

LIGHTING



LIGHT

energy saving

perfect light spread

calm animals

more growth

lower mortality

Broilers and breeders

Light is a crucial factor in the modern poultry industry, and light intensity and lighting programme, in their turn, play a very important role in this field.

A recent study, led by a team of scientists of the Hebrew University, Israel, has shown that the one-colour light system considerably stimulates the growth of the chickens. During the study four separate groups of chickens were exposed to different colours of light: green, blue, red and white (control group). In comparison with the chickens which were exposed to the blue, red and white light, the ones that were exposed to the influence of the green light showed a significant increase in weight within three days. This extra increase in weight was due to the increase in the muscle cells.

After many experiments with the green and blue lamps, we came to the conclusion that the combination of the two did not lead to the desired results. We replaced the blue lamps with 7 watt green lamps; and the results were clearly better as there is more light which is much needed in the startup period. Another advantage of this usage of 7 and 11 watt lamps is that it gives an opportunity to turn on and off the light lines separately, so it is possible to create dim areas.

Plus points of Tulderhof lighting for broilers and breeders

More light during the startup period

A dimmer is no longer necessary.

PL lighting is one of the cheapest and most economical energy systems.

Note that with the electronic adapter you can save more than 50% on the energy costs compared with the electromagnetic adapter.

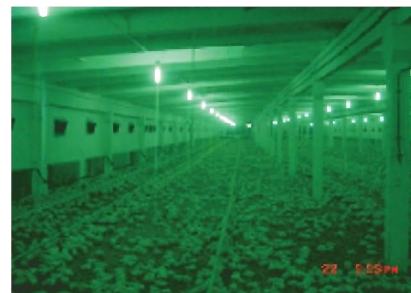


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Broilers and breeders raise: Green light

This lamp has high light intensity, 1200 Lumen. The energy delivery of this lamp is very low.

- * animals become more quiet
- * lower mortality
- * more bodyweight
- * lower feed conversion



Blue light to catch the hens easier

This lamp has a low light intensity, 300 Lumen. The energy delivery of this lamp is high. This lamp is mostly used at the end of the cram period of turkeys.



Layers and breeders: Red and white light

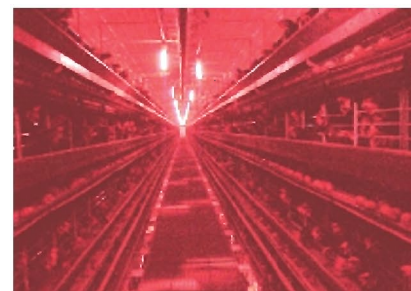
Red light is used to keep the animals stable. When they peck each other it is really better to switch to the red light.

White light makes sure that the hens do not lay eggs on the ground. That is why it is better to use more white light in the beginning when the hens did not develop a habit to lay eggs in a certain place.

These lamps have a light intensity of 600 Lumen. The energy delivery of these lamps is very low.

- * layers become quieter
- * lower mortality

The red light is used in rooms with laying hens and breeder hens. Red light improves the fertilisation percentage and prevents cannibalism. At the same time laying hens are quieter and are exposed to less stress.



Another advantage of this lamp is the considerable energy saving. Compared to standard and fluorescent lamps, saving of 85% and 50%, respectively, can be reached while the light intensity remains the same. The lifetime of the lamp is about 10 000 hours which is almost 10 times longer than a normal light bulb.

The scheme below shows which light colour. is the best for various animal spieces.

SUBJECT	COLOUR	LUX	LAMP	Lamp	Colour	Lumen
Broilers	Green	25 – 10	11 / 7 Watt	11 Watt	Green	1200
Broilers	Green/ Blue	25 – 5	11 Watt	7 Watt	Green	700
Breeders raise	Green	25 - 10	11 / 7 Watt	11 Watt	Blue	300
Breeders	Red	30 - 20	11 Watt	11 Watt	Red	600
layers raise	Green	25 - 10	11 / 7 Watt	9 Watt	Red	400
Layers	Red	12 – 5	11 / 7 Watt	7 Watt	Red	300
Turkeys	Blue	15 – 8	11 Watt			
Pigs	Blue	Ca. 15	11 Watt			



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