

PLANTING OF LARGE BAMBOOS 'BANS' BY THE TRADITIONAL
METHOD

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The traditional technique for planting large bamboos of the genera Dendrocalamus and Bambusa, celled Bans, is very well known in the east of Nepal, but some uncertainty has been expressed concerning the correct planting technique in other areas of the country where bamboos are not so abundant.

Local knowledge in the east suggests that for most species it is only the buds on the rhizome (the large underground portion which bears the roots) which can produce the roots and strong shoots necessary for successful establishment. Use of poles without rhizome is rarely successful. This is probably because of the dry spring in Nepal. For successful propagation of bamboos the material must be planted just before the buds on it would have started to grow while on the parent plant. Branch buds on the poles of Nepalese bamboos grow from March onwards while buds on rhizomes grow much later, in June or in the rainy months that follow. As the rainfall is low in the spring months shoots from buds on poles usually die before they can root. Shoots from buds on the rhizome however emerge as the monsoon is starting and can root easily in the following months.

For this reason attention should be paid to the proper preparation of the planting material, ensuring that there is enough rhizome present, and that the buds on the rhizome are in good condition. Timing of the planting operation is also very important. It must be before the buds have developed into young shoots which will break off or be damaged, but it must not be too early or else the buds will dry out and die before the rain comes. The end of May to early June is the usual time for planting in the east at 1,500 m, when the heavy pre-monsoon showers start.

Shoots may not develop from the rhizome buds in the first year and the ones which do will be of limited size, This means that the rhizome may be subjected to a long period before new shoots provide it with nutrition and water. If the pole can grow a few leafy branches the rhizome will be maintained in a much more healthy state and the new shoots from it will be more vigorous. A pole of more than 1.5 m will have several branch buds in most species, which can provide the necessary leafy branches and some leaves at least will be cut of the reach of grazing animals. If the pole is more than about 2.5 m however it will be liable to move in the wind and this will damage new roots.

To prepare planting material a young pole which grew the year before is selected, It is cut above head height and the soil around the base is cleared away so that the rhizome can be seen, The rhizome is cut at the tough neck where it branched out from its mother rhizome the year before, In this way the entire rhizome is used, Cutting the rhizome half-way along its length can result in rotting of the soft tissues where it is cut and damage to the buds, Using only half the rhizome reduces the number of

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buds from which new shoots can grow and reduces the amount of reserve tissues available to make the shoots grow vigorously, The rhizome can be dug and levered out of the ground without damaging the buds and retaining a large number of roots, especially if a pole is selected from the outside of the clump, where excavation of the rhizome is much easier.

The complete 'offset cutting' should look like figure 1. If it cannot be planted immediately it should be kept out of the sun and the roots should be kept wet.

As stability is essential for the growth of new roots the rhizome should be planted deep enough for the earth to support the pole and the ground must be well stamped down around it, If the pole can be leant against a bank or tree it will be more stable, but this may allow animals to browse the leaves. If it is very dry after planting watering is very beneficial if possible.

When new shoots appear they should be protected and no poles or foliage should be cut until the clump has established itself properly and is producing full-sized poles. If the planting is done correctly this can be expected within 6 or 7 years.

The most common faults in planting are using only a portion of the rhizome and using a rhizome which is too old or has damaged buds. Such plants often die or else send up small thin poorly-rooted shoots from the buds on the pole above the rhizome which take much longer to establish themselves and are susceptible to grazing.

The distribution of bamboos is related to rainfall, In the east and in the Pokhara areas there are more species and more clumps. In other drier areas several species cannot survive, but some are capable of surviving droughts once they have been established. It is hoped that by improving the planting technique the numbers of bamboos can be increased in drier areas. There is also room for improvement in the east where success rates are often only about 50% due largely to poor material selection and planting technique.

