ABSTRACT

Limited space is a concern in optimizing pekarangan. The research objectives were to identify characteristics of tropical lowland urban pekarangan, to know the cultivation techniques in the pekarangan, and to select the types of plants that have the potential to be cultivated in the pekarangan. The research was carried out in Kampong Karangbendo, Kocoran Hamlet, Caturtunggal Urban Village, Depok Sub-district, Sleman District, Special Region of Yogyakarta. This study used a survey method with a sample of house groups selected by purposive sampling, based on five categories pekarangan, namely 1) very a small pekarangan (<20 m^2), 2) a small pekarangan (20-50 m^2), 3) a medium pekarangan (50-100 m^2), 4) a large pekarangan (100-200 m^2), and 5) very a large pekarangan (>200m^2).

The results of this study indicate that the characteristics of urban pekarangan in the study location have sunlight intensity ranges from 2238.21 lux - 56574,13 lux, air humidity ranges from 64.29% - 70.16%, air temperatures ranges from 29.34^{o}C - 29.9^{o}C, and wind speed ranges from 0.2-0.6 m/s and dominated by front zoning, very a small pekarangan (0-20m^2), plant strata under one meter, and ornamental plants. Cultivation models that can be applied in lowland of urban pekarangan are adapted to the conditions of the pekarangan area. Very small pekarangan using cultivation techniques of verticulture, planting in polybags, and fruit plants in pots (tabulampot). Small pekarangan applied a cultivation model in the form of verticulture, planting in polybags, tabulampot, and planting directly on the ground. Medium pekarangan and large pekarangan applied a cultivation model in the form direct planting in the ground. The type of plant emphasized the dominance and number of vegetable plants and was adjusted based on the size of pekarangan. Very small pekarangan is planted by kale (Ipomea Reptans Poir), spinach (Amaranthus tricolor), mustard green (Brassica juncea), red chilies (Capsicum annuum), cayenne pepper (Capsicum frutescens), eggplant (Solanum melongena), tomatoes (Solanum lycopersicum), basil (Ocimum sanctum), ginger (Zingiber officinale), turmeric (Curcuma longa), galangal (Kaempferia galanga), water guava (Syzygium aqueum), mango (Mangifera indica), mini jackfruit (Artocarpus heterophhilus), starfruit (Averrhoa carambola), longan (Dimocarpus longan), sapodilla (Manilkara zapota), guava (Psidiium guajava), grapes (Vitis vinifera), and pineapple (Ananas comosus). Small pekarangan is planted with red chilies (Capsicum annuum), cayenne pepper (Capsicum frutescens), eggplant (Solanum melongena), tomatoes (Solanum lycopersicum), mango (Mangifera indica), sapodilla (Manilkara zapota). mini jackfruit (Artocarpus heterophhilus), and water guava (Syzygium aqueum). Medium pekarangan is planted with red chilies (Capsicum annuum), cayenne pepper (Capsicum frutescens), eggplant (Solanum melongena), tomatoes (Solanum lycopersicum), turmeric (Curcuma longa), basil (Ocimum sanctum), galangal (Alpinia galangal), and ginger (Zingiber officinale). Large pekarangan is planted with tomatoes (Solanum lycopersicum), turmeric (Curcuma longa), basil (Ocimum sanctum), galangal (Alpinia galangal), ginger (Zingiber officinale), guava (Psidiium guajava), starfruit (Averrhoa carambola), and rambutan (Nephelium lappaceum).

Key words: urban area, limited spaces, plant selection, pekarangan, Karangbendo