

You will note that in spite of my emphasis of matching the strength of each unit in the support system whether a cable, bolt, or steel pipe seldom are the matchings entirely correct even when the strength and/or holding power of the materials are known. For instance, we are limited in sizes of lags, and even if the sizes were available, different manufacturers cut the thread to a varying degree of depth thus varying the tensile strength or degree of sharpness which influences their holding power. Another fault in the system is when lag threads extend level with the end of the hook of a "J" lag. Such a lag tends to crystalize and break at the threads where they enter the wood if there is sway. A further problem has arisen—namely that 3/4-inch "J" lags appear to be no longer available. They were not an ideal match with 1/2-inch cable but were the only alternative to specially-made 3/4-inch eyelags. I know that 1/2-inch cable is seldom used, particularly in the East,

but we have found a use for it in California when guying or supporting particularly heavy trunks and it does give a margin of safety above that of 3/8-inch cables.

Finally, for those of you who act as consultants, may I strongly advise that your cabling specifications be detailed and thorough for it is only by precise specifications coupled with a careful inspection on the completion of the contract that uniform good work is obtained. Not only are specifications no better than the ultimate inspection but for those of you whose duty it is to invite contractors to bid on tree work, those firms which have high standards will be so discouraged when they see the winner get away with poor quality of workmanship that they may tend in the end to ignore invitations to bid.

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ABSTRACT

Davies, W. J. and T. T. Kozlowski. 1974. **Stomatal responses of five woody angiosperms to light intensity and humidity.** *Can. J. Bot.* 52: 1525-1534.

Stomatal responses to changes in light intensity and humidity were studied in green and chlorotic *Fraxinus americana*, *Acer saccharum*, *Quercus macrocarpa*, *Citrus mitis*, and *Cercis canadensis* seedlings. Stomata opened and closed faster in green than in chlorotic plants. Stomatal opening in chlorotic plants was faster in *Acer* than in other species, where stomata opened to equilibrium in about the same time. With changes in humidity from 20% to 80%, and the reverse, stomata of *Fraxinus* and *Acer* opened faster than they closed. Stomatal resistance was affected more by humidity changes at low light intensity than at high intensity. Postillumination CO₂ bursts from leaves occurred in all species and were greater in green than in chlorotic plants. Physiological responses of stomata are discussed in relation to leaf anatomy and metabolism.

Les auteurs ont étudié les réactions des stomates à des changements d'intensité lumineuse et d'humidité relative chez des plantules vertes et chlorosées de *Fraxinus americana*, *Acer saccharum*, *Quercus macrocarpa*, *Citrus mitis*, et *Cercis canadensis*. Lest stomates s'ouvraient et se fermaient plus rapidement chez les plantes vertes que chez les plantes chlorosées. L'ouverture des stomates chez les plantes chlorotiques était plus rapide chez *Acer* que chez les autres espèces, ou l'ouverture des stomates prenait le même temps pour atteindre l'équilibre. A la suite de changements dans l'humidité relative de 20 à 80% et vice versa, les stomates de *Fraxinus* et d'*Acer* s'ouvraient plus rapidement qu'ils ne se fermaient. La résistance des stomates fut plus fortement affectée par des changements d'humidité à faible intensité lumineuse qu'à haute intensité. L'émission subite de CO₂ par les feuilles après illumination a eu lieu chez toutes les espèces et était plus importante chez les plantes vertes que chez les plantes chlorosées. Les auteurs discutent les réactions physiologiques des stomates en relation avec l'anatomie et le métabolisme des feuilles.