

Infrared Beak Treatment

Gains adaptation to Brazilian poultry farming already shows positive results on the farms

News arrived with Planalto Postura, a Brazilian company that invested in equipment and in a partnership with Nova-tech Engineering company responsible for adaptations that have improved the technique in Brazilian birds.



On the left, General Manager of Planalto Postura and, on the right, the grower Eduardo Mizohata

New experiments on beak treatments are being conducted in Brazil in partnership between the Planalto Postura's hatchery and the traditional Granja Mizohata in Bastos (SP). The results obtained are being considered an important advance in this sensitive point of the management of commercial birds. A partner of Planalto Postura, poultry farmer Eduardo Mizohata, began the tests receiving Lohmann one day of age LSL Lite-NA flocks that already came with IRBT done at the

hatchery and with subcutaneous injection technology, both created by the American company Nova-Tech Engineering, LLC (NTE).

The results of the first flock were so satisfactory that the grower gradually increased the orders of birds with infrared beak treatment. After the beginning of the year, all the flocks received were already being 100% treated with this technology, and since then, the birds have presented weight gain, uniformity and sanity above the farm's average.

The producer Eduardo Mizohata confesses that he began working with this technology with some fear, but believing in the proposal of the technical staff of the Planalto Postura that had faced the challenge of this process. The general manager of Planalto Postura launched the idea of partnership with the executive Marco Antônio Soares who understood that the technology of the IRBT had evolved a lot in the past years and still hadn't been adopted widely in Brazil due to the absence of customization for each bird strain.

Considering that infrared treatment is best for the bird, due to better body weight gain and animal welfare, and that the world's trend is to prohibit beak treatment with hot blades, in 2017 Marco Antonio got in touch with Nova-Tech's CEO in the United States to propose a study to understand why in Brazil the technique had not been implemented more, since it reduces labor, is safe from a sanitary point of view, and it adapts more to the requirements of animal welfare.

"Nova-Tech's team was very understanding and the partnership was proposed: Planalto Postura offered its technical team to adjust the infrared treatment to the reality of Brazilian layer farms and Nova-Tech would hire technicians to give all the support required in Brazil. In view of this, we are encouraged to propose the trials with Granja Mizohata, who is an old partner and could help us understand what would be necessary to adjust on infrared treatment to work in Brazil ", says the general manager of Planalto Postura , very satisfied with the results. **He admits there are still very few customers who already have flocks with the new treatment, but given the good results in the field, he believes it will not be long before other customers join the infrared beak treatment, which is done in the hatchery since then.**

"The advantages are immense," general manager of Planalto says enthusiastically. "To begin with, we are seeing better flock development, labor savings, and lower health risks. Even those who have staff inside the farm to do the traditional hot-blade treatment often need to do it over night to take advantage of the milder weather hours and preserve the birds. However, this ends up sacrificing employees, generates extra costs and, of course, can jeopardize the work, because it is difficult to work at dawn with the motivation and accuracy needed for such a delicate task. "

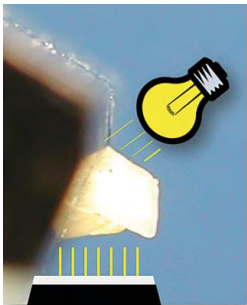
This is what poultry farmer Eduardo Mizohata understood in practice. **"After Planalto Postura started adapting the IRBT to our reality, the birds come to us ready go. We don't have the need for hot blading the beaks on the farm, which greatly facilitated the field work, and we see great savings"**. This was possible, according to Marco Soares, because the Planalto Postura team studied the cases very well, both successful and unsuccessful ones. He understood that everything

depended on two factors: the uniformity of the chicks to be treated (more uniform the beaks are, the better is the treatment process) and the adjustments in the equipment according to the size, flock age, and strain of the chicks.

In the last few flock placements, the IRBT protocol was discussed among the Planalto Postura's, Nova-tech's, and Granja Mizohata's teams. **The results have been considered a success**, according to data from the production control sheets that Granja Mizohata accompanies daily.

According to poultry farmer Eduardo Mizohata, the beaks of infrared treated chicks done at the hatchery, fall between 10 and 15 days after arrival at the farm. **One important detail: even if the beaks fall on different days, the flocks have not presented performance differences. On the contrary, flock uniformity has been a high point of experience, both in feeding and water consumption, which is reflected on animal health, weight gain, and weight uniformity.** "Our experience with the Lohmann Lite-NA flocks with infrared beak treatment has shown rates of weight higher by 15% when compared to other flocks with conventional hot blade beak trimming," says the producer. **Also, it is very important to point out that there was no occurrence of cannibalism among the chicks.**

Another thing that Eduardo Mizohata points out is **beak length uniformity on the flocks with infrared treatment:** "In relation to the flocks that we have with the conventional treatments with hot blades, the uniformity of the size and shape of the beak is much higher. With this, the flock with infrared treatment becomes much healthier, with greater resistance and uniform development, and a superior vaccine response." Another point that stands out is that from the beginning the **birds were more resistant to the attack of mites and lice. Probably, due to the fact that the beak profile is even and at the right angle, birds are able to get rid of lice with their natural pecking behavior, which prevents infestation.**





Olímpio Miranda Junior (Technical manager- Vet): Better results with IRBT than with V trimming (hot blade)

PLANALTO'S ADAPTATIONS AND RESULTS

Satisfied with the results made by Nova-Tech, adapting the technology to the reality of Brazilian Layer Market, Marco Soares points out that, given the good results at Granja Mizohata, other customers that have Lohmann LSL-NA and Lohmann Brown-NA birds already began to ask for the technology. This will lead Planalto to invest in more equipment from the American company to offer more customers access and ease to the new technology. The manager believes that, as genetic research advances to reach the strains with smaller and rounded beaks, infrared treatment will be the most appropriate solution to dispense external labor, health risks, and stress on birds.

