TARO PLANTING

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Introduction

Taro (*Colocasia esculenta*) originates from Southeast Asia and belongs to the family Araceae. There are many types of taro in this country, varying in flesh colour from white, light red or yellow and in petiole colour ranging from green, purplish brown to dark brown.

Taro can be grown as monocrop and also as an intercrop. It can be planted in interrows of coconut, pepper and rubber, when the main crops are still in early stage of growth. Taro grows to a height of 0.4m to 2.0m and its corms (tubers) can reach up to 15cm in diameter. Stolons or suckers are usually found growing around the main stem. The leaves are heart-shaped. The crop can be grown in low lying areas as well as in upland areas.

Types of Taro

Various types of taro can be found in Sarawak; these include 'Wangi', 'Udang', 'Kebuk', 'Kapas', 'Bugis', 'Lilin' and 'Kuning'. The common varieties grown and sold by farmers are 'Thailand' and 'Pinang" or 'Cina'. These varieties produce large tubers and the leaves and petioles can also be eaten. For other taro varieties such as 'Keladi Air', 'Keladi Manis' and 'Keladi Birah', only the leaves and petioles are edible.

Taro 'Thailand' Variety

Results from research conducted by the Department of Agriculture Sarawak has found that the 'Thailand' variety can produce 26.0 mt/ha of fresh tubers when harvested at the age of 12 months after planting. This variety can reach a height of 0.6-1.0 m. The flesh colour is whitish light yellow and the starch content is about 65% of the dry weight. The tubers can be processed into taro chips and for this purpose, the plants are harvested when they are 9-10 months old.

Climate and Soil Requirement

Taro needs a hot and humid condition with temperatures above 21^{o}C. The crop requires an annual rainfall of approximately 250cm. It can be planted in upland areas with an rainfall of 175cm provided the rainfall is evenly spread throughout the growing season. Irrigation is required if the plants are planted in areas that receive less than 175cm rainfall per year.

Taro can be planted in most types of soil, but for good growth it is preferably be planted on deep, well-drained, friable loamy soils rich in organic matter.

Preparation of Planting Material

Cutting from mother plant tuber and suckers can be used as planting materials. Cuttings of tuber can be planted in the nursery before planting in the field. Once the petiole reach a height of about 20 -30 cm it can be transferred to the field. For planting material from tubers, about 2 to 5 tonnes per hectare tubers are needed.

Suckers with more or less the same height, derived from taro clumps can be planted directly into the field. To prevent sucker decay or rot and experiencing high evaporation leaves should be cut before planting. Suckers can be obtained from the mother plant when their reaches the age of 6 to 8 months after planting.

Site Preparation

Selected sites are cleared of vegetation using herbicides or slash and burn. Machinery can also be used for plowing. Our aim in making beds or tilling the soil is to make soil friable so that to ease the formation of tuber .

Planting

The suckers are planted to the prepared beds by first digging small holes of 5-7 cm deep each then putting in the suckers and covering them with soil. The rows may be 90-120 cm apart with between plants spacing of 30-45 cm on raised beds. Before planting taro leaves should be cut to reduce evaporation and also to prevent decay or rot.

As the taro plant grows, the older leaves will fall and the corm increases in size. From time to time, the soil surrounding the plant should be raised to cover the exposed tubers. Suckers produced by the main stem should be removed to avoid competition for nutrients, thus ensuring the .

Weed Control

Control of weeds is very important, especially during the first 3 months after planting. Usually weed control is done manually. To prevent serious growth of weeds, spraying using pre-emergent weedicide can be done before planting. Pre-emergent herbicides such as Diuron can be used at a rate of about 4 kg / ha.

Fertilizer Application

Taro responds well to application of fertilisers. Fertilizer of composition 15:15:15 or 12:12:17:2 is applied at 30g per point during planting and another 30g at 3-4 months later. If the growth is still not so good additional fertilizer is necessary. Irrigation is also necessary to enhance yield.

Harvesting

Taro can be harvested at 7-12 months after planting depending on the variety. The 'Thailand' variety it can be harvested 7-8 months after planting. As mature tubers are fully formed, they may be harvested either by pulling or digging up with a hoe. The top part of the leaves are removed by cutting to expose the corms.

A monocrop taro farm

Taro intercropped with young oil palm

Taro planting in between immature pepper vines

‘Thailand’ variety of taro

Mature corms of ‘Thailand’ taro

‘Thailand’ Variety taro chips

Taro suckers for planting material

Planting of taro suckers on prepared beds