Seasonal variation of cambial activity n branches of *Pterocarpus macrocarpus* Kurz, *Shorea roxburghii* G. Don, and *Dipterocarpus intricatus* Dyer in dry dipterocarp forest.

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ABSTRACT

The seasonal variation of cambial activity in branches of *Pterocarpus macrocarpus* Kurz, *Shorea roxburghii* G. Don, and *Dipterocarpus intricatus* Dyer, which are the deciduous tree species, was studied and related to some environmental factors and phenology. The methods were carried out by radomly choosing of ten individual trees of each species in dry dipterocarp forest of Sakaerat Environment Research Station, Amphur Pakthongchai, Nakhonratchasima province. From January to December 1980, monthly interval collections of three branches from individual tree of each species were carried out within the first week of every month. Each branch was tranversely sectioned at the fourth internode by sliding microtome and then was processed to obtain the permanent slides. Meteorological data were obtained from Sakaerat Environment Research Station. Soil-surface samples were also taken for determination of moisture content. The phenology of each tree species was also observed.

With the photomicroscope, cambial activity was determined by numbering the layers of fascicular zone. It was found that the seasonal variation of cambial activity of the species studied is significantly shown. The degrees of variation are depended on the species. Cambial activity is increased from March to May in *P. macrocarpus*, from April to August in *S. roxburghii*, and from April to November in *D. intricatus*. After reaching the peak, the cambial activity of each species is gradually declined. No obvious relationship is found between the cambial activity of each tree species and the environmental factors, such as amount of rainfall, relative humidity of the atmosphere, air temperature and soil moisture. The cambial activity of the tree species appears to relate to their phenologic events. The activity is initiated by the new leaf formation and gradually increased with the degree of leaf development. After leaf maturity, the cambial activity of each species is gradually declined.