West Indian avocado is a traditional fruit crop native to the lowlands of Central America and is common in the local markets of Tropical America, Africa and Southeast Asia and as an export crop in the United States. However, despite the importance of the West Indian avocado, the genetic resources of this crop have been largely ignored on a local, regional and an international basis; emphasis being placed more on Mexican and Guatemalan race avocados. The emphasis on the Mexican and Guatemalan races has further labeled West Indian avocados as inferior in quality and caused an erosion of local interest and thus interest in the protection of genetic resources. Fairchild Tropical Botanic Garden (FTBG) is currently active in the collection of West Indian avocados in Central America. Collection objectives include new superior cultivars for the fresh market, rootstock selections with tolerance to phytophthora root rot and salinity, and the creation of new markets. Collecting has concentrated on collaborations with local contacts directly involved in the harvesting and marketing of the local fruit. To date all collections have resulted from seedling trees within home gardens on the Pacific Coast of Costa Rica, Nicaragua and Panama. The results presented are preliminary; however, potential selections have been identified as quality fresh fruit, rootstock material with tolerance of salinity, and the creation of new markets with seedless and novel selections. Phytophthora tolerance remains a question, as the presence of the casual organism has not been confirmed in the area.