the black carnivorous ant, the 'kadiya'. In fact, the 'kadiya' should be enouraged to live among the husk beds by providing them now and then, with a tasty morsel of meat. The resulting advantages far outweigh the only possible disadvantage—the occasional ant bite. But even this unpleasantness can be easily avoided with a little care, for these ants normally display a laudable sense of discipline when on the move—an apparently endless line, single-file or in a column several deep, and close to each other. So if you watch your step, the ants won't need to remind you to !

G. The coconut husk itself contains natural nutrients which are not only beneficial but essential to plant life.

In fact the advantages of this method of cultivating orchids on coconut husks provides such ideal and excellent conditions so conducive to rapid growth and frequent flowering, that they even surpass the substantial economic advantages to be gained from it.

Notes

Notes

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