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Plant denser for higher *Coffea arabica* yield

December 5, 2021

This Arabica coffee cultivar, IPR 98, displays a high coffee yield. Photo by Gustavo Hiroshi Sera.

Worldwide, average yield of Arabica coffee is very low, leading to low profitability for growers. Brazil has one of the highest averages in the world, yielding around 1,680 kg ha $^{-1}$ of green coffee, but it is still too low to provide high profitability. Planting spacing represents one of the factors that affect both yield and profitability of this crop.

Research out of Brazil and reported recently in *Agronomy Journal* evaluated the yield and profitability of *Coffea arabica* cultivars, including those resistant and susceptible to coffee leaf rust (CLR). Cultivars were grown in a rainfed, dense system in Mandaguari, Brazil, with different planting spacings within rows.

Most cultivars had higher yield and profitability in denser plant spacings (e.g. 0.45 and 0.60 m). After an average of five harvests, the team found that more dense plantings achieved exceptional yields, reaching more than 5,100 kg ha^{-1} of green coffee. One cultivar, IPR 98, exceeded 6,600 kg ha^{-1} of green coffee. The cultivars with the highest profitability were those with the highest CLR resistance; they require fewer fungicide applications and had a lower production cost per hectare.

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Pereira, C.T.M., Sera, G.H., Sera, T., Shigueoka, L.H., Carducci, F.C., Dias da Silva, J.B.G., & Telles, T.S. (2021). Arabica coffee yields and profitability improved by reducing the spacing within the rows. *Agronomy Journal*. **https://doi.org/10.1002/agj2.20901** (in press)

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