Graham stylo – Rice Interrow cropping in Upland

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Abstract

Plant density and time of sowing Graham stylo interrow with upland rice was studied, to analyse the growth of both rice and legume, rice grain and its components.

An increase in legume density from 1 to 16, 32 and 64 plants/m² resulted in a highly significant increase in dry matter yield of legume by 18, 31 and 45 times. Actual yields were 12.36 to 228.45, 384.52 and 554.65 kg/rai respectively. Forage dry matter yields increased from 398.45 to 568.06, 684.49 and 846.98 kg/rai or in terms of crude protein yields from 32.28 to 55.08, 79.07 and 95.90 kg/rai respectively. Delayed sowing of the legume for 7 and 14 days resulted in legume dry matter yield decreased of 7 and 34.58 percents, respectively.

On the other hand, increasing Graham stylo from 1 to 16, 32 and 64 plants/m² caused a reduction in vegetative rice dry matter yields by 14.77, 24.72 and 26.63 percents or in other word from 398.45 to 339.61, 299.97 and 292.33 kg/rai respectively. It also caused a reduction in rice

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grain yields by 9.93, 18.82 and 26.58 percents or yield reductions from 153.76 to 138.49, 124.83 and 112.89 kg/rai respectively. Yield components most affected were the number of tillers and the number of panicles both being reduced. Delayed sowing of the legume had no effect on rice growth or yield.