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Type of Presentation-Oral	no
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Title of Abstract Presentation	Influence of chitosan on essential oil content and composition of Mentha arvensis L.
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Authors Biography	Researcher of Plant Physiology in Federal Institute of Minas Gerais – Bambuí/ Brazil. The main researcher lines with physiology and secondary metabolism considering the role of environmental factors on different substances, such as, essential oil, flavonoids, cell wall and non- structural carbohydrates and regeneration of tissues substances.phone number +55 37 98435495 or +55 37 34314900
Abstract Submission	Elicitors are molecules that have the capacity to induce responses in plants, wither in the production of phytoalexins or of secondary metabolism substances. Mentha arvensis L. is a medicinal plant of the Lamiaceae family and is of great importance to worldwide production of essential oil. Its oil is rich in menthol, compound widely used in the cosmetic, food and pharmaceutical industries. There are no reports of the use of chitosan as elicitor for Mentha arvensis L. plants. The aim of this work was to evaluate the development and possible changes in secondary metabolism such as the production and quality of Mentha arvensis L. essential oil, using chitosan as elicitor at different concentrations. Considering that there are no reports using chitosan as elicitor in this species was performed two experiments for determine the dosage of solvent acetic acid and chitosan. Based in first experiment, the experimental design was completely randomized (CRD) with four treatments (control, 0.25% glacial acetic acid solution and 0.06% and 0.125% chitosan in glacial acetic acid) was established after 90 days of growth. The collection to determine the dry mass occurred at times zero and at 12 and 24 hours and 7 days after treatment application. In order to determine content, yield and chemical composition of the essential oil by GC-MS, the plants were collected at seven days. The glacial acetic acid solution and chitosan applied promote variations in the chemical profile and the yield of the essential oil without to cause physical damage to plants.
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