

ABSTRACT

This study aims to survey the needs and selection of tree species suitable in the reforestation trial for local farmers, under the Royal Initiative of His Majesty the King “ three types of forest plantation for four beneficiaries” on the land areas with different heights from the sea level and to test the seeds of some tree species planted in these areas. The target areas were the areas of the royal project located in Chiang Mai province and were selected in three different height which were low elevation highland (500-800 meters) medium elevation highland (800-1100 m) and high elevation highland (over 1100 meters). The experiment was performed in three areas each with the total of 9 areas. Data collection was performed by randomly selecting 391 households, tree species surveying in community forest following on forest routes in all 3 different areas, brainstorming and trees selecting with villager representatives and seed testing of some tree species which will be test planted. The results suggested that in the selection of the suitable tree species for plant testing in village’s woodlot, firewood and household-use trees should be more focused than edible trees. However, the edible trees should be high demand, especially trees that have more than two benefits. In summary, there are eight tree species that have potential to be test planted, which are *Paramichelia baillonii*, *Castanopsis acuminatissima*, *Xylia xylocarpa*, *Phyllanthus emblica*, *Betula alnoides*, *Schima wallichii*, *Duabanga grandiflora* and *Zanthoxylum limonella*. In each height level area, tree species suited to the local area condition and met community needs should be chosen. In seed testing, seeds of *Xylia xylocarpa* showed high viability and easy to germinate. This has the potential to promote the production of seedlings planted in the following areas.