

TECHIE TIPS

This month I thought I would look at **preventable defects** in the timber we store. Firstly, a quick **overview** of how we get the timber we use.

Timber comes either from old growth forests or renewable plantations and all are subject to yearly climate variations as they grow. Most of you will know about the 'growth rings' visible on the end grain but are you aware that the climate history

during the growth period is also recorded by the width between the rings? Generally, the closer the rings: the drier the season, the wider the rings: the wetter the season, but with a caveat. Plantation-grown timber is watered to achieve maximum growth to a commercial size in the quickest time. The end grain of plantation-grown timber generally shows a wider uniformity in the spacing. Typically, this is the case with the pine we purchase.

Once logged, a tree is taken to a saw mill to be cut to shapes and sizes suitable for making the finished wood products. Between the milling and making stages the timber must be processed to reduce the **moisture content** to a stable level. When it is growing, a tree takes up water to assist its growth. To make it usable, this 'green' timber must be dried until the water content reaches a stage of equilibrium with surrounding atmosphere (called **seasoning**). If you aren't in a hurry you can use **air drying** by leaving the green timber stacked under cover in the open air. This is the traditional method.

Because we are mostly in a hurry to market the finished product (and make our profit), a process called **kiln drying** is used to speed everything up. Either way, the timber we buy from the timber merchant is at equilibrium (seasoned).

Now to preventable defects.

A **defect** is taken to be any irregularity occurring in or on the **timber** which may affect its utility value or diminish its appearance. Preventable defects (as distinct from defects like fungal attack) can occur due to poor storage practices. They are typically in the form of





is a propeller shape



depression across the

Timber should be stored flat on a shelf with the longest lengths at the bottom. Access should preferably be from the end. Different sizes should have vertical dividers.



Bows and **twists** are caused by sloppy storage-it's that simple. Look at the differences here.

The photo on the **left** shows timber has been **stacked evenly** and repacked after a piece has been accessed. The photo on the **right** shows timber in mixed sizes and **stored haphazardly**.

It is pretty easy to see how **stresses can be induced** in the timber on the right and it is surprising how quickly serviceable timber can be made unserviceable.





Cupping occurs when timber with rainbow-shaped growth rings seen on the end grain **becomes too dry** and shrinkage is greater across the milled surface than across growth rings. Keeping this sort of timber away from excessive heat should help maintain flatness until you need it.

BOTTOM LINE: If you don't want to waste \$\$\$, then pay attention to how you store your timber.