

## **CPRC Update**

---

### **THE LONG AND SHORT OF BEAK TREATMENT**

Beak treatment (trimming, shortening) is a common practice intended to maintain the welfare of commercial layer, turkey and breeder flocks. While there are clear benefits to beak treatment, the practice does require scrutiny to ensure that it is done properly and does not cause undue pain or suffering. Hank Classen, Karen Schwean-Lardner and their team at the University of Saskatchewan have been studying the short- and long-term effects of common beak treatment techniques, and the accuracy with which they are performed in the field.

#### **Why treat?**

Birds naturally explore their environment by pecking items around them. They also peck each other to work out where they fit into the flock (i.e. establish pecking order). This behaviour can become a problem in the commercial setting where aggressive birds, and those that learn aggressive behaviours, may interact with many others. Feather-pecking and cannibalism can quickly spread throughout the flock. Treating the beak dulls its sharp point and makes it harder for a bird to pull feathers from its flock-mates. Properly treated birds can drink, feed and preen normally, but are less likely to cause injury to others.

#### **How is it done?**

Beak treatment is sometimes performed with a heated blade (HB). A more recent and increasingly common technique exposes the beak to a short burst of high energy infra-red light (IR) that initially leaves the beak intact and results in the sharp tip eroding off a week or so later.

#### **What are the effects?**

Dr. Classen's group observed layer chicks shortly after being treated as well as throughout their production cycle. HB treatment resulted in less chick activity and more resting behaviour one day post treatment, which suggests there is some initial pain associated with the procedure. IR-treated chicks showed no such behavioural changes and are probably experiencing little to no pain at this time. Proper beak treatment does not appear to cause chronic (long-term) pain.

IR-treated chicks weighed less than non-treated chicks early in life, but moderate treatment (either method) had no long term effects on body weight. Egg production of the mature flocks was also not affected. Aggressive behaviours, feather pecking and mortalities due to cannibalism were significantly decreased with beak treatment. The latter was almost non-existent in IR groups. Feather condition scores were much improved in beak-treated flocks.

#### **Are commercial birds treated properly?**

The researchers assessed the accuracy and consistency of beak treatment on four commercial layer flocks from different hatcheries (two HB, two IR) at 21-24 and 53-60 weeks of age. Overall, IR treatment was more precise (less variable) than HB and resulted in fewer beak abnormalities, the frequency of which was very low regardless of treatment method.

It has been established that it is best not to treat too much of the beak. The researchers therefore worked with hatcheries to see if equipment should be adjusted to account for differences in chick size. Hatching eggs (and therefore resulting chicks) were sorted into small, medium or large categories. All chicks were treated using the same IR procedure. There were no treatment effects on the behaviour or production parameters measured in the experiment, suggesting it is not necessary to sort eggs/chicks on size prior to IR treatment.

Overall, Dr. Classen's results suggest that both HB and IR methods are accurate and can effectively maintain the welfare of layer flocks. Neither method appears to have negative long-term effects on the bird when treatment is moderate and completed at day of hatch. IR results in less immediate pain, maintains an intact beak during early brooding, permits beak healing before loss of treated tissue, is slightly more precise, and is more consistent, even among different equipment setups or hatcheries. The researchers are currently working with commercial hatcheries to develop standard operating procedures for industry.

This research was supported by CPRC and the Natural Sciences and Engineering Research Council. For more details on any CPRC activities, please contact The Canadian Poultry Research Council, 350 Sparks Street, Suite 1007, Ottawa, Ontario K1R 7S8, phone: (613) 566-5916, fax: (613) 241-5999, email: [info@cp-rc.ca](mailto:info@cp-rc.ca), or visit us at [www.cp-rc.ca](http://www.cp-rc.ca).

The membership of the CPRC consists of Chicken Farmers of Canada, Canadian Hatching Egg Producers, Turkey Farmers of Canada, Egg Farmers of Canada and the Canadian Poultry and Egg Processors' Council. CPRC's mission is to address its members' needs through dynamic leadership in the creation and implementation of programs for poultry research in Canada, which may also include societal concerns.