

## SUMMARY

### **Evaluation of agroindustrial residues as substrates for cultivation of pumpkin (*Cucurbita pepo* L. 1753) var. Zucchini in a closed system**

Soilless cultivation has been cataloged as a promising tool in the face of current agricultural needs in terms of food security. By facilitating the cultivation of horticultural species in areas with limited resources in terms of fertile soil, water and climatic conditions; Together with protected agriculture practices, it has been possible to increase the yields per unit area, ensure the quality and safety of the crops and, on the other hand, the decrease in the use of water resources, fertilizers and pesticides. The application of substitute media to the soil for agricultural practice requires the knowledge of its best physical and chemical properties to provide the conditions for plant growth. In the region of Córdoba, Veracruz, numerous companies in their transformation processes, generate natural wastes with potential for use in agricultural production. In this work, mixtures of substrates based on rice husk, coffee husk and tepetzil were evaluated for the cultivation of squash (*Cucurbita pepo* L.) var. Zucchini in a closed fertigation system. The rice husk and tepetzil materials showed values close to those reported as ideal for plant development in terms of their physical and chemical properties. In the interaction of the mixtures with the culture it was identified that; the combination of 25% rice husk and 75% tepetzil provided the best substrate conditions favoring pumpkin growth observed in the variables: stem diameter, number of female flowers, number of fruits, fresh weight and dry weight .

Key words: Agro-industrial waste, *Cucurbita pepo*, Soilless cultivation, Closed system