



The Spatial Diffusion and Management of Pitaya Cultivation in the Hengchun Peninsula

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The Hengchun Peninsula is located in Pingtung County, the southernmost part of Taiwan. Having a unique geographical location and climate factors, it results in some special industry patterns and cultural activities, such as onion, sisal agave and Gang-Kou tea. With climate conditions limiting the cultivated activities and the choice of crops, rice, yam and peanuts were the main crops grown since the Japanese era until the 2000s. However, in the last 20 years, pitaya has been planted rapidly in the Hengchun Peninsula. Since 2000, the planted area of pitaya grew to 152.9 ha. As the production and planted area accounts for over 35% of Pingtung County, pitaya gradually becomes an important crop. So the main purpose of this article is to find out why pitaya becomes an important crop in this area. This consists of the factors behind farmers changing their cropping patterns to growing pitaya, the factors resulting in the spread of pitaya in the Hengchun Peninsula, and the marketing channels used by farmers to sell their crops. In addition to reviewing articles, a field study was conducted with a sample of 30 farmers, keymen and middlemen. Statistical data was sorted and compiled, and semi-structured interviews were conducted to help to clarify what factors drive the farmers involved in pitaya cultivation.

It was found that pitaya cultivation in the Hengchun Peninsula originated from Bao-li village before spreading to other areas. The area around Bao-li village was also the most concentrated area of pitaya orchards, while the distribution in other areas was relatively scattered. Statistical data also showed a consistent phenomenon in the Hengchun Peninsula where specific cash crops rapidly develop and then gradually disappear after a short period of time. This occurs in sisal agave, sorghum, watermelons and other crops, which are drought and wind resistant crops. This phenomenon reflects that the selection of crops in this area is less, because of the fall and winter's prevailing wind—the downslope winds (also called luo-shan wind) —and the land is not fertile. Thus, once a crop with an economic value higher than previous crops appears, farmers will flock to plant that kind of crop. Farmers will also change their crops due to policy changes or encouragement of local farmers' associations. The results show that farmers thought that pitaya has a lot of advantages in contrast to other crops, such as high profits, ability to tolerate the harsh environment and has a long production period. So many farmers who grew onions, pangola grass, rice and other crops have also used some of their land to grow pitaya. The results about marketing revealed that the channels for distribution comprise of 50% of the farmers directly selling to customers, while the rest sell to local associations or commission men. In addition, it can also be

found that farmers with larger planting areas generally have relatively stable and fixed sales channels when compared with smallholders, and farmers with stable sales channels tend to expand their pitaya cultivation area.