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Effects of Nut Quality and Yield by Raising Poultry in Chestnut Tree Plantation

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Abstract : The purpose of this research is to find out the effect of raising poultry in environment-friendly producing area to fruit quality and crop within chestnut tree yield. This study was conducted on chestnut tree cultivation sites raising poultry at intervals of five to ten days for three years in the mountainous area which was located in the middle corner of Chungcheongbuk-do province, Korea. The quality of chestnut fruit and the control effects of harmful insects have been investigated between the sites raising poultry and control sites for three years. As a result, the harvest yielded were two to five kilograms higher in the chestnut tree cultivation sites raising poultry compared with the control site without poultry. Also, for the purposes of determining the price when selling, the ratio of the biggest fruit is higher by 3% to 14% in the chestnut tree cultivation sites raising poultry. In order to investigate the effects of pest control through raising poultry, the ratio of harmful insect species to treatment sites was relatively low compared to control site. The appreciable result is that the control effect of larvae of the chestnut leaf-cut weevil was higher in the position where raising the poultry of 4 to 5 weeks compared to the position where raising the poultry of 12 weeks. This study found that the spread of poultry in the cultivation of chestnut trees increased the fruit quality by improving the size of fruits and lowering the dosage of harmful insect, chestnut leaf-cut weevil. Also, the eco-friendly chicken produced by these mountainous regions is expected to contribute to enhancing the incomes of the farmers by differentiating themselves from existing products.

Keywords : chestnut tree, environment-friendly, fruit quality, raising poultry
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