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still largely unexplored, therefore the use in breeding programs is limited. The objectives of this study were to phenotypically characterize the peanut germplasm collection of the UNRC genebank and to determine the relationship between accessions, between traits and between accessions and traits. Seventy-nine accessions were evaluated by 17 descriptors under the field conditions from Río Cuarto (Córdoba, Argentine), during the 2018/19 crop season. For the characterization, the list of peanut descriptors suggested by the IBPGR-ICRISAT was partially used. Coefficient of variation showed variability within the collection, corresponding the highest values to the stem, fruit, and seed traits. Principal component analysis (PCA) showed that the first three components explained 70% of the variation for the quantitative plant attributes. The traits that explain the greater variation in PCA include both leaf and plant morphological descriptors and maturity, fruit, and seed descriptors. Cluster analysis resulted in a dendrogram where the accessions are grouped into two main groups. This research work showed a wide variation for the evaluated traits, at the same time that it allowed to identify potential parental genotypes for the development of new advanced commercial cultivars.

A246
DIFFERENTIAL EFFECT OF LIGHT ON THE SYNTHESIS OF INDOLE ACETIC ACID AND PHENAZINE-1-CARBOXYLIC ACID IN *Pseudomonas aurantiaca* SR1

Molina R, Cassán F, Rosas SB
Departments of Natural Sciences and Molecular Biology. Fac. Cs. Exactas, Fco-Qcas y Naturales. National University of Río Cuarto. Río Cuarto, Córdoba, Argentina. E-mail: srosas@exa.unrc.edu.ar

The development of biological products containing beneficial microorganisms for agriculture tends to use various strategies to broaden their spectrum of action and improve inoculation under unfavorable environmental conditions. The objective of this work was to evaluate the effect of light, such as different wavelengths on growth and the ability to synthesize indole-3-acetic acid (IAA) and phenazine-1-carboxylic acid (PCA), two metabolites of great importance for *Pseudomonas aurantiaca* SR1, a plant growth promoting bacteria (PGPR) used as an active principle in the formulation of inoculants in Argentina. To do this, *P. aurantiaca* SR1 was incubated in TSB liquid medium (25% v/v) for 24 h at 30°C and 180 rpm and darkness until reaching an initial growth of OD_{595} 0.1. At this time, the culture was fractionated under sterile conditions into 20 mL aliquots in sterile Petri dishes that were incubated at 30°C without shaking, in a culture chamber under exposure to white light (56 $\mu W/mm^2$); PAR38 blue (11 $\mu W/mm^2$) and PAR38 red (13.9 $\mu W/mm^2$). A treatment maintained in dark conditions was used as a control. At exposure intervals of 24, 48, and 72 h, biomass production (OD_{595}) and growth (CFU/mL) were determined. IAA concentration was evaluated by spectrophotometry (µg/mL) and PCA production was evaluated quantitatively. The results indicated that only the presence of blue light caused an increase in the number of cells (CFU/mL) of *P. aurantiaca* SR1 after 72 h of exposure, while at 48 h no significant difference was observed with the other treatments. The biomass production did not undergo modifications in any of the evaluated conditions. At the level of IAA and PCA biosynthesis, a higher production of the hormone and a lower production of the pigment were determined by exposure to white and blue light, compared to the treatment exposed to red light and darkness, where the biosynthesis of the PCA pigment was stimulated. These results suggest that white and blue light act as positive effectors for IAA biosynthesis while red light and dark do for PCA. Understanding the bacterial response to light is a poorly studied model in non-photosynthetic bacteria such as *P. aurantiaca* SR1. The use of this microorganism as an active principle for the formulation of bio-inputs in Argentina requires a greater understanding of the bacterial response to different environmental effectors, including light, as a necessary strategy to improve the formulation and functionality of such products under agronomic conditions. In this work, we were able to establish that different wavelengths determine a differential physiological response on the production of a phytohormone (IAA) and a pigment (PCA), considered key to the functionality of the microorganism and its ability to promote growth in interaction with plants.

A247
PROXIMAL ANALYSIS OF THE FUNGUS BIOMASS CULTIVATED ON SUGARCANE VINASSE AND ITS POTENTIAL USE IN AQUACULTURE

Rulli MM[1], Riveros L[2], Villegas L[2], Barcia C[2], Colin VL[1]
[1]Planta Piloto de Procesos Industriales Microbiológicos (PROIMI, CONICET), Tucumán, Argentina. [2]Universidad Nacional de San Luis, San Luis, Argentina. E-mail: macarnearulli@gmail.com

The need to find a comprehensive solution to the problem of contamination with vinasse in the province of Tucumán is a priority that concerns both public and private organizations. Vinasse is an acidic effluent with high organic load and salinity, and its use for obtaining microbial biomass could be an excellent strategy to improve the sustainability of bioethanol plants in the long-term. Filamentous fungi biomass contains large amounts of crude protein with essential amino acids that could be used in aquaculture for feed formulations. Therefore, the objective of the present work was to conduct the proximal analysis of the mycelium of a fungus cultivated on sugarcane vinasse to estimate its possible use in fish farming. The microorganism was isolated from a soil contaminated with vinasse recollected in the province of Tucumán. The sequence analysis of the 18S rRNA gene showed 100% identity with different species of the genus *Aspergillus* (accession number NCBI MT165899.1) thereby microorganism was named *Aspergillus* sp. V2. The 96-h-biomass produced on 50% vinasse added with 1 g/L of KH_2PO_4 and 2 g/L of $(NH_4)_2SO_4$ was washed with distilled water and was lyophilized to determine total proteins by the Kjeldahl-Arnold-Gunning method using the universal factor of conversion to protein 6.25, total fat (or lipids) by the Soxhlet gravimetric method, crude fiber by the official AOAC method (OMA-Official Methods of Analysis), moisture by heating under reduced pressure, ash by weight difference after calcining the sample, and in carbohydrates indirect form: Total carbohydrates = 100 – (Proteins + Total Fat + Moisture + Ash). Biomass analysis revealed a protein content of 31.7%, 4.72% fat, 15.8% ash, 4.04% crude fiber, 0.1% humidity, and 43.64% carbohydrate. The results obtained demonstrated that the fungus mycelium complies with the basic nutritional properties for aquafeed formulations, with a protein content within the desirable range (from 26% to 55%). The lipid, crude fiber, humidity, ash, and carbohydrates levels were within the standards for aquafeeds reported in the literature. Based on this study, it is concluded that the mycelium of *Aspergillus* sp. V2 produced from vinasse with the addition of nitrogen and phosphorus, constitutes an alternative and low-cost nutrient source giving added value to a local residue and thus helping to care for the environment.