# SEASON'S NOTES ON COCONUT CULTIVATION NOVEMBER, DECEMBER AND JANUARY IN LANDS UNDER COCONUT

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## Planting of Seedlings

The Maha or the North-East monsoon in October/November is a better planting season for coconuts generally than the Yala or South-West monsoon.

There are two popular methods of planting coconuts namely the square and the triangular system. In the triangular system the seedlings are planted at the corners of an equilateral triangle while in the square system they are planted at the corners of a square. The advantage in the triangular system is that more plants could be planted per acre. The usual planting distance is 26 feet. In any case it should not be under 25 feet.

*Seedling Hole* — On light sandy soils and good average land the dimensions of the hole may not be less than 3′ × 3′ by 3′ deep. On harder soils it is advisable to have the holes larger say 4′ × 4′ by 4′ deep. In cutting the hole the top soil should be separately heaped from the sub-soil. If coconut husks are available it is a good practice to spread one or two layers of husks at the bottom of the hole with their concave sides up. Only the top soil should be used in filling and never the sub-soil. It is also recommended that two kerosene tinfuls of wood ashes or $1\frac{1}{2}$ — 2 lb. of Muriate of Potash be mixed up with the top soil before or after filling the hole. This would be of advantage especially in the case of old lands or where underplanting is done. On very poor soils mixing two basketfuls of well-rotted cattle manure in the planting hole is recommended. In new clearings or virgin land it is sufficient if only top soil is used to fill the holes. In low-lying areas or where the land is water logged husks should not be used in the planting holes.

*Seedlings* — Coconut Seedlings for planting could be obtained from the Planting Officer of this Institute at the subsidised rate of -/30 cts. per plant by applying to him in advance. There are thirteen Coconut Nurseries established by the Coconut Research Institute. These nurseries are situated at Madampe, Kotadeniyawa, Ibbagamuwa, Hettipola, Battulu Oya-Tangalle, Vijithapura, Kilinochchi, Mampuri, Mullaitivu, Chenkalady, Habaraduwa and Hiriwadunna.

When transporting seedlings either by cart or lorry necessary precautions should be taken not to damage them. The seedlings should then be stored carefully in an open hut or else in the shade until they are planted out in the field.

*Planting* — Seedlings are best planted with the rains. The depth of planting a seedling depends on the climatic conditions, soil type and drainage pattern of the land. Under normal conditions the depth should be 1 foot; where the land is water-logged planting should not be more than 6″ below ground level. In the drier parts of Ceylon a depth of 1½ to even 2 feet is not excessive, provided there is no water-logging. Depth of planting is the difference between the ground level and the level of the filled up seed hole, after the soil has settled down. During heavy rain in certain soils there is sometimes the tendency for water, without percolating through, to accumulate in the planting holes. Such water should be removed with a bucket or tin as otherwise the seedlings could die if the water is allowed to remain long.

## Pests

In unprotected lands cattle and goats can become serious pests in young plantations. It is therefore necessary that new or underplantations are properly fenced either by using live fences or better still barbed wire fencing. If barbed wire is used, at least 5 strands should be fixed. The lowest strand should not be more than 9″ from ground level and the strands above this should be not more than 9″ — 12″ apart. It is a good practice to plant fence posts at 8 — 10 feet apart.

Termites (white ants) attack coconut seedlings. They are more commonly found in new clearings. In attacking coconut seedlings, termites enter the plant usually through the husk. As a result the shoot withers and the seedling ultimately dies. It is therefore essential to employ control measures either before or after planting the seedlings. Insecticidal treatment is recommended. Aldrex 2; Aldrin; Cholordox and Intox 8 are generally suitable. They are available from Shell Co., Ltd; Mackwoods Ltd., P.O. Box 91, Colombo; A. Baur & Co., Ltd., P.O. Box 11, Colombo respectively. In applying the prepared solution of the chemical, round the seedling, it is best to use a watering can provided with a 'rose'. Normally the application of 1 gallon of diluted chemical per seedling should be sufficient. The chemical is best applied when there is no rain. The purpose being to have the soil round the seedlings well soaked with the chemical. In addition to the above treatment it is necessary, particularly in termite (white ant) infested areas, that husks are not placed too close to the stem where husk mulching is done round the seedlings.

