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Evaluation of calcium absorption by 'yellow' melon with green manure use in the Brazilian semiarid

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In Brazil, melon production is mainly concentrated in Northeast region, where about 95% of the melon is produced. The absorption of large amounts of nutrients in short periods of time is a nutritional characteristic of melon. However, the nutrients extraction by a crop depends on factors related to the growing environment, such as soil type, climate and water management, and internal or plant-related factors, among which we can cite its age and genetic potential. The objective was to evaluate the absorption curve and the calcium contribution by green manure in the development of 'yellow' melon produced in the Brazilian semiarid region. A randomized blocks design, in a split-plot scheme, with four replications, is being used. Plots will be composed by three green manure : natural vegetation, composition 1 (25 % grass / oilseed + 75 % legume) and composition 2 (25 % legume + 75 % grass/oilseed) and two tillage systems with and without plowing. The sampling of melon plants were carried out weekly at 11, 18, 25, 32, 39, 46, 53 and 59 days after transplantation, in a total of 8 samplings. The patterns of nutrient accumulation during the plant growth period followed the time course of dry matter production. The accumulation of nutrients was reduced in the first 18 days after transplantation, with mean values of 4.7 kg ha^{-1} Ca, increased markedly in the following week (25 days after transplantation), flowering period, with mean values of 27.9 kg ha^{-1} Ca and intensifying continuously until the end of life cycle. Composition 1 contributed with the highest amount of Ca to the crop, releasing 139.3 kg ha^{-1} Ca during the melon cycle. The organic residues with a higher proportion of legumes, can meet the demand of Ca for melon up to 39 days after transplantation.

Keywords: cover crop,*Cucumis melo* L.,soil fertility, macronutrient

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