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were randomly selected for safety tests: vancomycin resistance, hemolytic activity, and gelatinase. Then, harmless LABs were divided into 2 groups: one group was associated with starter ferment due to its acidification and coagulation capacity, and the other group was associated with an adjunct ferment by the use of citrate and diacetyl production. Genetic characterization was done with 16S rRNA. 783 colonies were isolated, 52% were LAB (21% in milk samples, 16% in AGR, and 15% in cheese). They showed resistance to vancomycin: 73% of LAB from milk samples, 64% and 93% in AGR and cheese samples respectively; none had hemolytic nor gelatinase activity. In milk samples, 100% were *Enterococcus (faecium, durans, and lactis)*, in AGR were 86% (*faecium* and *durans*), and the remaining 14% were *Lactobacillus (brevis, acidophilus, and plantarum)*, in cheese 99% were *Lactobacillus (brevis, casei, coriniformes, and plantarum)*. LABs isolated from AGR were associated with an adjunct ferment, cheese LABs with a starter and starter-adjunct ferment, and milk LABs showed a low technological profile according to the parameters studied. The microbiological diversity found in cheese was not detected in milk. The effect of concentration during the cheese-making process could be an important factor in the selection of microorganisms. High resistance to vancomycin could be attributed to the intrinsic characteristics of the strains.

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ALTERNATIVES FOR THE CONTROL OF PHYTOPATHOGENS: ANTIFUNGAL EFFECT OF ESSENTIAL OILS

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Verticillium dahliae and *Phaeoacremonium parasiticum* are two phytopathogenic fungi responsible for losses in olive trees and vineyards, traditionally controlled using synthetic compounds. Currently, environmentally friendly pest control alternatives are being sought, such as natural fungicides derived from plants. Our objective was (i) to determine the antifungal activity of five essential oils (EOs) from La Rioja native plants and (ii) to evaluate if the combined EOs can interact with each other, enhancing the antifungal effect. The EOs were obtained by hydrodistillation of the aerial parts of *Lippia turbinata*, *Lippia integrifolia*, *Clinopodium gilliesii*, *Zuccagnia punctata*, and *Senecio subulatus* var. *salsus*. EOs antifungal activity was evaluated against *V. dahliae* and *P. parasiticum* by the spore germination inhibition test. Benomil was used as a positive control. Combinations (EOs / EOs and EOs / antifungal) with EOs that reached 100% inhibition of MIC (minimum inhibitory concentration) were prepared and their antifungal effect was determined. To know the type of interaction of the combinations, the FIC index (fractional inhibitory concentration) was calculated. None of the EOs evaluated were able to control the germination of *P. parasiticum* spores. In contrast, *V. dahliae* was completely inhibited by EOs from *Z. punctata* and *C. gilliesii* (MIC = 3 mg/mL). The combinations *Z. punctata* / *C. gilliesii*, *Benomil* / *Z. punctata* and *Benomil* / *C. gilliesii* had an additive antifungal effect. The results obtained suggest that the EOs of *Z. punctata* and *C. gilliesii* have fungicidal potential for the control of verticilliosis in olive trees.

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MORPHOLOGICAL CHARACTERIZATION AND IDENTIFICATION OF BACTERIA ISOLATED FROM SURFACES AT THE “DR. CÉSAR GUERRA” CENTRAL BLOOD BANK OF TUCUMÁN

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The microbiomes of the medical-care environment play an important role as reservoirs of infectious diseases. Our goal was to study microbial communities at the Central Blood Bank. Surfaces from the Production and Molecular Biology services were swabbed and seeded into plates (LB pH7). The identification of the isolated strains was done by MALDI-TOF and morphological characterization by Scanning Electron Microscopy (SEM). The obtained species have clinical importance: as opportunistic pathogens (*Staphylococcus haemolyticus*, *Staphylococcus warneri*, *Clostridium subterminale*, *Brevibacterium casei*, *Staphylococcus saprophyticus*), multi resistance to antibiotics (*Staphylococcus cohnii* ssp. *cohnii*), spore formation (*Bacillus cereus* group, *Bacillus* sp.), or responsible for serious biofilm-related infections (*Micrococcus luteus*, *Burkholderia cenocepacia*, *Pseudomonas stutzeri*). Some isolated bacteria are important in bioremediation (*Dietzia cinnamea*, *Dietzia maris*, *Bacillus subtilis/amyloliquefaciens/vallismortis*, *Pseudomonas stutzeri*, *Bacillus altitudinis/pumilus*); enzyme production (*Bacillus megaterium*). The analysis with MEB revealed in some strains the presence of tubular structures, possibly nanotubes, linked to biofilm production and antimicrobial resistance. Our findings show the predominant bacterial diversity in the blood bank and describe structures possibly involved in pathogenicity mechanisms.

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