the round spermatids spermatocytes ratio was the highest on long days. But after the 24th week, these long days were unable to maintain the testicular weight and the germ cell production, while they remained constant on short days.

Increasing the daily photoperiod from 8 to 16 L (+ 20 mn/wk; lot 3) resulted in a slightly more precocious testis growth. By contrast, the testis growth and the onset of spermatogenesis were much delayed under decreasing photoperiods (20 mn/wk; lot 4). So, on the 24th week, the testis weight was only 10 gm in this lot, vs 20 gm under long photoperiods (lot 1). But testis weight became very high in lot 4 (22.5 g) after 8 weeks of rapidly increasing photoperiods (+ 1 h/wk).

Applied after short days (8 L/16 D) when cockerels were 8 weeks old, such rapidly increasing photoperiods allowed the testes to reach adult weight as soon as the 16th week of age.

In every lighting schedule, testis weight was decreasing as soon as adult cockerels were subjected to long photoperiods.

These observations show that the lighting schedule is an important factor in the fertility of cockerels.