Red Spider (Panonychus citri (Mc. Greg.)) (Acarina: Tetranychidae) and Eutetranychus orientalis (Klein) were detected. Different parasitoids, Comperiella bifasciata How. (Hymenoptera: Encyrtidae) and Aphytis melinus DeBach (Hymenoptera: Aphelinidae) and a hyperparasitoid (Marietta sp. (Hymenoptera: Aphelinidae)) were detected. Parasitoid population remained at low levels, however, after May, an increase was observed in parasitoid density in direct proportion to the increase in crustacean population. Parasitoids were detected in all organs of the trees, especially Comperiella bifasciata was the most common species in all application plots. It has been observed that the red crustacean predator Chilocorus bipustulatus (L.) (Coleoptera: Coccinellidae) especially feeds on crustacean individuals found on the branches and trunks of trees.

When the pest population density in different organs of lemon trees is evaluated separately; When the population density of Aonidiella aurantii on the branch and in different plots is examined one by one; It has been determined that the population, which has been in great decline since December, has decreased even more with the effect of deep pruning. It was determined that the pest population was low in the vetch and mowing plots as of the end of April, but there was a slight increase in the chemical and mowing plots. The reason for this increase was attributed to the fact that the fertilized females that spent the winter started to breed from March with the effect of suitable climatic conditions. It can be clearly seen that Aonidiella aurantii remained at low concentrations on leaves in all experimental plots during the winter months. Considering that individuals of Aonidiella aurantii spend the winter in a more sheltered manner on the trunk and branches of the trees during the winter months, and the spring population starts from here, first the shoots, then the leaves and fruits are taken into account, an increase in the population in the leaves was observed in June, that is, in the first generation.

The appearance of Aonidiella aurantii on lemon fruits was detected in early July 2020, and the population density of the pest has increased from month to month. The highest population density of the pest was determined in the farmer application plot, followed by the control plot and the cover crop plot, respectively. The lowest density was found in the grassy plot these three different habitats where field studies were carried out, pit trap sampling method was used to calculate the biodiversity of the Hexapoda species that live on the soil, to identify these species and their habitats, and to determine their usability as an indicator for human activities. The land was checked regularly every week of emergence and the insect species that fell into it were collected with appropriate techniques and stored in the laboratory for collection. Species belonging to the families Lygaeidae, Carabidae, Scarabidae, Gryllidae, Acrididae, Gryllotalpidae were collected from the pit traps and are in the identification phase. The most important problem detected in the pit trap sampling was the dropping of lizard and amphibian species from reptiles into the traps. It was understood from the remains of insects such as wings and legs in weekly samples that these species eat the arthropods in the trap when they fall into the traps.

S06O16
Effect of pyriproxyfen on *Aonidiella aurantii* and its predator *Chilocorus bipustulatus*

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Scale insects have an important place among the factors that cause economic damage to citrus fruits. Citrus Red scale, Aonidiella aurantii (Maskell) and Yellow scale, A. citrina (Coquillett) (Hemiptera: Diaspididae) are among the most important scale pests in citrus plantations. Pyriproxyfen 10 EW (Adeal 10 EW) is one of used insecticides to control these pests. The study conducted to detect the effect of Pyriproxyfen on citrus red and yellow scale population dynamics on leaf, branch, fruit, and trunk of citrus trees were detected during the 28 days trial in 2020 and 2021. Besides, the side effect of the insecticide on beneficial predator, Chilocorus bipustulatus (Coleoptera: Cocinellidae), were determined in the laboratory and field conditions. Random block design was applied to conduct the research with dimethoate (400g/l) as toxic, pyriproxyfen EW (100 g/l), and tap water as control.

Pyriproxyfen has a higher effect on fruit compared to trunk, leaf, and branch. There was very few colonization was detected on fruit. The effect of Pyriproxyfen on citrus red scale population on the leaf has ranged between 60–85 % at day 28 days after application (DAA) for both years. Dimethoate bioassay results show that the pesticide may affect the red scale on the first day of DAA, but surviving ones create a higher population than beginning in some replications because of no predator.

Side effects of pyriproxyfen and dimethoate in the laboratory condition were detected as toxic (%100) according to IOBC class. However, field trials showed that pyriproxyfen on mixed stages of Chilocorus bipustulatus was classified to be "N" (46.48 % and 38.68 %), and dimethoate was toxic in both years according to the IOBC class value. Although, Dimethoate had higher efficiencies on the red scale, its side effect on the predator species showed the necessity of restriction of its usage in citrus orchards. In these conditions, alternative insecticides such as pyriproxyfen come forward with an acceptable side effect on biological control agents.

S06O17
Herbicide Resistance and Other Weed Management Problems in Citrus Orchards

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Weeds are one of the most important problems reducing the yield in citrus orchards. Despite all the weed control, the coverage of weeds can be reached up to 50 %. Horse-weed (Conyza canadensis), johnsongrass (Sorghum halepense), nutgrass (Cyperus rotundus), bermudagrass (Cynodon dactylon), sterile wild oat (Avena sterilis), bindweed (Convolvulus arvensis), wild mustard (Sinapis arvensis), barnyard grass (Echinochloa colona),lambsquarters (Chenopodium album) and palmer amaranth (Amaranthus palmeri) were the main harmful and potential harmful weed species. The most common methods used to manage weeds include herbicide applications, hoeing, and mowing in Çukurova. As a result of increasing use of glyphosate herbicide for controlling weeds, glyphosate-resistant weeds such as horse-weed was increased. Hoeing cause to increase in the population of perennial weed species. As a result of researches, the best methods of controlling weeds were mowing and cover crop applications. On the other hand, while irrigation increases weeding, water-like weeds dominate in the orchards. Fresh animal manures carry seeds of various weed species including invasive ones such as palmer amaranth. With global climate changes, incorrect timing and control methods against weeds cause to increase in indicator species population. As a result, in order to provide successful and sustainable weed control in citrus orchards, integrated weed management must be used. The weed population must be followed and maintained under the economic threshold level. After using alternative management methods, herbicide rotation must be applied at the correct time and recommended doses.

S06O18
Agroecological Weed Management in Citrus

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Weeds are one of the main pests in citrus orchards. Nearly twenty weed species were recorded as the main weeds. Chemical weed control is the most preferable method to control them because of easy use and quick result. As in the several crops, to reduce the environmental side effects of herbicides, to solve resistance problems, and to provide sustainability in citrus orchards, it is necessary the use agroecological management methods. Cover crops, mulching, and mowing were the most effective ways to manage weeds. The experiments show that the cover crops (the most effective species respectively; radish (Raphanus sativus L.), rye (Seceale cereale L.), and hairy vetch (Vicia villosa L.) reduced the weed density and coverage (%). The mulch textile as a mulching material was the most efficient to regulate weed populations. It also reduced water losses and helped other pests control. Mowing by a weed trimmer could be used in small-sized orchards or in citrus tree rows. All these weed management methods will control the noxious weed species and protect beneficial flora and fauna in the citrus agroecosystem.

S06P1
Potential insect vectors of Xylella fastidiosa in Moroccan citrus orchards: case of sharpshooter leafhoppers

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Xylella fastidiosa (*Xanthomonadaceae*, *Gammaproteobacteria*) is a xylem-inhabiting bacterium, gram-negative