

INSTITUTE OF CROP PHYSIOLOGY OF SPECIALTY CROPS



B.Sc. Thesis

Possibility of increasing the abundance of inflorescences and fruit retention of the north-western Vietnamese mango variety 'Hôi' by choosing the most appropriate cropping system

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ABSTRACT

Mango, also known as the 'king of fruits', is considered to be one of the most delicious and important fruits throughout the whole world. Although mango growing techniques improved a lot within recent years, heavy fruit drop contributes to low fruit yields and great economic losses all around the world.

In this study, the three most common mango growing systems in Yen Chau district, Son La province, Vietnam were investigated: mango monocropping, mango-maize intercropping and home garden systems. Three comparable orchards per cropping system were selected with a total number of 79 trees. The aim was to identify the most appropriate cropping system in terms of increasing the abundance of inflorescences, fruit retention and sustainable income. It could be shown, that there is no significant difference of the yield determining variables between monocropping and intercropping orchards, whereas home garden systems turned out to have the fewest amount of inflorescences per tree at the end of the strongest fruit drop. Furthermore, it could be proved that abundance of inflorescences is correlated to foliage density. An economical assessment showed that mango-maize intercropping is the most beneficial cropping system featuring the highest income per ha and long term sustainability.