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Mass Loss and Nutrient Dynamics during Wood Decomposition

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Mass loss and nutrient dynamics during wood decomposition were studied for three and half years, from March 1993 to September 1996, in Kongju, Chungnam Province, Korea. Trunks of *Quercus acutissima* and *Pinus densiflora* were cut into pices, 15 cm long and diameter of 10-15 cm. Aluminum tags were attached to every block of trunk giving the fresh weight of the block. In laboratory, we calculated dry weight of each block. In March 1993, thirty blocks of trunk in each of *Q. acutissima* and *P. densiflora* were scattered on forest floor in oak stand and pine stand, respectively. Two samples of each species were retrieved after 1, 3, 6, 12, 18, 24, 30, 36 and 41 months in each site. After 36 months elapsed, oak and pine wood lost 65 % and 60 % of the initial mass, respectively. N and P concentrations in decomposing oak and pine wood decreased during first year and then increased. K decreased sharply within first year in both species. Ca and Mg showed no significant pattern during wood decomposition.

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Compare the soil chemical properties of arable land with the forest soil

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This study was performed to obtain the basic information on the soil chemical properties of arable land (vinyl-house, rice-paddy, crop-land) as compared with forest soil at Heongsung-gun area in Kangwon province. The chemical properties of arable land soil were characterized by very high content than that of experimented soils. Also, extraordinary, the content of high available phosphorus were observed in vinyl-house that of the other arable land and forest soil. And, the content of exchangeable base in vinyl-house soil was the highest level and followed by rice paddy, cropland and the lowest content was that of forest soil.