

THE STUDY ON GROWTH OF THREE KINDS OF FAST GROWING
SPECIES UNTIL THE AGE OF 47 MONTHS IN THEIR PURE AND
MIXED STANDS, AT RIAM KIWA SOUTH KALIMANTAN

By :

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ABSTRACT

The three kinds of fast growing species were *Acacia mangium* Willd, *Gmelina arborea* Roxb, and *Paraserianthes falcataria* (L) Nielsen. The mixed stands were established by planting two of three fast growing with proportion of 50 % : 50 %, while the spacing was 2m x 4 m. In this research the randomised completely block design was used.

The measurements were conducted at the age of 3, 11, 23, 35 and 47 months. The observed parameters included survival, height, diameter of breast height and crown diameter.

The result showed that the growth of *A. mangium* in mixed *A. mangium* x *G. arborea*, at the age of 47 months, were 14 % higher 25 % bigger in dbh and 34 % wider in crown diameter than in pure stand. *G. arborea* in mixed *G. arborea* x *A. mangium* reached 51 % higher, 46 % bigger in dbh and 28 % wider in crown diameter than in pure stand. The result also showed that *P. falcataria* in mixed *P. falcataria* x *A. mangium* reached 43 % higher, 10 % bigger in dbh and 12 % wider in crown diameter than in pure stand.

The continuations of silvicultural research are needed ultimately to the mixed stand of *G. arborea* x *A. mangium* because it is a promising one.

