



## Hairy foot and skin warts



To combat hairy foot and skin warts, otherwise known as papillomatous digital dermatitis (PDD) the dairy industry is using chemical solutions such as copper sulfate and formalin in foot baths for cattle and then dumping the residual chemicals directly into the environment without any regulation, raising unknown environmental and health risks. Hairy foot and skin warts is a condition plaguing the dairy industry throughout the world. Extremely contagious and expensive to treat, hairy foot and skin warts have major implications on the dairy industry causing a reduction of milk production ranging from 20 to 50% . The most effective treatment for the disease is through the use of topical antibiotics; however this is not practical or economical due to the large scale of most dairy farms. Instead, formalin and copper sulfate footbaths now serve as the most common treatments for the disease on dairy farms most of the countries. Currently, there are no recommended disposal methods for the chemicals after they have been used. The baths are dumped out without regard to environmental, human, or animal safety. While studies have been conducted on the acute effects of these chemicals in a controlled environment, little is known about the potential long term chronic effects of dumping formalin and copper sulfate waste into the environment. Due to the harmful effects of acute exposure, the potential exists that the dumping of this chemical waste has serious negative environmental effects. Replacing copper sulfate or formalin with Envirolyte anolyte or in other words Electrolyzed Water in the usual foot baths proved to be at least as effective as these chemicals.



Hoof bath

with fresh anolyte and whereas the polluted water is drained, is a much more effective method to replace these chemicals and treat hairy foot warts. Dosing 0.5 liter of anolyte per cow keeps footbaths effective regardless the number of cows walking through these foot baths.



Hoof bath



Hoof spraying

Having said so, by far the most effective method proved to be spraying. Spraying the hoofs and skin of the cows, in particularly prior to milking gives sufficient contact time for anolyte with the hoofs and skin. The run-off anolyte helps to disinfect the milking parlor. Spraying the hoofs and skin with anolyte prior to milking in the milking parlor cures and prevents all hairy foot and skin warts. Foot warts heal within 2-4

weeks without using any copper sulfate or formalin. Replacing copper sulfate or formalin with anolyte (pH ~ 6.8 - 7.5, ORP ~800+ mV at 300 + ppm) is a major improvement. Not only is anolyte save to use, it is much cheaper and anolyte has not a single negative environmental effect. The run off anolyte is biodegradable and poses no threat. Above findings were obtained from field trials on several dairy farms in EU.



Skin spraying



Before anolyte treatment

After anolyte treatment

For more information visit [www.enviolyte.com](http://www.enviolyte.com).

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