insoluble fraction was the most important fraction of total fibre. Low protein content was observed. No significant differences were observed between the cladodes varieties. Cooking of vegetables, produce an important decrease in soluble sugars, protein and minerals by leaching into the cooking water.

S07.285
Evaluated Some Biochemical Components in Fruits Juice, Pulp and Peel of Lime and Lemon Fruits

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Lime and lemon are the more important of citrus product crops. The large parts of lime and lemon product are used to produce juice or dried fruits. All parts of Citrus (pulp, peel, seed and leaf) are known to be rich in polyphenols, antioxidant compounds and Carotenoid, pectin and dietary fibers. In this investigation some biochemical components in some parts of two local genotypes of lime (Persian lime, Bikhar lime) and lemon (Mayer, Lisbon) fruits were evaluated. The contents of total polyphenols, pectin content, carotenoid and dietary fiber in peel and pulp of fruits were determinated. The some characteristics of juice such as ascorbic acid, antioxidant activity, pH, EC, TSS, titration acidity was also determinate. The analysis of variance showed no significant difference in the contents of total dietary fiber in the genotypes but the contents of total dietary fiber in peel were significantly higher than in pulp ($p<0.05\%$ in all cases). The highest total phenolic content was absorbed in fruit's peel with range of 64.72, 60.16 mg acid Gallic/100 g DW and then in pulp of fruits. The analysis of carotenoid and pectin show the existence of significant difference in the parts and genotypes. In all four fruits, the pectin and carotenoid contents in peel were significantly higher than pulp. Lemons juice fruits showed higher antioxidant activity, TSS and pH than limes, but they show lower ascorbic acid, EC, titration acidity than limes juice fruits. In conclusion all parts of lemon genotypes have highest polyphenol content. Peel and pulp of lime fruits show highest pectin. The peel of all genotypes is rich in dietary fiber and total carotenoid.

S07.286
Nutritional Parameters and Sensory Quality in Cooked Vegetables in MAP

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Ready-to-eat (RTE) products are an essential component of modern lifestyle. Modified atmosphere packaging (MAP) has become a popular form of extending the shelf life of fresh food products because they are easier and faster to prepare. Also fresh or cooked vegetables are popular as side dishes in Atlantic and Mediterranean diets, being considered healthy due to the fact that they are important sources of micronutrients and of a large variety of bioactive compounds. There is now strong evidence that these compounds are effective in preventing cancer and coronary diseases. They are also important in keeping organoleptic characteristics during shelf life. Therefore monitoring these compounds during storage is of maximum importance in order for producers to choose the best gas mixtures (O_2/CO_2/N_2) to be used as packaging atmospheres. As reported by several authors, the presence of high CO_2 concentration conjugated with absence (or residual amounts) of O_2, will affect micronutrients interaction with the atmosphere inside the package and within the food matrix itself. As a consequence pH, water content and organoleptic properties will be affected. We have been evaluating the influence of different gas compositions, mainly air and combinations of 0, 2.5 and 5 % O_2 with 40, 60 and 80 % CO_2 (and N_2 to complete) on the quality of cooked vegetables (cauliflower, cabbage, broccoli, green beans and carrots) during storage at 5 ºC. Colour (Lab system), pH (potenciometry), water content, antioxidant activity of bioactive compounds (spectrometry) and microbial evaluation (plate count at 30 ºC) have been used to follow quality changes over 20 day storage. All samples are analysed by a group of five trained sensory judges for the presence of defects in appearance, flavour and texture. Results for cabbage and carrots show that MAP with low O_2 and high CO_2 percentages enable minor quality changes in all parameters during storage.

S07.287
Bioactive Compounds and Total Antioxidant Activity during the Development of Sapodilla Fruit

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The total antioxidant activity (TAA) of fruits can be influenced by several factors, so that fruits from the same species can vary in activity values due to cultivation system and developmental stage. This work aimed to analyze the influence of the developmental stage on bioactive compounds and TAA of sapodilla (*Manilkara zapota* L.) fruits. Fruits of the two cultivars 'Sapoti Ipacuru (BRS 227)' and 'Sapota tropical (BRS 228)' were harvested at different stages: 90, 120, 150, 180 (physiologically mature) days and ripe, and analyzed for total soluble polyphenols (TSP), vitamin C, yellow flavonols and total antioxidant activity according to the ABTS+ method. The TSP content decreased during developmental period and varied between cultivars, as 'Sapoti' started at 1663.83 and reduced to 67.01 mg galic acid/100 g, meanwhile 'Sapota' maintained higher levels, from 2090.90 to 163.15 mg galic acid/100 g. The vitamin C content decreased from 23.62 to 11.41 mg/100 g and 25.23 to 12.16 mg/100 g for 'Sapota' and 'Sapoti' fruit, respectively. The yellow flavonol content decreased from 11.44 to 3.16 mg/100 g and 6.91 to 1.70 mg/100 g for 'Sapota' and 'Sapoti' fruit, respectively. However, there were no statistical differences found for the vitamin C and yellow flavonol results between cultivars. The TAA decreased from 2382.90 to 33.54 µM Trolox/g and 2481.99 to 132.92 µM Trolox/g for 'Sapota' and 'Sapoti' fruit, respectively. These results show that during the development of the sapodilla cultivars studied, there was a decrease of the analyzed bioactive compound contents and of TAA, thus indicating that developmental stages influences the antioxidant quality of sapodilla.

S07.288
Phenolic Compounds in Olive Tree Leaves: Analysis of Extracts, Infusions and Natural Supplements

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Phenolic compounds are plant secondary metabolites, which play an important role in disease resistance, protection against pests and species dissemination. The interest on these compounds is related with their antioxidant activity and promotion of health benefits. The interest on phenolic compounds has raised attention for its study in olive fruits and other parts of the olive tree [1]. Traditionally, olive tree leaves have been used as a folk remedy against fevers and other diseases, such as malaria [2,3]. Previous investigations carried out on olive leaf extracts have demonstrated hypotensive, hypoglycaemic, hypouricaemic, antimicrobial and antioxidant activities [2]. The antiviral activity of olive leaves extracts against HIV-1 infection and replication has also been referred [4]. The purpose of this work was to study phenolic compounds present in olive tree leaves. Commercial dried leaves of different origins were purchased from an herbalist shop, for comparison purposes, and capsules containing criotriturated leaves were purchased at a Pharmacy. Water:methanol extracts as well as infusions were prepared. Extracts/infusions were analysed by reverse phase liquid chromatography using two chromatographic systems: HPLC-DAD-ED and HPLC with DAD detection in tandem with a triple quadrupole mass spectrometer (Micromass® Quatro MicroTM, Waters®) with an electrospray source that was used in negative mode. This methodology allowed the identification of some common phenolic compounds, namely, hydroxytyrosol, luteolin-7-glucoside, verbascoside and oleuropein. Mass spectrometry methods were implemented in order to quantify oleuropein and other major phenolic compounds in the samples.