



LED light in poultry houses

Recent developments in lighting technique made LED-lighting available for use in animal husbandry. LED-lights are durable, shockproof and low in energy use, which makes them very attractive to install in laying hen houses..

Quality of LED-lights

There are many manufacturers of LED with varying quality. Points of attention when buying LED are:

- The armature for LED should be resistant to high pressure water cleaning and high concentrations of NH₃.
- Although LED produce less heat than other light sources, it does produce heat and should be sufficiently cooled to ensure a long life span.
- Cheaper LEDs will have more colour reduction over time.
- The durability of LED depends largely on the electronics used as power control. Cheaper LEDs may have cheaper electronics that break down easily.



Flicker fusion frequency

Flickering of lights, caused by the electric frequency, may cause stress and may lead to feather pecking. This especially is the case for low-frequency light sources (50 or 60Hz). If the frequency is higher than 100Hz, it will not be noticed by poultry and thus doesn't cause problems.

In principle LED has a flat rate currency and thus no flickering. However, the electrical dimming is often done by frequently switching the LED on and off, which in fact does result in a flicker frequency.

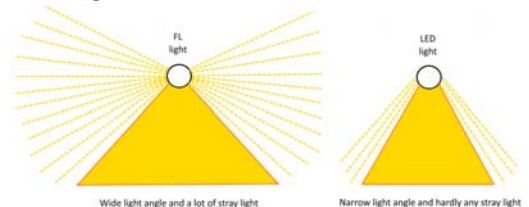


Photo with smartphone will show 'bands' if the light source has a low frequency

If the on-off switching is in high frequencies, there will be no effect on the birds. Some light sources, especially when dimmed to low light levels, have low frequency on-off switching and thus may affect the birds.

Other points of attention

- Light from LED has a more narrow bundle of light compared to FL or incandescent lights. This has to be taken in mind when determining the number and position of LED-lights in a henhouse.



- Simply replacing the old lights for LED may result in a less even distribution of light, leading to problems with floor eggs or feather pecking.
- LED lights on the ceiling often leave the ceiling dark, which possibly effects bird behaviour .
- When using LED strings the connections should be checked regular for erosion. Erosion causes heat production and thus the start of a fire.

LED-lighting is a good and affordable light source. Be sure to compare all options, select the proper type, quality and number of lights.