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WHAT TO DO UNTIL THE SHADE ARRIVES[1]

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Abstract. **Most studies of the contribution of landscaping to comfort and energy savings in Florida homes give suggestions based on the placement of mature plant material. In a new garden there is rarely the opportunity to work with this size plant but there are other strategies which use the same principles to give shade or channel breezes. Faster ways of achieving shade using materials suited to the Florida landscape are described.**

Well-placed shade trees can play an important role in moderating the climate around buildings. A house built on a wooded lot will be much easier to cool in summer, and even a single large tree left in place during construction will have a strong influence on part of the lot. The difference in temperature between shaded and sun-drenched surfaces is well documented (1, 3, 4, 5, 6), and it is obvious that intercepting the energy of sunlight will reduce heat build-up in the shaded area.

Suppose, though, that the house is built on a bare lot—probably the commonest situation in much of Florida. The Cooperative Extension Service can advise on planting trees to get the maximum benefit for almost any situation, and has publications that specify for each region of Florida what shape and size of tree, placed in just what position will shade any given spot at a specified time of day at a particular season of the year (2). However, even with unlimited funds available, the size tree that can be moved in successfully is probably not going to be able to perform to those full specifications immediately. The typical landscaper will use trees small enough to be handled without machinery. Since most of the trees that are desirable for use around the house are relatively slow-growing even homeowners who have done everything right in terms of tree selection and placement may face a few years of scorching sun before they can get the benefit of the tree's shade.

Alternative ways of geting shade quickly are needed, and fortunately there are a number of good possibilities. Some of these are temporary measures and some may be permanent alternatives to depending on trees alone for shading.

One possibility, which may be a temporary or a permanent solution, is to plant a grove of trees close together rather than a single specimen. Most trees make height much faster than width—the specimen tree will get taller faster than it will form its full canopy and only gain its full spread as it matures. Planting several of the same species allows each tree to grow tall while the whole group together takes on the spread of a single more mature tree. In nature this grouping of a single species is very common and can give a very pleasing effect. It may also be possible to use trees of a lower grade and price than would be wise for the single specimen. The trees may even grow faster since each one benefits from the shade of the others.

Another possibility is again modeled on a situation found in nature where a disturbed site in a forested area is often invaded first by "weed" trees. Slower-growing, more desirable trees grow up in the shade of these and eventually take over the site. In the garden, a desirable but slow-growing tree would be planted exactly where it is called for by consideration of the shade pattern needed. A grove of faster growing trees would then be planted around it to give shade quickly. These trees would shade and cool the root zone of the slow-growing tree but the tops would be thinned to avoid excessive crowding and competition, and would be removed completely when the desirable tree had reached a large enough size. The trees that can be used as "nurse" trees in this way are the fastest growing species available which are often thought of as weeds in the landscape: *Albizia lebbek* (L.) Benth., the Woman's Tongue, would do the job very well, as would *Muntingia calabura* L., the Strawberry Tree, or even seedling avocados. *Schinus terebinthifolius* Raddi, Brazilian pepper, would be ideal but is definitely a weed, and, by law, may not be planted or allowed to grow in a number of communities. *Tecoma* stans (L.) HBK., the yellow elder, is another good choice, but is such an asset to the garden with its golden blooms that it will be difficult to make the decision to remove it to make way for the permanent tree.

The need to supply shade is only one of the many factors in a landscape design. If it is allowed to override all other considerations in the placement of trees there may be unfortunate results. Some options for intercepting the sun avoid the use of trees altogether, and may be good choices where trees could be a hazard in high winds, or where their roots might cause problems to drain fields or to structures. If it is only a window that is to be shaded there are a number of types of awning on the market that are effective against light from a high angle. Bahama shutters or other louvered covers keep out all direct radiation while still allowing some reflected light to enter. Walls may be shielded with a trellis or with an overhead lattice which is also a good solution for a patio. These structures involve an initial expense and periodic maintenance, but can place shade very precisely. They may also shade an area for a much longer time than all but the largest trees since the structure is sited close to the area targeted for shade. These structures may be supplemented by the use of vines or espaliered trees. Some seasonal change is possible in this case by choosing plant material which dies or loses its leaves in the winter when shading is no longer required.

Where the landscape plan, based on all considerations of a family's needs, can place trees in the correct place, and when the trees have grown to the required size, there is no more pleasing solution to the problem of how to bring shade to house and garden. It is a mistake, though, to think that using specimen trees is the only way to get the needed shade. As always the best solutions come from a consideration of all design possibilities.

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