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**The Cameroon situation**

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**Estimation of dispersal parameters**

**Indirect methods**

An indirect estimation of average dispersion ($\sigma$) will be obtained from the evolution of cline landscape structures for neutral or selected markers.

**Direct methods**

A dispersal function of the pathogen will be obtained through the spatial distribution of lesions resulting from an inoculum source of resistant strains to a fungicide. The source will be placed at the centre of an experimental design of banana plants implanted in an area free of fungicide resistance.

**Estimation of selection**

Selection coefficients will be estimated, from changes in the frequency of resistant strains under selection in artificial isolated experimental designs. Fungicides whose resistance is determined by qualitative and quantitative traits will be considered.

**Potential cost of fungicide resistance**

Possible changes in aggressiveness of resistant strains versus susceptible strains will be evaluated through artificial inoculations of resistant and susceptible strains.

**Evolution of fungicide resistance and management strategies**

Finally, parameters of dispersion, selection and fitness will be implemented in a model in order to simulate the spatio-temporal evolution of fungicide resistance considering the real agro-system in Cameroon and under different management strategies.