

Rapid Estimation of Coffee Yield

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SUMMARY

The quadrant based sampling procedure was designed to estimate the two most important components of yield, fruiting nodes/tree and fruits/node. The accuracy of the yield estimated is directly dependent upon the accuracy with which these components are estimated. The estimation procedure demonstrated that it could accurately estimate the components of the yield since, the yield estimated based on these components explained 92% variability in the harvested yield. Two yield prediction equations were developed. The first equation was based on the correction factor obtained by the ratio of the harvested to estimate yield based on the early ripe fruit size. The second was based on the regression equation derived by regressing the estimated yield from first harvest fruit weight against the harvested yield. The regression model explained 92% of the variability in the harvested yield. These equations were validated on the data obtained from a separate experiment. Both these equations predicted with less than 2% error with respect to the harvested yield, however, the equation with correction factor was more accurate than the regression equation. Predicted yield from both the equations was not significantly different. From the harvested yield and, therefore, both the equations can be used effectively for yield prediction in coffee.