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# Spatial interpolation of pesticide drift from hand-held knapsack sprayers used in potato production

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Tropical mountainous regions in developing countries are often neglected in research and policy but represent key areas to be considered if sustainable agricultural and rural development is to be promoted. One example is the lack of information of pesticide drift soil deposition, which can support pesticide risk assessment for soil, surface water, bystanders and off-target plants and fauna. This is considered a serious gap, given the evidence of pesticide-related poisoning in those regions. Empirical data of drift deposition of a pesticide surrogate, Uranine tracer, were obtained within one of the highest potato producing regions in Colombia. Based on the empirical data, different spatial interpolation techniques i.e. Thiessen, inverse distance squared weighting, co-kriging, pair-copulas and drift curves depending on distance and wind speed were tested and optimized. Results of the best performing spatial interpolation methods, suitable curves to assess mean relative drift and implications on risk assessment studies will be presented.