

# Ionisation Reduces Dust Levels in Poultry Houses

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## Non-cage systems for laying hens

High levels of dust concentrations: respirable dust (<4 µm) and inhalable dust (<100 µm) have a negative impact on **working conditions** and **welfare of the laying hens**

## Countering high dust concentrations through ionisation



- airflow (0,5 m<sup>3</sup>/sec) between collection surfaces
- airborne particles are subjected to a powerful ionic spray
- particulate matter settles onto a collection surface from where it is flushed with water on a weekly basis.

Respirable dust concentrations were measured on a person and by stationary samples. Inhalable dust concentrations were measured on a person.



## Results

Ionisation reduces dust levels in poultry houses below the maximum allowed standard for dust concentration in working conditions for humans according to the Belgian law.

