

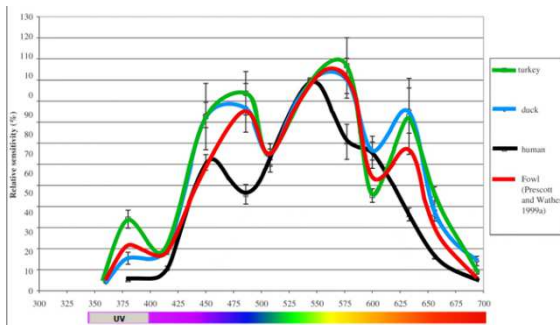


Vision of poultry

Chickens need light to see their environment, move around, find food and interact with conspecifics. Also a light stimulus is needed to induce egg production.

What do chickens see?

Poultry eyes have one extra receptor in the eyes. Therefore they can see UV-light, which humans can't. Also chicken eyes are more sensitive to specific colours than human eyes. Especially in the blue and red spectrum of light chicken eyes are more sensitive than human eyes.



Flicker fusion frequency

Many artificial light sources have a flicker frequency, caused by the electric currency. This is known from 50Hz FL tubes. The flickering of FL-light of 100Hz is mostly invisible for chickens. Chickens see flickering under certain circumstances:

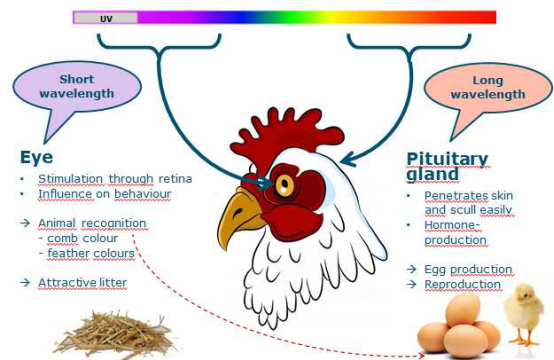
- At high light intensities the threshold for seeing flickering is lower
- Especially if UV is present chickens see the flickering more easily

Chickens don't see flickering anymore if there is less than 5 lux of light and no UV present.

How does light affect a chicken?

Light is influencing birds in two ways:

- It penetrates the eye and is processed by receptors in the retina, which sends signals through the nerves to the brain.
- It penetrates through the skull and stimulates hormone production necessary for egg production.



Especially the long wavelength light (orange-red) can easily penetrate the skull. UV does not penetrate the skull and is only seen through the eye.

Ability of hens to see flickering of light

