S06.313
Antioxidant and Antifungal Activity of Different Parts of Pomegranate (Punica granatum L.) Depends on its Phenolic Content

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Deteriorations of agricultural products occur during storage and it is related to oxidative processes and microorganisms. On the other hand, many plants are the sources of compounds with antioxidant and antifungal activities that might be used as natural preservatives. So to investigate the antioxidant and antifungal properties of pomegranate, a factorial experiment based on randomized design with 5 replications was conducted. In this study the effect of 3 different pomegranate parts (peel, seed, and leaf) and 2 different kind of extracts (aqueous and mechanic) with 4 concentrations (0, 500, 1000 and 1500 ppm) were investigated on 2 postharvest fungi (Alternaria citri and Aspergillus niger). Based on results the mechanic peel extract showed the highest inhibitory effects on mycelial growth (IMG) and spore germination (ISG) with 47.6 and 37.7 percentage respectively. The phenolic compounds of peel extract was also measured 1.8 fold higher than pomegranate leaf extract and antioxidant capacity percentage of 55.3, 35.7 and 16.4 were obtained for peel, seed and leaf extracts respectively. Therefore it seems that the higher percentage of phenolic compounds in the peel and seed of pomegranate could cause the higher anti-inflammatory and antioxidant activity of these plant parts extracts.

S06.314
Thrips spp. Recorded from Commercial Figs, Ficus carica (Moraceae), in the Western Cape Province of South Africa

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During a recent pest and disease survey on selected fig, Ficus carica (Moraceae), orchards in South Africa, internal infestation of fruit by thrips was observed. Packed fruit which were subjected to quality control prior to export were destructively sampled and again thrips infestation was noted. The Western flower thrips, Frankliniella occidentalis and the Onion thrips, Thrips tabaci, were found inside the fig cavity feeding on the flowers, causing the latter to discolor. Additional to life thrips being found inside the fruit cavity, fungal growth was occasionally noted. Thrips specimens were collected and sent for positive species identification to the Biosystematics Division of the Agricultural Research Council – Plant Protection Research Institute (ARC-PPR) in Pretoria, South Africa.

S06.315
Crop Loss on Pomegranates, Punica granatum (Lythraceae), Caused by Early Season Nanophyes spp. (Coleoptera: Apionidae) Infection

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A number of unidentified but distinct Nanophyes spp. (Coleoptera: Apionidae) were found causing damage to pomegranate, Punica granatum (Lythraceae) shoots in South Africa. Pomegranates predominantly bear flowers on new growth, thus damage or loss thereof results in reduced flowering and subsequent lower crop load. Three orchards in geographic area locations of the Western Cape Province in South Africa, incurred heavy Nanophyes infestation pre-flowering, resulting in reduced flowering and lower fruit set. At location 1 the first flower flush was...