

## Plant species diversity in home gardens which is one of the agroforestry practices

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**Abstract:** The Eastern Black Sea Region is a remarkable region with its rich and varied natural plant species. However, it requires some Agroforestry techniques which can target many products over the same area in the cultivation of the products obtained from soil having limited and rough land structure. Determination the potential of the region is necessary in order to apply these techniques. In this respect, home gardens can give important clues to practitioners. Home gardens are good examples of agroforestry practices that are artificially established and become part of nature. The objective of the present study is to reveal the plant species diversity in the home gardens of the Eastern Black Sea Region. Plant species diversity was addressed by general features such as the distribution of quantities of agricultural products, forest or fruit trees and versatile utilization in home gardens. Accordingly, researches based on interviews and observations with the people living in villages and neighborhoods in Rize and Trabzon were conducted. 22 home gardens in Rize and 26 home gardens in Trabzon were selected. As a result of the study, home gardens in the eastern and southern provinces of Trabzon and the Rize region were richer in plant species diversity. In contrast, the average plant species diversity in Trabzon is generally higher than Rize. The average number of perennial plant and vegetable species diversity (23,73) in home gardens of Trabzon was higher than Rize (20,91). It has also been found that the home gardens of Trabzon region are richer in plant and vegetable species diversity in the very old and new home gardens. Hazelnut is grown together with various fruit forest trees in Trabzon region, and vegetable agriculture is also quite common. It has been observed that greenhouse cultivation has been carried out, with local possibilities, in areas where land is suitable. The need to earn additional income was occurred some reasons such as the richness of natural plant diversity in Rize region, the washing of soil due to the rainfall effect and so poverty of the land, the inability to obtain the expected income from the agricultural product. In recent years, the public has begun to pay attention to cultivate kiwi as second agricultural crop, and beekeeping in their home gardens.

**Keywords:** Home garden, Agroforestry, Rize, Trabzon, Plant species diversity