Another common pest in young coconut plantations is the Rhinoceros or Black Beetle. Therefore it is necessary to engage a beetle catcher to

inspect the plants periodically and look for beetles in them. If a beetle is found it should be extracted by means of a speared hook and the wound treated with light tar or other antiseptic or with an insecticide such as 10 per cent D.D.T.; 6.5 per cent B.H.C. (both are available at I.C.I., Colombo) or Dieldrin (Mackwoods Ltd., Colombo) or Dieldrex extra (Shell Co. Ltd., Colombo).

## Manuring

Fertilizers should be applied during the monsoons. In districts where the South-West or Yala is uncertain it is advisable to manure during the North East or Maha Season in October/November. Annual manuring is recommended in preference to the traditional manuring of once in two years. Methods of manuring coconut plantations are given in Volume 1, No. 1, Page 10 of the *Ceylon Coconut Planters Review* to which you are referred.

Fertilizer at subsidised rates could be obtained from the Commissioner of Coconut Rehabilitation, Millers Building, Colombo, by applying to him in advance. Under this Scheme, Government will meet 1/3 the cost of fertilizer used in the case of lands over 20 acres and ½ the cost of fertilizer used in the case of lands under 20 acres. The Government subsidy is an outright grant and not a repayable loan.

Under the Scheme you may obtain any fertilizer mixture you prefer. The General Coconut Fertilizer Mixture recommended by the Coconut Research Institute could be obtained from any of the fertilizer firms.

Besides artificial manure there is also the locally available materials of manurial value. For instance the use of kitchen or wood ashes combined with cattle or goat manure is strongly recommended as a manure for coconut palms. Half a kerosene (4 gallon size) tinful of ash increasing up to one tin after the fifth year, together with one basketful of well-rotted dung increasing up to four after the fifth year applied annually will be beneficial. Goat manure when applied should preferably be crushed. Further information will be found in Leaflet No. 9 'Locally available materials of manurial value'.

When palms are manured by tethering a pair of cattle for a week it is best to supplement this by adding the following quantities of manure per palm.

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| Muriate of Potash 60 per cent .. | 1 lb. | per palm. |
| Saphos Phosphate .. .. | 1½ lb. | |

If goat manure is used 30 — 40 lb. of goat manure supplemented by a tin of ash or 1 lb. Muriate of Potash and 2 lb. Saphos Phosphate per palm would be a suitable rate of application. Goat manure is sometimes adulterated by adding sand and this can be detected by adding a basketful of

goat manure to a bucket of water, stirring and allowing the sand to settle. A high content of sand shows adulteration.

*Burying Husks* — When husks are buried in the soil their moisture holding properties are extremely valuable in times of drought. Husks are either buried in pits or better in trenches. Burying husks in trenches along rows of palms is increasingly adopted in estates and is recommended.

The trenches are alternately arranged along the rows against the slope of the land, the dimensions being 10 feet long, 4 feet broad and 1½ feet deep. A depth of 1½ feet is considered sufficient, as the advantages of the use of deeper pits are not commensurate with the extra expense involved. Husks are buried layer by layer, each layer of husks being covered by a layer of earth. The pit is filled so that the last layer is flush with the level of the ground and the balance of earth is mounded on top. In the cycle of cultivation, when husks have to be buried again in the same field, trenches can be dug in the alternate position.

If you desire to have any advise on any of the above operations, or a demonstration of lining for planting, or tracing for contour drains please contact the Advisory Field Officer of your area (a list of their names and addresses is given elsewhere in this Journal), or write direct to the Advisory Division, Coconut Research Institute, Lunuwila.

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