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BT-P25
IMPROVEMENT OF AROMA IN TRANSGENIC POTATO AS A CONSEQUENCE OF IMPAIRING TUBER BROWNING
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Sensory analysis studies are critical in the development of quality enhanced crops, and may be an important component in the public acceptance of genetically modified foods. It has recently been established that odor preferences are shared between humans and mice, suggesting that odor exploration behavior in mice may be used to predict human olfactory preferences. We have previously found that mice fed diets supplemented with engineered "nonbrowning" potatoes consumed more potato than mice fed diets supplemented with wild-type potatoes (WT) (Llorente *et al*., 2010. Plant Biotechnol J. DOI: 10.1111/j.1467-7652.2010.00534.x).This prompted us to explore a possible role of potato odor in mice preference for "nonbrowning" potatoes. Taking advantage of neuroscience paradigms, several experiments were conducted with mice and humans on the basis of olfaction alone. These experiments showed that "nonbrowning" tubers, in addition to their extended shelf life, maintain their odor quality for longer periods of time than WT potatoes. Taken together, these findings also suggest that our previous observations might be influenced, at least in part, by differential odors that are accentuated among the lines once oxidative deterioration takes place. To our knowledge this is the first report on the use of an animal model and neuroscience paradigms applied to the sensory analysis of a transgenic crop.

BT-P26
SiO_2 IMMOBILIZED POLYPHENOLS FROM YERBA MATE (*Ilex paraguariensis*) AS HEAVY METAL BIOSORBENT
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The control of industrial effluents and polluted waters has motivated the development of assorted solutions. The low cost sorbents are an alternative to the traditional and more expensive methods, such as ion exchange resins. Low cost sorbents are those that require little or non processing and are typically abundant industrial secondary products or wastes. The biosorbents are low cost sorbents obtained from a biological source, such as saw dust or rise husk. Some vegetable biosorbents have the capability of adsorbing heavy metals. This is related to polyphenolic compounds that interact with the metals within the plant. In this work, by means of the Sol-gel chemistry, a polyphenol extract had been immobilized within a SiO_2 network. The SiO_2 polymers give the biosorbent a mechanical support for its application and removal from polluted waters. As source of polyphenols, the residual dust of yerba mate (*Ilex paraguariensis*) production was used. Tetraetoxy silane was chosen as SiO_2 precursor and glutaraldehide has been used as the crosslinking agent. The biosorbent obtained were able to remove Pb(II), Cr(III) and Cr(VI) from contaminated solutions at acidic pHs were it is know that the polyphenol-metal complex is stronger. A kinetic and adsorption capacity analysis (Langmuir, Freunlich, Dubinin-Radushkevich) are presented with the characterization of the material (SEM, BET).

BT-P27
SCREENING OF DECOLOURIZING YEASTS WITH DYE ASSIMILATION ABILITY FROM LAS YUNGAS RAINFOREST
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Environmental pollution by textile-dye containing wastewaters is a matter of worldwide concern. Yeasts bioremediation, a poorly explored and less exploited methodology, stands out as an interesting approach supported on their metabolic diversity and high growth rates. In this work, a screening protocol based on dye tolerance and dye assimilation ability on solid media was performed with a 2000 mg/L dye mixture. Thirty-nine yeast isolates from “Laurel del Monte” underlying soils from “Las Yungas” (Tucumán, Argentina) were obtained. Based on decolourization haloes and colony dyeing, 15 isolates showed the highest decolourization ability on agar plates containing Vilmafix® Blue RR-BB, Vilmafix® Red 7B-HE, Vilmafix® Black B-V and Vilmafix® Yellow 4R-HE, either alone or as a mixture. Screening on agar plates with synthetic media supplemented with each dye as sole C or N source, led to the selection of 10 isolates. Microsatellite RAPD analysis enabled the discrimination of these isolates into six groups. Following tests consisted on the analysis of growth and decolourization kinetic profiles, along with the production of Manganese peroxidase, laccase and tyrosinase activities in dye-supplemented (200 mg/L) liquid media. Time-dependent supernatant spectra, growth curves and enzymatic activities led to the selection of the two most promising isolates for future experiments.

BT-P28
CHARACTERIZATION OF NEW ACTIVE TRANSPOSONS ISOLATED FROM INSECTS
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Transposons are mobile DNAs spread in most organisms including some viruses. The ability of these sequences in mobilizing from one physical position to another can be a decisive factor in evolution processes due to genomic rearrangements (gene interruption, deletions, inversions, translocations, etc.). In Eukarya, transposable elements (TEs) are a significant percentage of genomes showing a great diversity in gene content, size and mechanism of transposition. According to the above, TEs are classified into two main groups: Class I (retrotransposons) and Class II (DNA transposons). Insect cells are the best system to study and produce baculoviruses, a pathogen used as bioinsecticide, protein expression system and gene therapy or vaccine vectors. These viruses have big dsDNA genomes and structural mutations produced by transposition processes could be the main force to their evolution. With the aim to discover and characterize new active transposons from insects, we transfected prokaryotic plasmids in insect cell lines (Sf9 and Sf21 from *Spodoptera frugiperda*, Hi5 from *Trichoplusia ni* and UFL-Ag-286 from *Anticarsia gemmatalis*) and then we recovered modified plasmids with DNA insertions by *Escherichia coli* transformation.
The proposed strategy has allowed isolating and sequencing 4 TE´s never before described and Piggybac, a transposon with many applications in biology.