



Crop response to localized organic amendment in soils with limiting physical properties

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This 2-year study evaluated the use of rice husk as a localized organic amendment in a soil with limiting physical properties. The research was conducted in a commercial peach orchard planted in 2011 using a ridge planting system. Six soil and water management treatments were evaluated in 18 experimental units, which were set up in the field using a randomized complete block design. The treatments were compared both in terms of soil physical properties and crop response. Soil amendment with rice husk was the most effective technique. It improved soil conditions (soil infiltration and soil porosity), providing a better soil environment for root activity and thereby resulted in better crop performance. Concerning growth parameters, the amended treatment presented the highest overall values without negatively affecting crop water status. These techniques were suitable for mitigating the effects of soils with limiting physical conditions. Localized applications of amendments, as proposed in this work, imply an important reduction in application rates. It is important to consider an efficient use of by-products since there is a growing interest in industrial and agronomical exploitations.