"With the adaptations we made on the beak treatment, **finally the infrared treatment becomes the most adequate solution to this important chick management**", he points out, recalling that there was a determining factor to make this possible: Planalto Postura invested in fertile egg sorting machines to standardize egg size. In this way, the chicks of each flock are born with uniform weights and sizes, making infrared treatment more efficient. "This investment in standardization was critical to the success of the whole process. We are very confident with the good results in the field," he says.

HIGHER INDEXES

The veterinary Olímpio de Miranda Júnior is also "more and more" excited by the results he sees in the field. He is the technical manager of Planalto Postura with extensive experience in hatchery and layer birds. He follows closely - along with the technical team Planalto Postura - the development of the first flocks of Lohmann LSL-NA chickens at Granja Mizohata, which received the infrared beak treatment. To make a comparison, the first flock placements were divided between IRBT and hot bladed birds and were evaluated. As the results arose, the proportion of IRBT birds increased, and the Granja Mizohata is now committed to have 100% of the flocks receiving the infrared treatment done in the hatchery.

The first aspect that **Olímpio highlights is that chicks with infrared beak treatment had excellent weight gain, uniformity and mortality rates- well above the control flock that received the treatment in a conventional manner with hot blades.** "As a parameters reference, we pointed out

that at the 3rd week of age, the IRBT group had an average weight of 200 grams, while the hot bladed group presented an average weight of 170 grams", informs the veterinarian, pointing out that this is an excellent indicator that the new treatment saves the bird and allows a much better development in its growth.

Currently the first test placement at Granja Mizohata is in the Laying phase. There were no cases of cannibalism or any challenges in the breeding and rearing phase. "Now that the flocks are in the laying stage, we will continue to monitor its performance, with particular attention to production rates and the behavior of the birds at this stage, so we can have complete parameters of the flock until the end. So far, **there have been no incidents related to the size / shape of the beaks,**" says Olímpio Miranda, who is quite satisfied with what he has been seeing on the field, not only in Granja Mizohata but also in other farms in São Paulo, Goiás, Minas Gerais and Northeast. For him, it is important to monitor Lohmann LSL Lite - NA flocks in several regions to gather more data to prove the success of the new beak treatment method. "Our decisions are technical and based on analyzes of our database, without emotional decisions or just opinions," reinforces the technical manager of the company.

Nova-tech engineering



The chicks first

Nova-Tech Engineering, LLC (NTE) developed the infrared beak treatment method. It is an American company specialized in robotic systems and its focus is the poultry industry. Headquartered in Willmar (Minnesota - USA), the company was founded in 1992 and has a global presence.

In order to attend needs of countries with a hot climate and study adaptations of the technique to the reality of Brazilian farms - a market especially important for the company - Nova-Tech hired two Brazilian professionals. The Agronomist Engineer Daniele Duarte Johnson (photographed above) - a woman from Rio Grande do Sul who lives in Minnesota, where the company is located - and veterinarian Mauricio Nascimento, who lives in Brazil. Both follow closely the trials involving Lohmann LSL-NA flocks and the machine configuration changes made at the request of Planalto's technicians.

Nova-Tech's engineer said in an interview with O Hora da Ovo that the beak treatment protocol being tested with Planalto Postura customers had different headholders, reflectors, and lamp powers. "We have launched a new headholder and reflector for countries with tropical climate, which allows the reduction of lamp power and eliminates cases of beak regrowth, preventing the beaks from growing unevenly again. We are still in the testing phase and we will be able to make some small changes, but we are confident that this new machine configuration will eliminate the need for hot blade re-trimming. "

Daniele explains that the headholder determines precisely the area of the beak to be exposed to infrared energy and the lamp power is completely adjustable. Thus, the amount of energy sent to the beak tissue can be determined, while a reflector treats the bottom beak. "It is the infrared energy that interrupts the blood flow to the treated area and in approximately 7 to 21 days this area will fall completely, allowing the bird to gradually become used to the new beak length."

Daniele has been to Bastos to analyze the results of the work done at Granja Mizohata and to check how the birds have reacted to the new beak treatment. Aware of the results, Daniele says that for some years Nova-Tech has been able to reach the ideal beak profile in the vast majority of the markets in which it operates, performing only the infrared beak treatment in the hatchery without a subsequent re-trimming with hot blade in the farm. "In countries with hot climates, open barns, and higher LUX intensity such as Brazil, India and Southeast Asia, we need to treat larger areas of the beaks as they grow faster under these conditions. In Brazil, with the introduction of the new headholder and reflector, we are very close to the ideal beak profile, where the top and bottom are the same size when the bird reaches the beginning of production phase," she points out.

Since Brazil is one of the most peculiar and challenging markets in the world, Daniele indicates that, "Our slogan is **The chicks first - our biggest concern is the welfare of the birds**. Therefore, we strive to treat the beaks as little as possible so that the chick expresses the maximum of its genetic potential and productive capacity. We have accomplished greater flock uniformity, high body weight, and very low mortality rates. One point Nova-Tech's professional emphasizes is the drinkers used in the barns: "**We have done a lot of testing and we have proven that for poultry farmers to be successful with birds with infrared treatment, it is crucial that barns are equipped with 360 Nipple or Vertical nipple + supplementary drinkers (infant, gutter ...) for at least the first 10 days of bird's life.**