

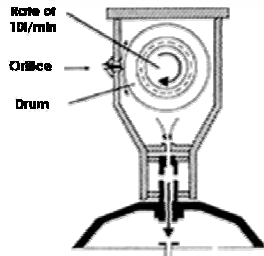


# Comparison Hirst/Coriolis® for pollen count MONALISA project

## Context

Within the field of MONALISA European LIFE project developed to validate a new method for pollen and allergen detection, the innovative Coriolis® continuous cyclonic air sampler is compared with the usual Hirst pollen trap.

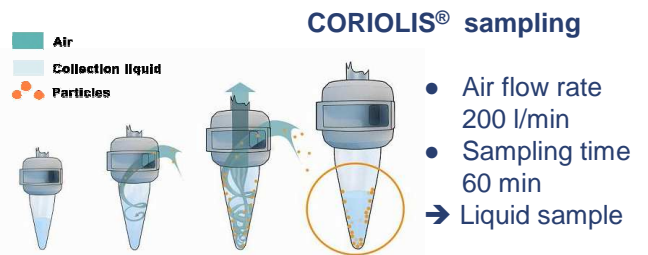
## Protocol



### HIRST sampling

- Cylinder rotation 2 mm/h
- Air flow rate 10 L/min
- ➔ Adhesive band

- Band recovered and cut out in 24h segments
- Segments coloured for microscopy
- Sample totality read by optical microscope x400



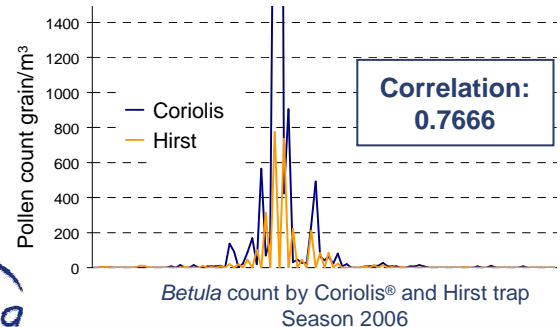
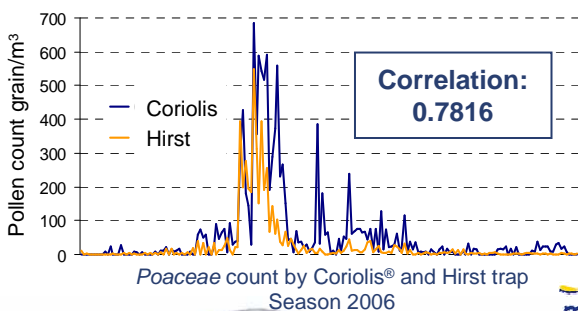
### CORIOLIS® sampling

- Air flow rate 200 l/min
- Sampling time 60 min
- ➔ Liquid sample

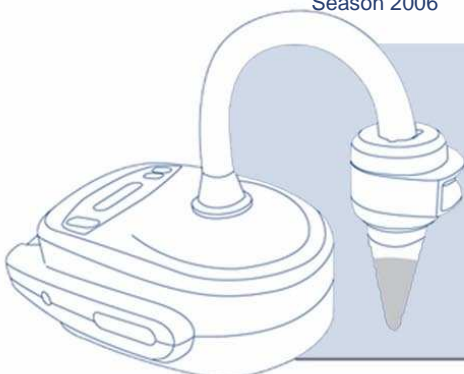
- Centrifugation and elimination of the supernatant to keep a 2 ml residue
- Homogenization of the residue and preparation of 3 slides
- 7 horizontal lines of the 3 slides read by optical microscope

## Results

Daily comparison with chi-square test for the total pollens, specific ones and fungi's spores (*Alternaria, Ambrosia, Artemisia, Betula, Cupressaceae, Parietaria/Urticaceae, Poaceae,*)



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## Conclusion

The efficiency of Coriolis® and Hirst are both representative and equivalent. The use of Coriolis® liquid sample gives access to immunological analyses to assess the allergenicity/antigenicity of the collected pollens

