nacional de presupuestos mínimos sobre la gestión de agroquímicos; ampliar estudios sobre toxicidad y ecotoxicidad con especies nativas y en ecosistemas locales; incrementar estudios epidemiológicos y de monitoreo de ATZ en zonas rurales, urbanas y periurbanas; establecer zonas de amortiguación para su aplicación; revisar la clasificación toxicológica y establecer estrictas pautas de manejo. Se discutió el cumplimiento de los requisitos para considerar su inclusión en el Anexo A (Eliminación) o B (Restricción) del *Convenio de Estocolmo*. Respecto al *Convenio de Rotterdam*, se recomendó elaborar un estudio de riesgo ecológico y para la salud humana de la ATZ que permita evaluar la posibilidad y conveniencia de su inclusión en el Anexo III. Se espera que el presente informe sirva como insumo para las autoridades competentes y sea tenido en cuenta en los análisis que se realicen sobre la comercialización y los usos actuales de este herbicida.

01B.12 The Treasure Is in the Soil: A Discussion on Risk Assessment Schemes for Soil Organisms in Brazil

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Soil organisms are key contributors to soil health, being responsible for generating and maintaining a significant portion of the ecosystem services in this compartment *e.g.* soil quality and composition, carbon and nutrient cycling, decomposition *etc*. The maintenance of soil health and the ecological services provided by these organisms is of interest of farmers. When it comes to pesticide use in agriculture, it is necessary to evaluate the effects on soil organisms in order identify possible risks and develop strategies either to prevent or mitigate them. To accomplish this goal, an environmental risk assessment (ERA) must be able to identify possible concerns and their impact by considering the exposure and the sensitivity of non-target organisms. The ERA will also help to define strategies to protect soil organisms and the ecological services they provide. In Brazil, the regulatory frameworks are evolving from a hazard-based analysis to an ERA-based analysis. In this sense, a published risk assessment scheme (FAO 2018 and Daam *et al*. 2019) was evaluated, where by the risk assessment scheme may consider specific regional criteria for tropical environments by making a tiered approach where the degree of complexity increases as the evaluation progresses. We have applied this approach to 9 off-patent pesticides, equally divided in fungicides, insecticides and herbicides. At the first Tier, the exposure was calculated using a generic equation, commonly used by regulatory agencies such as the US-EPA and the UK HSE, which yields an Estimated Environmental Concentration in soil (EEC_{soil}). Nineteen pesticide molecules were assessed to select the most critical rate to estimate the EEC_{soil}.To validate the risk scheme, two of these molecules were toxic references that are knowingly toxic to soil organisms. Ecotoxicological data was retrieved from a public data bank (PPDB) and the level of concern (LOC) was set to 1.0, as used by some regulatory agencies. Using this strategy we have been able to go through several tiers (Tier I up to TIer III), as some of the tested crop protection failed lower tiers and explore refinement options. We understand that this is an initial exercise and an expansion of this assessment is recommended, including more pesticides, so we can understand whether this risk assessment scheme is suitable in the Brazilian context.

01B.13 Priority Pesticides in Chile: Predicting Their Environmental Fate, Bioaccumulation, and Transport Potential

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There is a growing interest in knowing the environmental behavior of organic compounds approved for daily use, mainly because of their associated risks and the known damage they can cause to people's health and to the environment. The high number of compounds that have been synthesized complicate a traditional experimental analysis, therefore making the use of computational estimations to evaluate potential persistence, bioaccumulation, and transport very useful. The main objective of this study was to estimate the environmental behavior of pesticides commonly used in Chile, to identify those that pose a higher potential risk to the environment. We generated a database of pesticides authorized by the *Servicio Agrícola Ganadero* (SAG) and used the Estimation Interface from the US Environmental Protection Agency "EPI Suite" to estimate their distribution coefficients, half-lives, and bioaccumulation potential. Additionally, we used the "Pov & LRTP Screening Tool" to estimate their overall environmental persistence and transport efficiency; and to generate a P-B-LRT score, which considers persistence, bioaccumulation, and long-range transport potential. All results were evaluated using a family of polychlorinated biphenyls (PCB), a group of known persistent organic pollutants, as reference. Based on this analysis, a list of 21 priority pesticides marketed in Chile was generated. Most of these pesticides showed similarities in their molecular structures and will require further experimental analysis.

01B.14 Preliminary Toxicological Evaluation in the Conlara Basin (San Luis, Argentina) Through the Use of Different Bioindicator Species

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Anthropic activities can be a source of pollution and have a great negative impact on biodiversity. The Conlara River basin is located northeast of San Luis (Argentina), being an area of tourist activity and mixed agricultural exploitation (livestock and intensive agriculture). The objective of this work was to evaluate the current state of the basin by combining bioindicator species and ecotoxicological tools. Five sampling sites were selected along the basin from S1 (upstream) to S5 (downstream). Water and sediment samples were taken from each site to carry out the bioassays on the following bioindicators: *Oocistys* sp., *Hyalella* sp. and *Rhinella arenarum*. In the samples, heavy metals and physicochemical parameters were determined. The bioassays were carried out to evaluate mortality and under controlled laboratory conditions at different exposure times according to the species: *Oocistys* sp. (48h), *Hyalella* sp. (96h) and *R. arenarum* (168h). For data analysis, multivariate statistical techniques (PCA) and Probit analysis were used to obtain toxicological parameters such as lethal time 50 (TL50) and growth inhibition (IC50). The values of the physicochemical parameters showed an increase in conductivity, organic matter, phosphorus and heavy metals as the water course progresses (S1 to S5). In the case of *Oocystis* sp., a significant decrease was observed from S2 that allowed estimating IC50 values: S2 = 126.05h, S3 = 64.24h, S4 = 43.87h and S5 = 28.96h. Mortality analyzes revealed only TL50 = 10.88h values in S4 for *Hyalella* sp. while in S5 the mortality was 100% in *Hyalella* sp. and *R. arenarum*. The first 2 components of the PCA explained 84.05% of the total variability. This analysis showed that S4 and S5, in contrast to S1, S2 and S3, were characterized by high concentrations of heavy metals and organic matter, related to an inhibition in algae and high mortality in invertebrates and aquatic vertebrates. In addition to this, analyzing macroinvertebrates as ecological indicators, more sensitive families (Ephemeroptera) identified in S1 and more tolerant organisms

(Chironomidae) found mainly in S4 and S5 were observed. This preliminary toxicological analysis tested on different aquatic bioindicators shows a deterioration downstream of the basin (S4 and S5) that could be explained by the anthropic practices of the region.